United Nations Educational, Scientific and Cultural Organization

Sustainable Development Goals

MEASURING GENDER EQUALITY IN SCIENCE AND ENGINEERING:

THE SAGA SURVEY OF GENDER EQUALITY IN SCIENCE, TECHNOLOGY AND INNOVATION POLICIES

Working Paper 3

STEM and Gender Advancement (SAGA)

United Nations
Educational, Scientific and
Cultural Organization

STEM and Gender Advancement (SAGA)

Improving Measurement and Policies for Gender Equality in Science, Technology and Innovation

MEASURING GENDER EQUALITY IN SCIENCE AND ENGINEERING: THE SAGA SURVEY OF GENDER EQUALITY IN SCIENCE, TECHNOLOGY AND INNOVATION POLICIES

Working Paper 3

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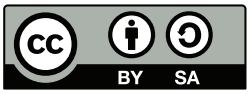

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- Roberta Pattono (Directorate-General for Research and Innovation of the European Commission)
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- Papa A. Seck (Chief Statistician, UN Women)

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Feedback

The UNESCO SAGA team is interested in hearing how your organization is using The SAGA STI Policy Survey, as your comments and feedback will help to improve it.

All correspondence should be addressed to saga@unesco.org

Acronyms and abbreviations

GO-SPIN	Global Observatory of Science, Technology and Innovation Policy Instruments
R&D	Research and Experimental Development
S&E	Science and engineering
SAGA	STEM and Gender Advancement
SDGs	Sustainable Development Goals
Sida	Swedish International Development Cooperation Agency
STEM	Science, technology, engineering and mathematics
STI GOL	Science, Technology and Innovation Gender Objectives List
STI	Science technology and innovation
UIS	UNESCO Institute for Statistics
UNESCO	United Nations Educational, Scientific and Cultural Organization

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1. Introduction

This working paper aims to set standards for the collection of information on gender equality in policies and instruments in national STI systems.

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This working paper provides the guidelines to implement the SAGA Survey of Gender Equality in STI Policies and Instruments (SAGA STI Policy Survey), and presents a core model questionnaire with instructions on how to complete it. It is envisioned that the survey will be used and adapted to different regions, countries and by various users. It aims to set standards for the collection of information on gender equality and policies and instruments in national Science, Technology and Innovation (STI) systems and provides instructions for users of the SAGA STI Policy Survey. An updated and ready-to-use version of the questionnaire is available on the SAGA website: https://en.unesco.org/saga/documents.

The SAGA STI Policy Survey is an output of the STEM and Gender Advancement (SAGA) project,[1] a global UNESCO project supported by the Government of Sweden through the Swedish International Development Cooperation Agency (Sida). SAGA's main objective is to offer governments and policy-makers a variety of tools to help reduce the current global gender gap in science, technology, engineering and mathematics (STEM) fields existing at all levels of education and research. By reaching this objective, the SAGA project will contribute to increase the visibility, participation and recognition of women's contributions in STEM.

The project's goals are achieved by using two approaches, namely, by surveying policies affecting gender equality in STEM, and by identifying and designing relevant indicators. Thus, the SAGA project assists Member States around the world by:

- building capacity for the collection of data on gender in STEM;
- improving the measurement and evaluation of women's and girls' situation in science;
- identifying gaps in the policy mix and improving national STI policies related to gender based on evidence.

The SAGA STI Policy Survey provides the main input to develop the SAGA Policy Matrix and the STI Gender Equality Footprints, proposed in the SAGA Toolkit (Working Paper 2). These three tools have been created to support policy-makers and all other users in integrating and monitoring gender equality in STI and in the design of gender-sensitive and evidence-based policies to strengthen the gender policy agenda.

The SAGA STI Policy Survey was developed with significant input from SAGA's Advisory Committee and other international experts. During the pilot phase survey users from around the world have also contributed to the improvement of the tool through their extensive comments.

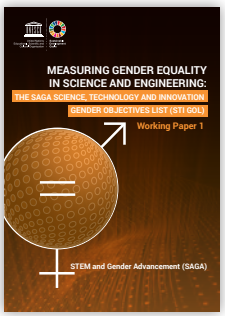
1. For more information on the background of the project, visit the SAGA website: http://en.unesco.org/saga.

Box 1: The SAGA methodology

The SAGA STI Policy Survey is part of the SAGA methodology on measuring gender equality in science and engineering (S&E), a series of four working papers freely available on the UNESCO SAGA website: http://en.unesco.org/saga

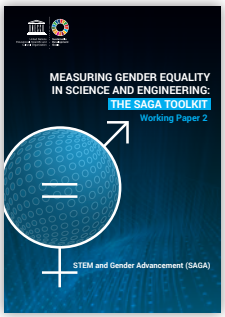
- Working Paper 1: SAGA Science, Technology and Innovation Gender Objectives List (STI GOL); http://unesdoc.unesco.org/images/0024/002450/245006E.pdf
- Working Paper 2: The SAGA Toolkit; http://unesdoc.unesco.org/images/0025/002597/259766e.pdf
- Working Paper 3: The SAGA Survey of Gender Equality in STI Policies and Instruments;
- Working Paper 4: The SAGA Survey of Drivers and Barriers to Careers in Science and Engineering.

STI Gender Objectives List (STI GOL)



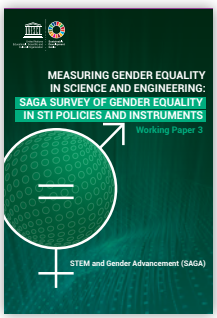
Working Paper 1

Measuring Gender Equality in Science and Engineering: the SAGA Toolkit



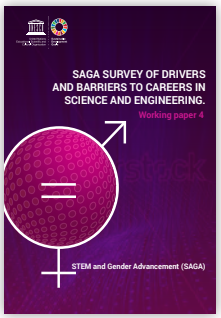
Working Paper 2

SAGA Survey of Gender Equality in STI Policies and Instruments



Working Paper 3

SAGA Survey of Drivers and Barriers to Careers in Science and Engineering



Working Paper 4

The SAGA STI GOL (UNESCO, 2016) provides a framework on which the SAGA tools are grounded. It provides a complete overview of all aspects of gender equality in STI, viewed from the policy-making perspective.

The STI GOL is based on seven different areas of objectives or policy impacts:

1. Change perceptions, attitudes, behaviours, social norms and stereotypes towards women in STEM in society;
2. Engage girls and young women in STEM primary and secondary education, as well as in technical and vocational education and training;
3. Attraction, access to and retention of women in STEM higher education at all levels;
4. Gender equality in career progression for scientists and engineers (S&E);
5. Promote the gender dimension in research content, practice and agendas;
6. Promote gender equality in STEM-related policy-making;
7. Promote gender equality in science and technology-based entrepreneurship and innovation activities.

Each of the seven gender objectives are broken down into sub-objectives for more in-depth coverage of policies. In order to assess the achievement of each objective, corresponding indicators are suggested in the SAGA Indicators Matrix, included in the SAGA Toolkit.

The SAGA Toolkit sets out a conceptual and methodological framework with a series of tools to integrate, monitor and evaluate gender equality in STEM and assist in the design of gender-sensitive and evidence-based policies. It is intended for national governments, statistics offices, national science agencies, policy-makers, decision-makers, education and research institutions, development agencies, and evaluators who are concerned with reaching gender equality in STEM.

The SAGA Toolkit relates STI policies and instruments to relevant indicators, which facilitates the review and analysis of the potential gaps in the policy mix and available statistics.

The Toolkit is composed of the following tools:

- A set of **definitions and classifications for STI, STEM and S&E**.
- The **SAGA Policy Matrix**, a tool to categorize and organize all the STI policies and policy instruments collected using the SAGA STI Policy Survey by Gender Objective.
- The **STI Gender Equality Footprints**, tools to illustrate the profile of gender equality in STI. Each of the footprints allows for cross-national or temporal comparisons, and facilitates the identification of specific policy areas where gender equality initiatives can be strengthened. Two STI Gender Equality Footprints are proposed in the Toolkit, each with a different aim and list of parameters:
  - The STI Gender Equality Policy Footprint; and
  - The STI Gender Objectives Footprint.
- The **SAGA Indicators Matrix**, a list of indicators that are most relevant for the objectives and sub-objectives of the STI GOL and a guiding tool to review the information available and evaluate gender equality in STEM.
- **Methodological guidelines** to draw information and indicators from various sources for the evaluation of gender equality in STEM.
- The **SAGA Survey of Gender Equality in STI Policies and Instruments**, described in this working paper, a tool for gathering information on gender equality within policies in STI.
- The **SAGA Survey of Drivers and Barriers to Careers in Science and Engineering**, a tool to better understand the drivers and barriers to S&E careers.

