Catalogue of Tools

Best Practices for Attracting and Retaining STEM Students in Higher Education

ELA4ATTRACT
EMPOWER LA HE FOR INCLUSION AND STEM ATTRACTION

Through **ELA4ATTRACT** we seek to foster, promote and implement best practices that enhance the ability to attract, recruit and retain domestic and international students seeking bachelor's and master's degrees in STEM areas, with a gender focus so that more women will consider a career in these fields.

This project seeks to promote equal opportunity and address historical and systemic barriers to access for underrepresented groups, such as women, low-income people, ethnic minorities and rural communities.

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Catalogue of Tools

The "Catalogue of Tools" is a compilation of best practices designed and implemented by universities participating in the ELA4ATTRACT project. This initiative brings together twelve universities from Europe, Latin America, and the Caribbean to inspire, attract, and retain students in STEM disciplines (Science, Technology, Engineering, and Mathematics). The catalogue is developed as a reference guide for higher education institutions worldwide, aiming to promote STEM vocations.

The practices included in the catalogue have been analysed based on self-reports submitted by each member university of the ELA4ATTRACT consortium. The selected initiatives exhibit some degree of differentiation from other efforts and introduce elements of innovation. These initiatives address key challenges in attracting and retaining students in STEM, with a special emphasis on under-represented groups and gender equality.

The initiatives are categorized into two main areas and sub-areas:

A. Attraction: Initiatives to inspire and motivate individuals to consider STEM disciplines a viable and enriching path for their academic and professional development. These initiatives seek to break stereotypes, foster interest in STEM, and promote inclusion, focusing on individuals at different stages of their educational journey.

- **A1. Awareness:** Activities aimed at the general community to create a culture that thinks about STEM careers and their potential impact. These initiatives highlight the importance of STEM fields in society and seek to make them more accessible and attractive to underrepresented groups.
- **A2. Exploration:** Opportunities that allow primary and secondary school students to engage with STEM concepts with a hands-on and fun approach. These activities offer interactive experiences that demystify STEM and foster curiosity.
- **A3. Immersion:** Programs that provide more in-depth experiences in STEM. These initiatives are designed to strengthen students' interest and confidence in pursuing STEM studies by exposing them to real-world applications, advanced concepts, and mentoring opportunities.
- **A4. Admission Access:** Initiatives that facilitate the admission and inclusion of underrepresented groups into formal STEM higher education programs. These are activities aimed at high school students interested in pursuing STEM careers. Participation in these programs and initiatives could be a determining factor in the allocation of spots in STEM fields at universities.

R. Retention: Initiatives that address the critical need to support university students throughout their academic journey, particularly those from underrepresented groups in STEM.

- **R1. Awareness:** Initiatives that educate the university community about the challenges faced by underrepresented groups in STEM fields. These activities aim to promote an inclusive culture where diversity is recognized as a strength.
- **R2. Skills Development:** Programs designed to enable university students with the academic, technical, and social skills necessary to thrive in STEM studies.
- **R3. Support:** Initiatives that provide emotional, psychological, and structural assistance to university students, ensuring they can focus on their studies and achieve their academic goals in a supportive environment.

The catalogue brings together 98 initiatives from the universities within the ELA4ATTRACT consortium. Of these, 82 belong to the Attraction category and 16 to the Retention category.

One of the key challenges for ELA4ATTRACT is attracting more women to STEM. To achieve this, STEM promotion initiatives must incorporate a gender perspective. This approach will transform the way STEM careers are presented, help dismantle stereotypes and gender biases associated with STEM fields, and ensure that girls feel included in these disciplines. In order to address this challenge, this catalogue includes a **Guide for Activity Facilitation** and a **Guide for Student Admission**. It is recommended to distribute these basic guides among academic and administrative staff, as well as among students participating in STEM promotion initiatives. However, universities must go beyond this and incorporate a gender perspective across all areas, including teaching, research, decision-making, communication, recruitment, and work-life balance.

The catalogue provides a general description of the selected initiatives. Each initiative is first categorized according to the concepts included in the **Glossary**, followed by a brief description. For more information on its implementation, it is recommended to consult the corresponding contact at the ELA4ATTRACT consortium university, as listed in the **Contacts** section.

Glossary

Each initiative in this catalogue has been categorized using specific labels that, in some cases, due to the diversity of cultures involved in its development, require a specific definition.

Effort: A qualitative indicator of the economic and/or personnel cost that the design and implementation of an initiative represent for the university. It is classified as *low*, *medium*, or *high*, according to the criteria of the originating institution.

Target audience: An indicator of the educational level of the group targeted by the activity. Since the education system varies by country, a standardized classification has been established with the following labels: *Primary school* (< 12 years old), *Secondary school* (before entering university), *University*, *Postgraduate*, *Teachers*, and *Others*.

