

W-STEM International Leadership Summit  
Good practices: strategies and mechanisms  
First benchmarking round, Barranquilla, November 28<sup>th</sup>, 2019

### Completion instructions

**Note:** Please complete and send this questionnaire to the person in charge before November 3rd, 2019

All questions in this questionnaire are based on the Columbus methodology for benchmarking rounds. Before filling it please be sure to read these instructions. They will allow you to better understand the dynamic we aim to promote, the way the questionnaire will be used, and therefore, the nature of the answers we require.

To answer the questionnaire, please be sure you've explored all the initiatives/practices/activities with the person in charge of every subject before choosing those which have a bigger impact on your institution.

Before you proceed to answer please take into account that:

1. This benchmarking (BM) is looking for those cases that have the biggest potential for collaborative learning, not only the successful ones. *Projects at any stage (planning/execution/evaluation) as well as programs and services in creation, development or closing phases are equally interesting, as long as they offer an experience from which people can learn.*
2. This questionnaire will be taken as a reference in order to identify the practices that will be presented during the summit. Make sure to condense the most relevant information.
3. Before answering ask yourself: *could this information be utilized and be beneficial to other partner universities? Could this project/program/service improve or enrich itself with the experience of other partner universities?*
4. Take into account that the subject comprises **3 subthemes**. We invite you to choose those **valuable** experiences to share with your partners. By answering this questionnaire, have in mind that this **is not an evaluation of your institution**: we aim to share the achievements but also the problems and solutions, whether they are successful or not, that we have found. From mistakes, we can learn as much as from success.
5. The purpose of this benchmarking is to learn from the experience of other partner institutions. Therefore, please respond to the questions having in mind that the answers must describe **what was learned and what is appropriate** in your institution

when it comes to policies and strategies to promote the participation of women in STEM careers and their success in their professional lives. *Respond only to the subthemes in which you have developed projects/programs/services.*

6. When it comes to choosing a case, prefer those of *greater reach or coverage*, according to the subthemes instead of isolated services and experiences. Attach data that may serve as reference or record in order to know and understand (as appropriate) the processes of decision, planning, execution or evaluation of your projects. Focus on responding to questions such as: *how we decided to do it? How we did it/are doing it? How did we overcome or solve the critical points? How do we evaluate the results/achievements? What did we learn from what we did?* Give examples when needed.
7. Do not forget to answer the last question: *do you have other important aspects to add or specific examples to illustrate the practices that have had the best results?*

## Axes to address in the benchmarking

**1. The attraction of women to STEM programs** All the policies, strategies, mechanisms and activities that allow disseminating information about STEM disciplines, their application in social, environmental and sanitary problems, among others, as well as the promotion of the opportunities inside the HEI and for aspiring students of the HEI and also for elementary and high school students. For example joint work with externals (schools, organizations, etc.), articulation with key actors inside the STEM programs, sensibilization practices of science and tech with young girls, among others.

**2. Recruitment and access of women to STEM programs** All the policies, strategies, mechanisms and activities that allow to: improve the access of women to STEM programs, evaluate the necessary skills of aspiring students to assume the enrollment in a higher education STEM program, achieve an adequate academic performance of women in STEM programs so they can successfully conclude the career. For example: what kind of information is selected? Which variables and instruments are used in the student selection process? What type of tests are being applied? General or specialized tests? Are the secondary school's grades taken into account? How does your institution determine the required level of performance to be admitted? Additionally which support mechanisms such as scholarships or financial resources are prioritizing the access of girls and women in STEM programs.

**3. Retention and talent empowerment during STEM training: science and technology teaching** All the policies, strategies, mechanisms and activities oriented to empower the talent of women studying STEM programs so they can successfully develop during their university stage and will allow identifying strengths and weaknesses to take into account in processes such as induction, leveling, and curricular development. For example, learning and training programs oriented to achieve academic success, mentoring programs, entailment and participation in collaborative networks, mechanisms to achieve their entailment to teaching and investigation, among others.