Download the SAGA Toolkit at: http://unesdoc.unesco.org/images/0025/002597/259766e.pdf

2. The SAGA Survey of Gender Equality in Science, Technology and Innovation Policies

The SAGA Survey of Gender Equality in STI Policies provides valuable information for the development of national STI policies or plans to support the country's strategic, benchmarking and policy mapping initiatives.

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The SAGA STI Policy Survey

The SAGA STI Policy Survey is a tool for gathering information on gender equality within policies on STI from national institutions, agencies, and universities. The SAGA STI Policy Survey inventories policies (and policy instruments) deliberately designed to promote gender equality in STI, as well as policies with indirect or differential effects on gender equality in STI. It is based on the conceptual approach and methodology of the UNESCO Global Observatory of Science, Technology and Innovation Policy Instruments (GO-SPIN) (see Box 2).

The SAGA STI Policy Survey collects information on how gender equality in STI is addressed in:

- national and subnational policies and plans;
- legal and institutional framework;
- policy operational instruments; and
- plans, initiatives, and measures that are implemented by national research institutions and universities.

Box 2: UNESCO Global Observatory of STI Policy Instruments

UNESCO's Global Observatory of Science, Technology and Innovation Policy Instruments (GO-SPIN) is a methodological tool to map national STI landscapes and analyse STI policies and their implementation.

The UNESCO GO-SPIN programme was launched in 2012 to strengthen the understanding of STI policies and to help countries to reform and upgrade their national STI systems. The programme promotes evidence-based policy-making and policy learning among countries by enabling the benchmarking of policy instrument performance among countries using the GO-SPIN analytical framework and open access data platform. The aim of GO-SPIN is to generate reliable and relevant information on the different landscapes of STI policies around the world. The publicly available information comes from national GO-SPIN surveys, combined with government reports and statistical data from UIS and other international sources (UNESCO, 2011).

The programme builds capacities around concepts of policy instruments and delivers training to national officials on the use of the standard practice for data collection and analysis, the GO-SPIN survey. The information gathered in the survey implemented in various countries feeds the GO-SPIN multilingual platform, which provides key information and indicators on STI policies, legal frameworks, and operational policy instruments. Other important outputs of the programme are the GO-SPIN Country Profiles published by UNESCO.

For more information on GO-SPIN, see http://en.unesco.org/go-spin

2.1 Purpose

Improving gender equality in a country requires, as a first step, to assess the current status of men and women, and then to determine which interventions are likely to be the most useful to promote the desired change. The SAGA STI Policy Survey provides valuable information that can be used for the development of national STI policies or plans that can feed into the country's strategic, benchmarking and policy mapping initiatives. The information collected through the SAGA STI Policy Survey allows users to cluster policies, detect flaws in the policy mix, and establish an agenda for addressing gaps in the policy coverage. This will support the monitoring of gender equality in STI and the design of gender-sensitive and evidence-based policies to strengthen the gender policy agenda.

2.2 Users

The SAGA STI Policy Survey is intended for the use of:

- **National governments and policy-makers,** responsible for gender and STI policies, interested in improving gender equality policies and instruments or in developing STI Gender Action Plans;
- **Research institutions and universities,** among other institutions;
- **International institutions,** including UN agencies, for which the SAGA STI Policy Survey can be used to conduct assessments and monitor country performance.

Other users may include:

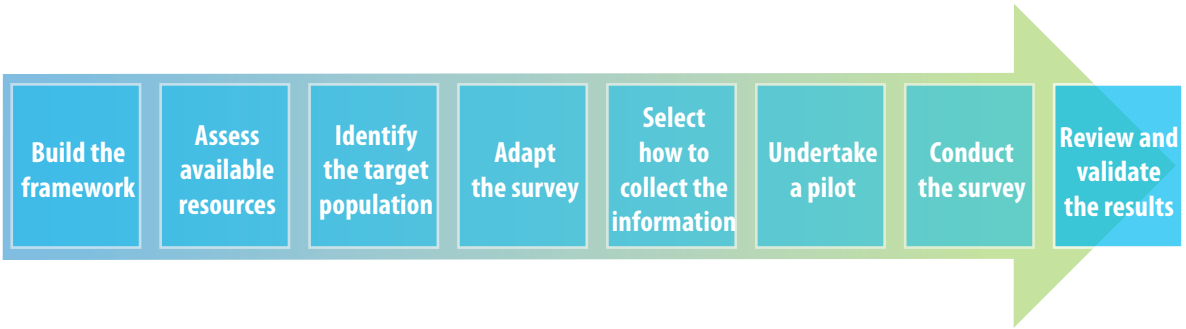
- Scientific and technological community and researchers;
- International governmental and non-governmental organizations; and
- Civil society organizations.

In this document, all of these are referred to as the users and administrators of the survey.

2.3 Implementing the SAGA STI Policy Survey

The implementation of any survey is in fact a systematic process of gathering information; in the case of the SAGA STI Policy Survey, the information collected is related to gender equality in STI. Thus, the administration of the SAGA STI Policy Survey consists of a series of steps and decisions as depicted in Figure 1.

Figure 1: Survey implementation process



■ Build the framework

In order to ensure ownership by all relevant stakeholders, it is essential to ensure a wide consultative process at the beginning of the implementation. The creation of a working team, sometimes referred to as the survey users in this paper, with the participation of relevant institutions and key stakeholders, is therefore highly advised to ensure the highest impact and effective use of resources. The management and coordinating of the survey by a leading team will ensure the highest results are achieved within a set timeline. It is also recommended to document the entire survey implementation process, thereby developing the appropriate documentation necessary for the execution of the activity and for peer review.

■ Assess available resources

In order to ensure ownership by all relevant stakeholders, it is essential to ensure a wide consultative process at the beginning of the implementation. The creation of a working team, with the participation of relevant institutions and key stakeholders, and of a timeline is therefore highly advised to ensure the highest impact and effective use of resources.

Users should prepare a detailed assessment of their capacity to implement the instrument, from technical, financial, and organizational perspectives. The type and amount of resources needed will depend on the size of the national STI system and purpose of the implementation of the survey.

■ Identify the target population

Users should map all the ministries, national agencies and national institutions that are implementing policies, instruments and actions towards the seven different gender objectives identified in the SAGA STI GOL (see Annex). When the target population is small and easy to contact, it will likely be feasible to survey the entire STI system. However, when the target population is large or widely dispersed, it is advisable to contact at least the main ministries and institutions of the total population of interest.

In many countries, different authorities and institutions are responsible for carrying out activities related to STI and gender, but this varies across countries. The following list might be a useful road map in identifying the key institutions:

- Ministry or high authority in charge of Science, Technology and Innovation;
- Ministry or high authority in charge of Education;

- Ministry or high authority in charge of Gender Equality or Women's Affairs;
- Ministry or high authority in charge of Employment, Workforce, and Labour;
- National agencies and institutions (such as academies, research centres and universities) implementing actions towards gender equality in STI.

The SAGA STI Policy Survey can be applied to different groups depending on the specific interests, such as:

- **Ministries and government institutions** responsible for STI policy or gender equality in STI (such as the Ministry of STI, Education and Gender Equality, among others).
  Download a ready-to-use model questionnaire on the SAGA webpage.

- **Universities or research institutions**, in order to survey institutional plans, initiatives and activities aimed at gender equality in STI.
  Download *a ready-to-use model questionnaire on the SAGA webpage.*

It can also be applied at national or subnational level.

Adapt the survey

The objectives and the use of the results should be defined. When developing the survey it is key to have clear objectives and to understand what can be gained by implementing it.

When planning the survey implementation the questions to be included should be identified taking into account the objective of the survey as well as the characteristics of the national STI system. Users can select specific questions from the survey or use it in its entirety. Adaptation may be made to the survey content, format, or visual presentation to better fill the needs and the language of its users, or the characteristics of the national STI system.

Select how to collect the information

Different methods can be used to collect the information depending on the number of selected target institutions, their size, the timeframe for the survey implementation, and the resources available. The SAGA STI Policy Survey can be distributed online by embedding it on a website, using an online survey development cloud-based software, or it can be administered in an interview (by telephone, face-to-face, etc.). Interviews should be conducted by trained and experienced interviewers and usually are associated with a higher cost in terms of resources and time than an online survey. However, the response rates are usually higher. Alternatively, online surveys provide respondents with more flexibility as the survey can be accessed at a time that is convenient to them. A model on-line survey questionnaire, developed by UNESCO, can be requested at *SAGA@unesco.org*.

The decision between the different methods of information collection may be influenced by the research goals, the timeline, the sensitivity or complexity of the STI system, and the characteristics, abilities and resources of the potential respondents (e.g., their Internet access and experience with filling surveys). Lastly, and very importantly, the budget available for conducting the survey should be seriously considered during the planning phase.

To avoid unintentionally influencing the respondents, in the case of interview-administered surveys, training should be organized for interviewers. In-depth questions and well-trained interviewers can improve drawing concrete policy conclusions from the results.

Training on how to collect information might be organized for respondents to make them more familiar with the process and concepts. It is also suggested to document the entire process, and to develop appropriate data documentation necessary for peer review.

■ Undertake a pilot and re-adjust the survey

A survey should always be tested on a small scale before its official launch to identify potential weaknesses in the survey design and allow for improvement. Different methods for testing questions can be used, such as respondent debriefing or expert review.

■ Conduct the survey

After adjusting the survey based on the results from the pilot, it can be sent to all participants. A number of follow-up mechanisms can be used to increase response rates. For instance, follow-up emails should be sent to those who have not responded to the survey as a reminder at pre-determined intervals.

■ Review and validate the results

Once the survey has been carried out and the results analysed, a wide consultative process between the survey steering committee, experts, and key stakeholders should be organized to review and validate the survey outcomes. Such an open exchange will contribute to better understanding and contextualizing the results. Involving stakeholders in the assessment of the survey results will not only increase their sense of ownership, but will also raise the quality of the policy conclusions drawn from the survey.

2.4 The model questionnaire: guidelines and instructions

The model questionnaire provides a set of questions aimed at gathering information on gender equality in STI in policies and policy instruments. It is divided into three sections: Section 1 gathers general contact information on the surveyed institution while the two remaining sections collect information on policies, the legal and institutional frameworks (Section 2), and on policy instruments and activities (Section 3), as shown in Figure 2. Section 3 has two different versions of questions depending upon the recipient. One version collects key information on STI policy operational instruments implemented by **ministries and high authorities** (Sub-section 3A); the second one collects information on the measures and activities carried out by **universities and research institutions** (Sub-section 3B).

Figure 2: Structure of the model questionnaire

For a complete overview of gender equality in STI in a country, institutions other than the ministry in charge of STI may, or should, be surveyed. The questions provided in the core model questionnaire should be adapted for the ministry, high authorities or institution to which the survey is sent, especially for Sections 2 and 3.

Questions in Section 2 may need to be adapted based on the institution surveyed. For instance, the ministry in charge of STI should be asked "how does the national STI plan address gender equality?" When surveying the ministry of education or a research institution, the question could be reformulated as "how does the national educational plan address gender equality in science?" or "how does the institutional policy incorporate gender equality in science?" etc.

The model questionnaire is presented as a stand-alone survey and is designed to be simple. However, users are encouraged to review and organise the questions according to their needs and the national policy priorities. In this document, the person or institution managing the implementation of the survey is referred to as the administrator and the person responsible for completing it is referred to as the respondent.

To tailor the model questionnaire, administrators should:

- make sure all **core questions** have been included in the questionnaire; these are the questions marked with a star (*);
- **reformulate** and add any other questions considered necessary;
- add a **survey introduction**, and instructions on how to answer questions, when needed;
- add an **address** for the respondents to return the completed questionnaire to the administrators.

Core questions

The model questionnaire includes questions which are considered as core questions and essential to collect the most relevant information for the administrators to be able to have a good overview of gender equality in STI policies and instruments. These core questions are marked with a star (*) and should be included in every questionnaire to ensure a complete coverage of the STI policy mix.

The total length of the questionnaire should always be taken into account when adding additional questions, as a longer questionnaire may discourage respondents from completing it entirely.

Reformulate questions

Users are free to review questions and to incorporate extra ones to reflect national or institutional needs or requirements. All modifications and adaptations can be introduced on the condition that the underlying concept of the original model question is maintained and covered in the modified question. If the questionnaire is translated, questions should be translated to convey the message of the core questions as closely as possible.

Survey introduction

The questionnaire should be introduced to respondents with a short text on the purpose and the objectives of the survey to inform them on why and how the information collected will be used.

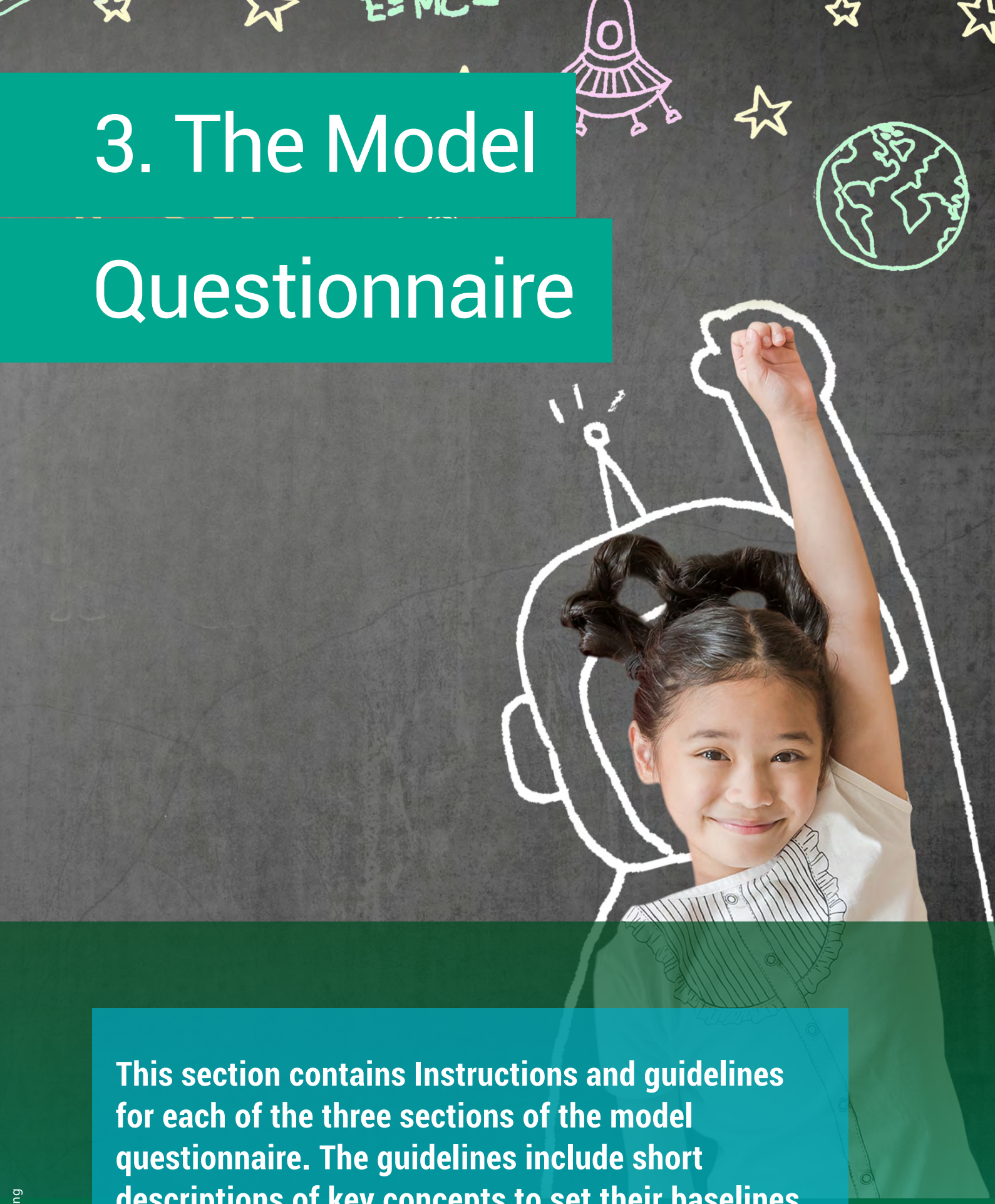
SAGA STI Gender Objectives List

Since for some questions respondents are asked to relate policies and instruments to gender objectives of the STI Gender Objectives List (see the Annex), a list of the objectives should be provided along with the survey for the respondents' convenience.