## GENERAL INFORMATION

Partner	
Partner	
Leader of the BM team	
Contact e-mail	

### I. Description of the practices and the relation to the BM axes.

#### 1. Select the axes in which the good practice that your institution is carrying out is described.

Please consider those practices of higher added value and impact in your institution, according to the content description of each axis. We kindly ask you to focus on **one good practice**, although it is possible that some practices could have an impact on more than one axis at a time.

1. The attraction of women to STEM programs	
2. Recruitment and access of women to STEM programs	
3. Retention and talent empowerment during STEM training: science and technology teaching	

#### 2. Describe the good practice and how does it impact the axes you have selected in your institution.

#### 3. In which stage of development is the practice you mentioned above (project/program/service)?

<i>Select the stage with an X</i>	
Creation / design / planning	
Development / Application / Execution	
Tracking / Control / Evaluation	
Other:	

4. Which are the main results that you have achieved and how will this practice improve (or will improve) the participation of women in STEM programs?

Results (If you still have no results leave this space blank)

how will this practice improve (or will improve) the participation of women in STEM programs

5. In which STEM programs of your institution is the good practice mentioned above focused?

ISCED code	Field of study	
0511	Biology	
0512	Biochemistry	
0521	Environmental sciences	
0522	Natural environments and wildlife	
0531	Chemistry	
0532	Earth sciences	
0533	Physics	
0541	Mathematics	
0542	Statistics	
0611	Computer use	
0612	Database and network design and administration	
0613	Software and applications development and analysis	

0711	Chemical engineering and processes	
0712	Environmental protection technology	
0713	Electricity and energy	
0714	Electronics and automation	
0715	Mechanics and metal trades	
0716	Motor vehicles, ships and, aircraft	
0721	Food processing	
0722	Materials (glass, paper, plastic and, wood)	
0723	Textiles (clothes, footwear and, leather)	
0724	Mining and extraction	
0731	Architecture and town planning	
0732	Building and civil engineering	

## II. Institutional strategies and policies

6.1. Is this good practice an answer to an institutional strategy that aims to improve the participation of women in STEM programs?

Yes		No	
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6.2. If your last answer was yes, how is this Good practice aligned or contributes to this strategy?

*Attach to your answer e-mail a copy of the strategy and/or any document you consider relevant.*

7. Which were the main reasons you had to develop this practice/action/strategy in your institution? What was the situation to solve?

8. Which resources and support have the institution destined to develop the practice/action/strategy?

### III. Implementation and sustainability

9. Which measurement indicators are being used or will be used?

10.1. How were/are being/will be measured the indicators listed above?

10.2. Which systems or mechanisms are being used to monitor the achieved results?

10.3. Does the institution track the improvement of the participation of women in STEM programs in the selected axis(es)?

11. Which actions are being carried out to secure sustained achievements in the identified axis(es)? For example training, education, recruitment of specialized personnel, external counseling, process formalization.

12.1. Which factors (of success or failure) explain the obtained results?

*If you have no result as of yet, mention the factors you think will explain the results.*

12.2. Which was the hardest barrier to overcome? Mention it.

12.3. Which was the facilitator? Mention it.

13.1. How do you disseminate the results and achievements with the university community and external stakeholders?



13.2. Please attach, if you have any, the most recent results.



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DI TORINO



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COSTA RICA



UTPL

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Tecnológica  
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UNIVERSIDAD  
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T  
DUBLIN  
TECHNOLOGICAL  
UNIVERSITY DUBLIN

NORTHERN  
Regional College

Tecnológico  
de Monterrey



PONTIFICIA UNIVERSIDAD  
CATOLICA  
DE VALPARAISO



UNIVERSITY  
OF GULU  
UNIVERSIDAD TECNICA  
FEDERICO SANTA MARIA

TEC | Tecnológico  
de Costa Rica

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DE SALAMANCA

#### IV. Future improvements - Women in STEM programs.

14. Which are the main problems/uncertainties/barriers to overcome in the mid and long-term on your institution/program/dependence?

*Between the aspects that can be modified/solutioned in your institution, mention those that you consider determinant in the future relating to the participation of women in STEM programs.*

15. Which are the main priorities, projects/programs/mechanisms to develop, in the mid and long-term in your institution, program or dependence relating to the improvement of the participation of women in STEM programs?

16. Do you have other important aspects to add or specific examples to illustrate the practices that have had the best results?