Glossary

The inclusion of a glossary with key terms used in the questionnaire, such as "gender equality" and other terms related to the topic, is highly recommended. Please refer to Chapter 2 of the SAGA Toolkit *http://unesdoc.unesco.org/images/0025/002597/259766e.pdf* for these definitions.

3. The Model Questionnaire



This section contains Instructions and guidelines for each of the three sections of the model questionnaire. The guidelines include short descriptions of key concepts to set their baselines and to state the objective of the questions.

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The model questionnaire

Instructions and guidelines are provided for each of the three sections of the model questionnaire. The guidelines include short descriptions of key concepts to set their baselines and to state the objective of the questions.

Some guidelines on how to complete the survey should be given to respondents along with the short survey introduction. These guidelines can be the same as the ones in this working paper, or they can be adapted to reflect better any changes users have made to the questions.

To complete the survey, all policies and relevant documents should be identified and individually reviewed by answering each question. A detailed inventory of the policies, instruments and activities will then be produced and analysed to evaluate the magnitude of the incorporation of gender equality in the STI policy mix at the national, subnational and institutional levels.

3.1 General information

This section collects general information about the institution surveyed and the two contact persons responsible for completing the survey.

The official name and website of the institution to which the survey is sent should be collected as basic information. In addition, the name, title, position and the name of the organization to which the contact person is affiliated (if different from the survey institution) should also be asked for future references. It may be useful to collect the information of a second contact person in the ministry or institution for future references.

Q.1.1 (*) Date of survey completion (*):
Year / month:
Q.1.2 INSTITUTION (*)
Name:
Website:
Q.1.3 CONTACT 1: Person responsible for completing the survey(*)
Name:
Title:
Gender: ❑ Male ❑ Female ❑ Others ❑ Not responding
Position:
Institution (if different from above):
Email address:
Phone number:
Q.1.4 CONTACT 2: Head of the organization or institution
Name:
Title:
Gender: ❑ Male ❑ Female ❑ Others ❑ Not responding
Position:
Institution:
Email address:
Phone number:

3.2 Policies, legal and institutional framework

This section collects information on how gender equality is incorporated in:

- STI national plans, policies and *ad hoc* policy documents;
- STI legal frameworks;
- institutional frameworks;

at national, subnational, or institutional levels.

Please note that when implementing the survey at the institutional level, the questions should be adapted. For instance, when asking *"if the national STI policy or national STI plan incorporates gender equality"*, the question should reformulated to *"if the institutional policy incorporates gender equality"*, etc.

STI national plans, policies and gender in STI policy documents

STI policies are statements related to STI made by a high-level governmental entity. The term is used in this questionnaire to describe policies that aim at improving the contribution of STI processes and activities ranging from the traditional public research and development policy focus to public policies that support innovation. They can include sets of decisions and executive arrangements to implement activities (national development plan or strategy), legislation, and decisions on the allocation of resources (Sagasti, 2011).

The **national STI plans or policies** usually provide a comprehensive framework of STI priorities, and are often the maximum expression of the country's strategic vision in the field, as they serve as a guide for the actions by the government. Some countries and institutions might have enacted **policy documents** focused on **gender equality in STI**. For complete coverage of policies, these documents should also be reviewed and analysed. The analysis of plans and policy documents will help identify if gender equality is mainstreamed in broader government policy and in national development objectives.

What are respondents asked?

QUESTION Q2.1

When a national STI policy or national STI plan exists (or both if they exist), respondents are asked to give basic information on it and to continue to questions 2.1.a, 2.1.b and 2.1.c. Information on previous national STI policies or national STI plans in STI but that are no longer in place, could also be reported. If there is no national STI policy or plan, or if it is currently under development, respondents should skip the question.

Question 2.1.a

Respondents are asked to provide more detailed information on the policy or plan such as: official title, year it was adopted, the period of validity (some policies and national plans might only be in place just for a given period) and a reference link to the webpage where the official document can be downloaded (if possible).

Question 2.1.b

Respondents are asked how gender equality is incorporated in the policy or plan. This question uses a scale to measure the level of the incorporation of gender equality for a better understanding of the level of mainstreaming. For example, plans may have a full chapter dedicated to gender equality in STI, or just a brief mention, or no mention at all. Respondents are asked to provide an excerpt of the text as well.
E.g.: The national STI policy, although it does not have a specific chapter or section dedicated to gender, has several paragraphs throughout its programmes that make explicit reference to gender equality.

Question 2.1.c

Respondents are asked if the policy or plan is linked to the SAGA gender objectives and if so, to which. It may be useful to provide the list of gender objectives to respondents – refer to the Annex for the list.

QUESTION Q2.2

When an **STI policy document specifically focused on gender equality** exists, respondents are asked to give more information by answering questions 2.2.a, 2.2.b and 2.2.c. Information on previous policy document addressing gender equality in STI but that are no longer in place, could also be reported. If there is no gender in STI policy, or it is currently under development, respondents should skip the question.

Question 2.2.a

Respondents are asked to provide more detailed information on the gender in STI policy document such as: official title, year when it was adopted, period of effectiveness (some policies and national plans might only be in place just for a certain period), period of implementation, and a reference link to the webpage where the official document can be downloaded (if possible).

Question 2.2.b

Respondents are asked if the gender in STI policy document is linked to the SAGA gender objectives and if so, to which it relates using SAGA STI GOL. It may be useful to provide the list of gender objectives to respondents– refer to the Annex for the list.

INSTRUCTION: Please complete question Q2.1 (including questions 2.1.a, 2.1.b, and 2.1.c) for each national STI policy and national STI plan, if extant.

Q2.1 (*)	**Does the national STI policy or national STI plan exist?**	
a. Yes	❑	Go to question 2.1.a
b. Yes, a previous policy or plan existed but is no longer in effect	❑	
c. No, but one is currently in development	❑	Skip questions 2.1.a, 2.1.b, and 2.1.c
d. No	❑	

2.1.a If the national STI policy or national STI plan exists, please provide:

a. Official name of the document:

b. Year of promulgation:

c. Period of validity:

d. Link to the document (or provide a copy):

2.1.b How does the national STI policy or national STI plan incorporate gender equality?

Please place a check mark (√) in the appropriate box.

a. Full chapter(s)	❑
b. Full section(s)	❑
c. Paragraphs throughout the document	❑
d. Brief mention	❑
e. No mention at all	❑

Please provide excerpt(s) from the document which highlight gender equality and substantiate your selection.

2.1.c Check all the STI gender sub-objective(s) to which the national STI policy or national STI plan contributes (refer to the SAGA STI GOL for more information on the gender objectives):

Please mark all sub-objectives to which it contributes with a check mark (√).

1	2	3	4	5	6	7
1.1 ❑	*2.1* ❑	*3.1* ❑	*4.1* ❑	*5.1* ❑	*6.1* ❑	*7.1* ❑
1.2 ❑	*2.2* ❑	*3.2* ❑	*4.2* ❑	*5.2* ❑	*6.2* ❑	*7.2* ❑
1.3 ❑	*2.3* ❑	*3.3* ❑	*4.3* ❑	*5.3* ❑		*7.3* ❑
	2.4 ❑	*3.4* ❑	*4.4* ❑	*5.4* ❑		*7.4* ❑
	2.5 ❑	*3.5* ❑	*4.5* ❑			*7.5* ❑
		3.6 ❑	*4.6* ❑			*7.6* ❑
			4.7 ❑			*7.7* ❑
			4.8 ❑			*7.8* ❑
						7.9 ❑

INSTRUCTION: Please complete question Q.2.2 (including questions 2.2.a, 2.2.b, and 2.2.c) separately for each **policy** *document directed mainly towards gender equality in STI.*

Q2.2 (*)	**Does a document directed mainly towards gender equality in STI exist?**	
a.	Yes, a gender in STI policy document currently exists ❑	Go to question 2.2.a
b.	Yes, a gender in STI policy document existed but is no longer in effect ❑	
c.	No, but a gender in STI policy document is currently in development ❑	Skip questions 2.2.a, 2.2.b, and 2.2.c
d.	No ❑	

2.2.a	**If yes, please provide:**
a.	Official name of the document:
b.	Year of effect:
c.	Period of implementation (for specific policy no longer in place):
d.	Link to the document (or provide a copy):

2.2.b Check all the STI gender sub-objective(s) to which the *ad hoc* policy document contributes (refer to the SAGA STI GOL for more information on the gender objectives).

Please mark all that apply with a check mark (√).

1	2	3	4	5	6	7
1.1 ❑	*2.1* ❑	*3.1* ❑	*4.1* ❑	*5.1* ❑	*6.1* ❑	*7.1* ❑
1.2 ❑	*2.2* ❑	*3.2* ❑	*4.2* ❑	*5.2* ❑	*6.2* ❑	*7.2* ❑
1.3 ❑	*2.3* ❑	*3.3* ❑	*4.3* ❑	*5.3* ❑		*7.3* ❑
	2.4 ❑	*3.4* ❑	*4.4* ❑	*5.4* ❑		*7.4* ❑
	2.5 ❑	*3.5* ❑	*4.5* ❑			*7.5* ❑
		3.6 ❑	*4.6* ❑			*7.6* ❑
			4.7 ❑			*7.7* ❑
			4.8 ❑			*7.8* ❑
						7.9 ❑

STI legal framework

A legal framework is a set of legal instruments or devices. Some countries have a specific national law focused on coordinating, regulating, and assigning priority to the development of STI (for instance the STI law or an act creating the authority in charge of STI). A legal device goes beyond a policy by stipulating obligations, rights, rewards and penalties connected with its obedience.

The legal framework may also include:

- national regulations and policies related to STI;
- decrees; and
- international treaties and agreements that regulate the operation of STI activities.

What are respondents asked?

QUESTION Q2.3

When a **legal instrument** in STI exists, respondents are asked to give more information by answering questions 2.3.a, 2.3.b and 2.3.c. Information on previous legal instruments but that are no longer in place, could also be reported. If there is no legal instrument, or it is currently under development, respondents should skip the question.

Question 2.3.a

Respondents are asked to provide more detailed information, for each of the identified legal instrument, such as: official title, year it was promulgated, period of validity (for legal instruments no longer in place) and a reference link to the webpage where the law can be downloaded (if possible).

Question 2.3.b

Respondents are asked how gender equality is incorporated in the legal instrument. This question uses a scale to measure the level of the incorporation of gender equality for a better understanding of the level of mainstreaming. For example, plans may have a full chapter dedicated to gender equality in STI, or just a brief mention, or no mention at all. Respondents are asked to provide an excerpt of the text as well.
E.g.: The national STI policy, although it does not have a specific chapter or section dedicated to gender, has several paragraphs throughout the document that make explicit reference to gender equality.

Question 2.3.c

Respondents are asked if the legal instrument is linked to the SAGA gender objectives and if so, to which it relates using the SAGA STI GOL. It may be useful to provide the list of objectives to respondents – refer to Annex for the list.

INSTRUCTIONS: Please complete question Q2.3 (including 2.3.a and 2.3.b) for each STI legal instrument identified.

Q2.3 (*)	**Does a STI legal instrument exist?**	
a.	Yes ❑	Go to question 2.3.a
b.	Yes, a previous STI legal instrument existed, but it is no longer in effect. ❑	
c.	No, but one is currently in development ❑	Skip questions 2.3.a, 2.3.b, and 2.3.c
d.	No ❑	

2.3.a If a STI legal instrument exists, please provide:

a. Official name of this document:

b. Year of promulgation:

c. Period of implementation (for legal instrument no longer in place):

d. Link to the document (or provide a copy):

2.3.b How does the STI legal instrument address gender equality in STI?

Please place a check mark (√) in the appropriate box.

a.	Specific legal instrument for gender equality in STI	❑
b.	Full chapters in general STI legal framework	❑
c.	Full sections in general STI legal framework	❑
d.	Paragraphs throughout the document in general STI legal framework	❑
e.	Brief mention in general STI legal framework	❑
f.	No mention at all	❑

Please provide excerpt(s) from the document which highlight gender equality and substantiate your selection.

2.3.c Check all the STI gender sub-objective(s) to which the STI legal instrument contributes (refer to the SAGA STI GOL for more information on the gender objectives).

Please mark all that apply with a check mark (√).

1	2	3	4	5	6	7
1.1 ❑	2.1 ❑	3.1 ❑	4.1 ❑	5.1 ❑	6.1 ❑	7.1 ❑
1.2 ❑	2.2 ❑	3.2 ❑	4.2 ❑	5.2 ❑	6.2 ❑	7.2 ❑
1.3 ❑	2.3 ❑	3.3 ❑	4.3 ❑	5.3 ❑		7.3 ❑
	2.4 ❑	3.4 ❑	4.4 ❑	5.4 ❑		7.4 ❑
	2.5 ❑	3.5 ❑	4.5 ❑			7.5 ❑
		3.6 ❑	4.6 ❑			7.6 ❑
			4.7 ❑			7.7 ❑
			4.8 ❑			7.8 ❑
						7.9 ❑

Institutional framework

Gathering information on the institutional framework will give users an organisational structure of the institutions that are responsible for formulating, implementing, or funding STI policies, particularly related to gender equality. Information might be collected on the existence of a specific department focused on gender equality, which is a possible sign of the commitment of a country, or an institution, to reducing the gender imbalance in STEM.

What are respondents asked?

QUESTIONS Q2.4 and 2.4.a

Respondents are asked if the institution to which they are affiliated is responsible for formulating, implementing, or funding STI policies focused on gender equality. If so, they are asked to provide more information on the role and responsibilities of and, if possible, how much has been allocated to gender equality in STI (last available year).

QUESTIONS Q2.5 and 2.5.a

Respondents are asked if the institution to which they are affiliated has a department mandated with gender equality and to provide more information if so. In the event that a unit or department used to exist, detailed information could still be gathered, being careful to clearly state the years the unit or department existed.

QUESTION Q2.6

Respondents are asked to provide information on the collaboration between the institution they are affiliated with and the authority in charge of women's affairs, and, if so, to describe how they are collaborating.

QUESTION Q2.7

Respondents are asked to provide information on any planned changes in the STI policy, legal or institutional framework related to gender equality at the national or institutional levels in the near future, if any.

QUESTION Q2.8

Respondents are asked to identify other institutions that formulating, implementing or funding STI policies focused on gender equality.

Q2.4 (*)	Is the institution responsible for formulating, implementing, or funding gender-related STI policies?	
a. Yes	❑	Go to question 2.4a
b. No	❑	Go to question 2.8

2.4.a	If yes, please specify:
a.	Function and responsibilities:
b.	Year of effect:
c.	Amount of funds (last available year):

Q2.5 (*)	Does the institution have a department or a unit dedicated to gender equality in STI?	
Please place a check mark (√) in the appropriate box.		
a. Yes	❑	Go to question 2.5.a
b. Yes, an office, department, or unit existed but it no longer does	❑	
c. No, an office, department, or unit is currently in development	❑	Go to question 2.5.b
d. No, it never existed	❑	

2.5.a	If yes, please provide:
a.	Official name of the office, department or unit:
b.	Year of establishment:
c.	Goals and objectives:
d.	Function and responsibilities:

Q2.6	Does your institution cooperate with the ministry or government entity in charge of women's affairs?	
a. Yes	❑	
b. No	❑	Skip question 2.6.a

2.6.a	If yes, please describe how:

Q2.7	Will your institution carry out significant changes in the STI policy, legal or institutional framework related to gender equality in the near future?	
a. Yes	❑	Go to question 2.7.a
b. No	❑	Skip question 2.7.a

2.7.a	If yes, please provide more details regarding the main changes:

Q2.8 **Which institutions are responsible in your country for formulating, implementing or funding STI policies focused on gender equality?**

List them:

Subnational level

Some countries might have one subnational level of government structure, others may be two-tiered (municipal and regional or have federated state levels), and others may have an even more complex system with additional levels or sub-categories within the same layer. Gender equality in STI policies and plans at the subnational level should be surveyed if the government structure is multilevel or has a federal governance. This is especially important if decentralised entities have responsibilities and some autonomy with respect to budget, staff and assets.

What are respondents asked?

QUESTIONS Q2.9 AND 2.9.A

Respondents are asked to provide information for each identified subnational STI policies or plan that addresses gender equality, including the state (or province or department) that is implementing the policy, the title, the year of effect, and a link or a copy of the document. Information on subnational STI policies or plans that were addressing gender equality in STI but that are no longer in place, could also be reported. If there is no subnational STI policy or plan, or it is currently under development, respondents should skip the question.

Question 2.9.b

Respondents are asked how gender equality is incorporated in the subnational STI policy or plan. For instance, there may be a brief mention or a full chapter dedicated to gender equality. Respondents are asked to provide an excerpt of the text as well.

Question 2.9.c

Respondents are asked if the policy or plan is linked to the SAGA gender objectives and if so, to which it relates using the SAGA STI GOL. It may be useful to provide the list of gender objectives to respondents– refer to Annex for the list.

Questions Q2.10 and 2.10.a

Respondents are asked to provide information on each subnational STI legal instrument (at the state, provincial and departmental levels) that addresses gender equality, including the title of the document, the year of effect, and a link or a copy of the document. Information on previous STI legal instruments that did address gender equality in STI but that are no longer in place, could also be reported. If there is no legal instrument, or it is currently under development, respondents should skip the question.

Question 2.10.b

Respondents are asked how gender equality is incorporated in the subnational STI legal instrument. For instance, there may be a brief mention or a full chapter dedicated to gender equality. Respondents are asked to provide an excerpt of the text as well.

Question 2.10.c

Respondents are asked if the policy instrument is linked to the SAGA gender objectives and if so, to which it relates using the SAGA STI GOL. It may be useful to provide the list of gender objectives to respondents– refer to the Annex for the list.

INSTRUCTION: Please complete Q2.9 (including questions 2.9a. 2.9.b and 2.9c) for each identified STI policy or plan at subnational level (province, department, or other level) addressing gender equality in STI.

Q2.9	**Do subnational STI policies or plans (state, provincial, departmental) exist?**	
a. Yes	❑	Go to question 2.9a
b. Yes, a previous document existed but it is no longer in effect	❑	
c. No, but a document is currently in development	❑	Skip questions 2.9.a, 2.9b, 2.9.c
d. No	❑	

2.9.a	**If subnational STI policies or plan (state, provincial, departmental) exist, please provide the following information:**
a. State, province or department:	
b. Official name of the document:	
c. Year:	
d. Link to the document (or provide a copy)	

2.9.b	**How does this subnational STI policy or plan incorporate gender equality objectives?**	
Please place a check mark (√) in the appropriate box.		
a. Full chapter(s)		❑
b. Full section(s)		❑
c. Paragraphs throughout the document		❑
d. Brief mention		❑
e. No mention		❑

Please provide excerpt(s) from the document which highlight gender equality and substantiate your selection.

2.9.c	Check all the STI gender sub-objective(s) to which the subnational STI policies or plan contributes (refer to the SAGA STI GOL for more information on the gender objectives):

Please mark all that apply with a check mark (√).

1	2	3	4	5	6	7
1.1 ❑	2.1 ❑	3.1 ❑	4.1 ❑	5.1 ❑	6.1 ❑	7.1 ❑
1.2 ❑	2.2 ❑	3.2 ❑	4.2 ❑	5.2 ❑	6.2 ❑	7.2 ❑
1.3 ❑	2.3 ❑	3.3 ❑	4.3 ❑	5.3 ❑		7.3 ❑
	2.4 ❑	3.4 ❑	4.4 ❑	5.4 ❑		7.4 ❑
	2.5 ❑	3.5 ❑	4.5 ❑			7.5 ❑
		3.6 ❑	4.6 ❑			7.6 ❑
			4.7 ❑			7.7 ❑
			4.8 ❑			7.8 ❑
						7.9 ❑

INSTRUCTION: Please complete question Q2.10 (including questions 2.10a, 2.10b, and 2.1.c) for each subnational entity (state, province, or other) with a STI legal instrument addressing gender equality.

Q2.10	Does a subnational STI legal instrument (state, provincial, departmental) exists?	
a.	Yes, a subnational STI legal instrument exists ❑	Go to question 2.10.a
b.	Yes, a previous subnational STI legal instrument existed but it is no longer in effect ❑	
c.	No, but a subnational legal instrument is in development ❑	Skip questions 2.10.a, 2.10.b, and 2.10.c
d.	No ❑	

2.10a	If a subnational STI legal instrument (state, provincial, departmental) exists, please provide the following information:
a.	State, province, department:
b.	Official name of the STI law:
c.	Year:
d.	Link to the document (or provide a copy):

2.10.b	How does this subnational STI legal instrument incorporate gender equality objectives?	
Please place a check mark (√) in the appropriate box.		
a.	Full chapter(s)	❑
b.	Full section(s)	❑
c.	Paragraphs throughout the document	❑
d.	Brief mention	❑
e.	No mention	❑

Please provide excerpt(s) from the document which highlight gender equality and substantiate your selection.

2.10.c Check all the STI gender sub-objective(s) to which the subnational STI legal instrument contributes (refer to the SAGA STI GOL for more information on the gender objectives):

Please mark all that apply with a check mark (√).

1	2	3	4	5	6	7
1.1 ❑	2.1 ❑	3.1 ❑	4.1 ❑	5.1 ❑	6.1 ❑	7.1 ❑
1.2 ❑	2.2 ❑	3.2 ❑	4.2 ❑	5.2 ❑	6.2 ❑	7.2 ❑
1.3 ❑	2.3 ❑	3.3 ❑	4.3 ❑	5.3 ❑		7.3 ❑
	2.4 ❑	3.4 ❑	4.4 ❑	5.4 ❑		7.4 ❑
	2.5 ❑	3.5 ❑	4.5 ❑			7.5 ❑
		3.6 ❑	4.6 ❑			7.6 ❑
			4.7 ❑			7.7 ❑
			4.8 ❑			7.8 ❑
						7.9 ❑

3.3 Operational policy instruments, activities and measures

Section 3 of the model questionnaire has two sub-sections, directed to different types of respondents, one collecting information on operational policy instruments implemented by ministries and high authorities (Sub-section 3A) and another one collecting information on the measures and activities implemented by research institutions and universities (Sub-section 3B).

Sub-section 3A: Operational policy instruments of ministries and high authorities

This section focuses on mapping operational policy instruments and measures that have been established to achieve gender equality in STI by ministries and high authorities.

STI operational policy instruments are specific ways and means used to implement STI policies. They respond to the question of how a particular policy is implemented. They are the levers, or actual means, by which the organizational structure ultimately implements decisions on a day-to-day basis and attempts to produce the desired effect on the variables the policy has set out to influence. Throughout the analysis of an instrument, it is important to keep in mind the actors or key decision-makers who are directly involved in the design and who use the operational policy instrument.

The definition used in the model questionnaire for STI operational policy instrument is deliberately wide: for instance, an operational policy instrument can be an award, a competition, or a financial policy measure (e.g. a loan, a fiscal incentive, etc.). An STI operational policy instrument can also be a scholarship extension during parental leave (including maternity, paternity and adoption leave) or activities to raise awareness of the importance of having more women hold leading positions at research organizations.

It is possible that not all the instruments are directly aimed at achieving gender equality in STI; while some may not have a direct impact but a differential impact on gender equality.

- Direct impact is used for instruments aimed explicitly at achieving gender equality in STI. These instruments, regulations, policies and programmes

are established specifically to have a direct gender impact, affecting the working conditions and access to resources for women and men.

- Differential gender impact is used when instruments are aimed at other objectives but do have a positive impact on gender equality.

For example, a competition to fund actions focused on promoting women in STI is an instrument with a direct impact. A national award for innovation focused on promoting the culture of innovation, which has a component ensuring visibility of women entrepreneurs as role models is an example of an instrument with differential gender impact.

What are respondents asked?

Sub-section 3A is to be filled once for each instrument identified.

Question Q3A.1

Respondents are asked to provide general information for the instrument such as name, year established, expected end year, annual budget allocated, a description and the instrument's main goals, and a reference link to the webpage where the official document can be downloaded (if available).

Question Q3A.2

Operational policy instruments might have one or several specific objectives, which correspond to standard categories adopted by SAGA and elaborated in the framework of the UNESCO GO-SPIN methodological approach. In Q.3A.2, respondents are asked to identify which specific objectives are addressed by the instrument. Every instrument should address the specific objective "Strengthening gender equality for research and innovation"; nonetheless, some instruments might also address other specific objectives. This is particularly important in the case of instruments with a differential gender impact.

Question Q3A.3

Operational policy instruments are implemented through different types of mechanism (sometimes through more than one). Respondents are asked to identify the ones that are used to operationalize each of the instruments surveyed.

Question Q3A.4

Respondents are asked to identify all the beneficiaries targeted by the instruments. For example, some operational instruments may be focused exclusively on women and other may target women and other beneficiaries such as students, universities or in particular women students.

Table 1 shows examples of different types of operational instruments associated with strategic objectives, type of mechanisms and beneficiaries to assist respondents in answering questions Q3A.2, Q3A.3 and Q3A.4.

Table 1: Example of STI operational policy instruments

Programmes and objectives	Strategic objectives	Mechanism	Beneficiaries
Promotion of gender equality in research and innovation	Strengthening gender equality for research and innovation	Scholarships	Young women enrolled in Ph.D. programmes in basic and engineering sciences
Call for proposals for Innovation Projects with a focus on gender equality	– Strengthening the production of new endogenous scientific knowledge – Human resources for research, innovation and strategic planning – Strengthening gender equality for research and innovation	Awards and competitions	– Individual researchers or professionals, Ph.D. holders – Technical and support staff in STI – Women

INSTRUCTIONS: Please complete all the questions for **each operational policy instrument** *addressing gender equality in STI.*

Q3A.1 (*) Please provide a description of the instrument:

a. Name of the instrument:

b. Year established:

c. Expected end year:

d. Annual budget allocated (last available year):

e. Short description of the instrument:

f. Main goal(s):

g. Website:

Q3A.2 (*) Select the corresponding items to describe the specific objectives addressed by the operational policy instrument:

Please mark all that apply with a check mark (√).

a. Strengthening the production of new scientific knowledge	❑
b. Strengthening the infrastructure of research laboratories in the public and private sectors	❑
c. Human resources for research, innovation and strategic planning	❑
d. Strengthening gender equality for research and innovation	❑
e. Strengthening the social appropriation of scientific knowledge and new technologies	❑
f. Development of strategic technological areas and new niche products and services with high added value. Promotion and development of innovation in the production of goods and services. Promotion of start-ups in areas of high technology	❑
g. Strengthening science education programmes at all levels (from primary school to postgraduate)	❑
h. Promotion or mainstreaming of the development of green technologies and social-inclusion technologies	❑
i. Promotion of indigenous knowledge systems	❑
j. Research and innovation ecosystem: strengthening co-ordination, networking and integration processes which promote synergies among the different actors of the national scientific, technological and productive innovation system	❑
k. Strengthening the quality of technology foresight studies to assess the potential of high-value markets, develop business plans for high-tech companies, construct and analyse long-term scenarios and provide consulting services and strategic intelligence	❑
l. Strengthening regional and international co-operation, networking and promotion of STI activities	❑
m. Awards in science, technology and innovation	❑
n. Other, specify:	❑

Q3A.3 (*) Which of the following type(s) of mechanism is used to operationalize the instrument?

Please mark all that apply with a check mark (√).

a. Technical assistance	❑
b. Scholarships or fellowships	❑
c. Training	❑

d. Awards or competitions	❑
e. Creation of, and support for, technological poles and centres of excellence	❑
f. Donations (individuals or companies)	❑
g. Fairs	❑
h. Trust funds	❑
i. Financial guarantee	❑
j. Credit incentives and venture capital	❑
k. Tax incentives	❑
l. Loans	❑
m. Information services	❑
n. Subsidies (non-reimbursable contributions)	❑
o. Other, specify:	❑

Q3A.4 (*) Identify all the beneficiaries or groups targeted by the instrument.

Please mark all that apply with a check mark (√).

a. Institutes and other research centres (public or private)	❑
b. Universities, colleges, tertiary education institutions (public or private)	❑
c. Secondary and primary schools (public or private)	❑
d. Technical training centres (public or private)	❑
e. STI public or private non-profit organizations	❑
f. Business/enterprises (public or private) at different categories (corporations, SMEs, etc.)	❑
g. Co-operatives	❑
h. Foundations (public or private)	❑
i. R&D non-profit organizations (public or private)	❑
j. Local R&D groups (e.g. a group of independent researchers)	❑
k. Ad hoc associations	❑
l. Technical and support staff in STI	❑
m. Students	❑
n. Teachers	❑
o. Women (exclusively)	❑
p. Indigenous peoples and local communities	❑
q. Disabled people	❑
r. Minorities	❑
s. Individual researchers or professionals, Ph.D. holders	❑
t. Others, specify:	❑

What are respondents asked?

QUESTIONS Q3A.5, Q3A.6, Q3A.7, Q3A.8 AND Q3A.9

Question QA3.5

For each operational policy instrument, respondents are asked to identify to which gender objectives and sub-objectives it contributes through a direct or differential impact using the SAGA STI GOL. It may be useful to provide the list of gender objectives to respondents– refer to the Annex for the list.

The conceptual explanation, also provided at the beginning of this section, should always be included in order to help responding adequately to the question.

"It is possible that not all the instruments are directly aimed at achieving gender equality in STI; some may have a direct impact or a differential gender impact.

- *Direct impact is used for instruments aimed at achieving gender equality in STI. These instruments, regulations, policies and programmes, are established specifically to have a direct gender impact, affecting the working conditions and access to resources for women and men.*
- *Differential gender impact is used when instruments are aimed at other objectives but do have an impact on gender equality.*

For example, a competition to fund actions focused on promoting women in STI is an instrument with a direct impact. A national award for innovation focused on promoting the culture of innovation, which has a component in ensuring visibility of women entrepreneurs as role models, is an example of an instrument with differential gender impact."

Question QA3.6

Respondents are asked to identify the sources of funding used to operationalize the instrument using the categories identified in the *Frascati Manual* (OECD, 2015): business enterprise, government, higher education, private non-profit, and the rest of the world.

Question Q3A.7

Respondents are asked to identify the geographical coverage of the instrument. For example, an instrument may be implemented at different levels: locally (in a specific community), subnationally (department(s), region(s), or province(s)), nationally (covering the entire country) or regionally (covering more than one country).

QUESTIONS QA3.8 AND QA3.9

Other information regarding the results and outcomes and the impact, measured through associated indicators, might also provide useful information on the instrument and are collected through Q 3.8 and Q3.9.

Q3A.5 (*) Please select the STI gender objectives to which the instrument contributes. Specify if the instrument has a direct impact with'D' or a differential impact with 'I'. (Refer to the SAGA STI GOL in Annex).

Please mark all that apply with a D or I.

1	2	3	4	5	6	7
1.1 ❑	2.1 ❑	3.1 ❑	4.1 ❑	5.1 ❑	6.1 ❑	7.1 ❑
1.2 ❑	2.2 ❑	3.2 ❑	4.2 ❑	5.2 ❑	6.2 ❑	7.2 ❑
1.3 ❑	2.3 ❑	3.3 ❑	4.3 ❑	5.3 ❑		7.3 ❑
	2.4 ❑	3.4 ❑	4.4 ❑	5.4 ❑		7.4 ❑
	2.5 ❑	3.5 ❑	4.5 ❑			7.5 ❑
		3.6 ❑	4.6 ❑			7.6 ❑
			4.7 ❑			7.7 ❑
			4.8 ❑			7.8 ❑
						7.9 ❑

Q3A.6 (*) Identify the source of funding for the instrument:

a. Government sector ❑

b. Business enterprise (public or private) sector ❑

c. Higher education sector ❑

d. Private non-profit sector ❑

e. Rest of the world ❑

Q3A.7 (*) Identify the geographical coverage for the instrument:

a. Local ❑

b. Subnational ❑

c. National ❑

d. Regional (supra-national) ❑

Q3A.8 Include the results and outcomes of the instrument (if available).

Q3.A9 Include indicators and targets associated with this instrument if they have been developed.

Sub-section 3B: For research institutions and universities: activities and measures

This sub-section focuses on collecting activities and measures to achieve gender equality in STI that have been put in place by research institutions and universities.

What are respondents asked?

For each activity or measure addressing gender equality in STI respondents need to provide information on different analytic dimensions. Sub-section 3B is to be filled once for each activity or measure identified.

QUESTION Q3B.1

Respondents are asked to provide general information on the activity and measure addressing gender equality in STI such as name, year established, expected end year, annual budget allocated, a description and the instrument's main goals, and a reference link to the webpage where the official document can be downloaded (if available).

Question Q3B.2

Activities are implemented through a type of mechanism (sometimes through more than one) such as scholarships, training etc. Respondents should identify the mechanisms that are used to operationalize it.

Question Q3B.3

Respondents are asked to identify all the beneficiaries targeted by the activity or measure surveyed. For example, some activities or measures may be focused exclusively on women students and other may target women and other beneficiaries such as indigenous people, researchers etc.

Question Q3B.4

Respondents are asked if the activity is linked to the SAGA gender objectives and if so, to which it relates. It may be useful to provide the list of gender objectives to respondents– refer to the Annex for the list.

Questions QB3.5 and QB3.6

Other information regarding the results and outcomes and the impact, measured through associated indicators, might also provide useful information on the activity or measure and are collected through Q3.5 and Q3.6.

INSTRUCTIONS: Please complete question Q3.1, Q3.2, Q3.3, Q3.4, Q3.5 and Q3.6 for each activity and measure addressing gender equality in STI identified.

Q3B.1 (*) Please provide a description of the activity or measure:

Name of the instrument:

Year established:

Expected end year:

Annual budget allocated (last available year, in US$):

Short description of the instrument

Main goal(s):

Website:

Q3B.2 (*) Which of the following type(s) of mechanism is used to operationalize the activity or measure?

Please mark all that apply with a check mark (√).

Technical assistance	❑
Scholarships or fellowships	❑
Training	❑
Awards and competitions	❑
Fairs	❑
Loans	❑
Information services	❑
Subsidies (non-reimbursable contributions)	❑
Other, specify:	❑

Q3B.3 (*) Identify all the beneficiaries or groups targeted by the instrument.

Please mark all that apply with a check mark (√).

Local R&D groups (e.g. a group of independent researchers)	❑
Ad hoc associations	❑
Technical and support staff in STI	❑
Students	❑
Teachers	❑

Women (exclusively)	❑
Indigenous peoples and local communities	❑
Disabled people	❑
Minorities	❑
Individual researchers or professionals, Ph.D. holders	❑
Others, specify:	❑

Q3B.4 (*) Please select the STI gender objectives to which the activity or measure contributes. Specify if it has a direct impact with 'D' or a differential impact with 'I'. (Refer to the SAGA STI GOL in Annex).

Please mark all that apply with a D or I.

1	2	3	4	5	6	7
1.1 ❑	*2.1* ❑	*3.1* ❑	*4.1* ❑	*5.1* ❑	*6.1* ❑	*7.1* ❑
1.2 ❑	*2.2* ❑	*3.2* ❑	*4.2* ❑	*5.2* ❑	*6.2* ❑	*7.2* ❑
1.3 ❑	*2.3* ❑	*3.3* ❑	*4.3* ❑	*5.3* ❑		*7.3* ❑
	2.4 ❑	*3.4* ❑	*4.4* ❑	*5.4* ❑		*7.4* ❑
	2.5 ❑	*3.5* ❑	*4.5* ❑			*7.5* ❑
		3.6 ❑	*4.6* ❑			*7.6* ❑
			4.7 ❑			*7.7* ❑
			4.8 ❑			*7.8* ❑
						7.9 ❑

Q3B.5 Include the results and outcomes of the activity or measure (if available).

Q3.B6 Include indicators and targets associated with this activity or measure in case have been developed.

4. References

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5. Annex

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Annex : STI Gender Objectives List

1. Change perceptions, attitudes, behaviours, **social norms and stereotypes** towards women in STEM in society
   - 1.1. Promote awareness of and overcome non conscious and cultural gender biases widely expressed as gender stereotypes, among scientists, educators, policy-makers, research organizations, the media, and the public at large.
   - 1.2. Promote visibility of women with STEM qualifications, and in STEM careers, especially in leadership positions in governments, business enterprises, universities, and research organizations.
   - 1.3. Mainstream gender perspectives in science communication and informal and non-formal STEM education activities, including in science centres and museums.
2. Engage girls and young women in STEM **primary and secondary education**, as well as in technical and vocational education and training
   - 2.1. Promote S&E vocations to girls and young women, including by stimulating interest, fostering in-depth knowledge about S&E career issues, and presenting role models.
   - 2.2. Mainstream the gender perspective in educational content (teacher training, curricula, pedagogical methods, and teaching material).
   - 2.3. Promote gender-sensitive pedagogical approaches to STEM teaching, including encouraging hands-on training and experiments.
   - 2.4. Promote gender balance among STEM teachers.
   - 2.5. Promote gender equality in STEM school-to-work transitions.
3. Attraction, access to and retention of women in STEM **higher education** at all levels
   - 3.1. Promote access of and attract women to STEM higher education (including Masters and Ph.D.), including through specific scholarships and awards.
   - 3.2. Prevent gender bias in the student admission and financial aid process.
   - 3.3. Promote retention of women in STEM higher education at all levels, including through gender-sensitive mentoring, workshops and networks.
   - 3.4. Prevent gender-based discrimination and sexual harassment at all levels, including Masters and Ph.D.
   - 3.5. Promote gender equality in international mobility of students.
   - 3.6. Promote day care/child care facilities for students, particularly at STEM higher education institutions.
4. Gender equality in **career progression** for scientists and engineers (S&E)
   - 4.1. Ensure gender equality in access to job opportunities, recruitment criteria and processes.
   - 4.2. Promote equal work conditions through, among others:
     - gender equality in remuneration;
     - preventing gender bias in performance evaluation criteria (including productivity measurement);
     - adequate safety and security of fieldwork;
     - sexual harassment prevention policies and procedures.
   - 4.3. Ensure gender equality in access to opportunities in the workplace:
     - training and conferences;
     - research teams, networks (national and international), expert panels and advisory groups;
     - publications and patent applications, including preventing bias in review;
     - financial and non-financial incentives;
     - recognition, rewards and awards.
   - 4.4. Promote work–life balance through, among others:
     - infrastructure for child care
     - flexible working hours
     - reduction and redistribution of unpaid care and domestic care
     - family leave for both parents

- appropriate re-entry mechanisms to the S&E workforce after career break or family leave.

4.5. Promote gender equality in international mobility of post-docs and researchers, and facilitate women's return.

4.6. Promote gender balance in leadership positions in S&E occupations (including decision-making and research).

4.7. Promote transformations of STI institutions and organizations (structure, governance, policies, norms and values) aimed at achieving gender equality.

4.8. Ensure gender equality in S&E professional certifications, in particular in engineering.

5. Promote the gender dimension in **research content, practice and agendas**

5.1. Establish specific gender-oriented R&D programmes, including research on gender in STEM and on the gender dimension of the country's research agenda and portfolio.

5.2. Incorporate gender dimensions into the evaluation criteria of R&D projects.

5.3. Promote gender-sensitive analysis in research hypotheses and consideration of sex of research subjects.

5.4. Promote gender responsive and gender-sensitive research dissemination and science communication, including through science centres and museums, science journalism, specific conferences, workshops, and publications.

6. Promote gender equality in STEM-related **policy-making**

6.1. Ensure gender balance in STEM-related policy design (decision-makers, consultative committees, expert groups, etc.):
- Education policy
- Higher education policy
- STI policy
- Economic policy
- Workforce policy
- SDGs / international policies.

6.2. Ensure gender mainstreaming and prioritization of gender equality in STEM related policy design, monitoring and evaluation:
- Education policy
- Higher education policy
- STI policy
- Economic policy
- Workforce policy
- SDGs / international policies.

7. Promote gender equality in science and technology-based **entrepreneurship and innovation activities**

7.1. Promote gender equality in access to seed capital, angel investors, venture capital, and similar start-up financing.

7.2. Ensure equal access to public support for innovation for women-owned firms.

7.3. Ensure visibility of women entrepreneurs as role models.

7.4. Ensure women's access to mentorship and participation in the design and implementation of gender-sensitive training in entrepreneurship, innovation management, and Intellectual Property Rights.

7.5. Promote networks of women entrepreneurs and women's participation in entrepreneurship networks.

7.6. Promote gendered innovation approaches.

7.7. Promote external incentives and recognition for women-led innovation and acceptance of women innovators in society.

7.8. Promote gender equality in the access and use of enabling technology, in particular information and communication technology.

7.9. Promote a gender balanced workforce and equal opportunities in start-up companies.

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THE SAGA SURVEY OF GENDER EQUALITY IN SCIENCE, TECHNOLOGY AND INNOVATION POLICIES

Working Paper 3

Improving gender equality in a country requires, as a first step, to assess the current status of men and women, and then to determine which interventions are likely to be the most useful to promote the desired change.

This working paper provides the guidelines to implement the SAGA Survey of Gender Equality in STI Policies and Instruments (SAGA STI Policy Survey), and presents a core model questionnaire with instructions on how to complete it.

The SAGA STI Policy Survey provides valuable information that can be used for the development of national STI policies or plans that can feed into the country's strategic, benchmarking and policy mapping initiatives.

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