Type of activity: A list of the methodologies or dynamics implemented in each initiative. The categories include:

- *Networking activities*: Sessions that promote contact with professionals in the sector or researchers in a specific scientific field, facilitating professional projection after university studies.
- *Talks*: Sessions where one or more university representatives deliver lectures or presentations to the target audience.
- *Competition*: Events or sessions similar to hackathons, where prizes are awarded.
- *Courses*: A set of sessions spanning more than one day, where the target audience acquires specific knowledge and skills.
- *Debates*: Sessions in which the target audience participates in discussions, usually moderated by one or more university representatives.
- *Policy making*: Programs or organizational structures within the university that promote diversity and gender equity.
- *Support groups*: Accompaniment initiatives, which may include mentoring, emotional, or psychological support.
- *Communication initiatives*: Sessions, visits, or events that showcase the university's educational offerings, including fairs and open days.
- *Awards*: Recognitions granted for work carried out by the target audience. It is not required that this work has been developed at the university or the participants' educational institution.
- *Study programs*: Development of training programs aimed at strengthening knowledge, facilitating university admission or retention, attracting more women to STEM fields, or preparing for professional life.
- *Workshops*: Hands-on and practical activities that allow students to experiment in STEM fields.
- Others.

Underrepresented group: A list of underrepresented groups or collectives that are prioritized as recipients of the activity. The considered collectives include: *Females*, *Students with low socioeconomic level*, *Ethnic minorities*, and *Other minorities*. The inclusion of a group in this list does not necessarily mean that the initiative is exclusively targeted at that group; rather, it has been specifically designed to welcome and attract them to STEM studies. The definition of "low socioeconomic level" has not been quantified, leaving this criterion at the discretion of each originating institution.

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A. Attraction

The ***Attraction*** category encompasses initiatives designed to inspire and motivate individuals to view STEM (Science, Technology, Engineering, and Mathematics) as a viable and enriching path for academic and professional development. These initiatives aim to break stereotypes, foster interest in STEM, and promote diversity by targeting individuals at various stages of their educational journey.

A1. Awareness

Activities aimed at the general community to raise awareness about STEM careers and their potential impact. These initiatives often highlight the societal importance of STEM fields and strive to make them more accessible and appealing to underrepresented groups.

A1.1 Ada Byron Award

Attraction *Awareness*

- **Country:** Colombia
- **University:** Pontificia Universidad Javeriana
- **Effort:** Medium
- **Underrepresented target group:** Females
- **Target audience:** Postgraduates
- **Type of Activity:** Award

Description

The Ada Byron Award aims to recognize the contributions of women in STEM (Science, Technology, Engineering, and Mathematics). This award, granted annually, seeks to highlight the achievements of outstanding women in these fields, promoting their influence and contributions. The award ceremony is held in person on the university campus and is dedicated to women in STEM. The university promotes this event through social media and its website, emphasizing the importance of recognizing and celebrating women's work in these fields.

Website: https://www.javeriana.edu.co/premio-ada-byron/

A1.2 Descifra Interschool Competition

Attraction *Awareness*

- **Country:** Chile
- **University:** Pontificia Universidad Católica de Chile (UC Chile)
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Competition

Description

Interescolar Descifra is a bootcamp where students face ingenuity challenges that must be solved collaboratively, aiming to develop critical thinking among high school students. It is held once a year on a Saturday, in person, at the San Joaquín Campus of UC.

Website: https://www.redcrecemos.cl/colegios/dagoberto-godoy-lo-prado/noticias/tdg-lo-prado-participa-en-torneo-interescolar-descifra-orientado-a

A1.3 Engineering and Science Saturdays

Attraction *Awareness*

- **Country:** Chile
- **University:** Universidad de Chile
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Other
- **Type of Activity:** Talk, Workshops

Description

Engineering and Science Saturdays are designed to introduce high school students and the general public to the fields of engineering and science. During this event, participants have the opportunity to receive information about degree programs, vocational guidance, and a campus tour.

These sessions include talks, guided visits, and interactive activities to promote interest in STEM fields. The event has been held once a year since 2016 and is aimed at school students and their parents, encouraging their active engagement with the academic and professional world of engineering.

The event is mainly promoted through the university's website and social media.

Website: https://youtu.be/RrmcLOig66w?si=FPgfV7KL29nhGPp6

A1.4 Explain Me as if I Was 5 Years Old

Attraction *Awareness*

- **Country:** Portugal
- **University:** Instituto Superior Técnico (IST) - ULisboa
- **Effort:** Low
- **Underrepresented target group:** -
- **Target audience:** Primary School, Secondary School
- **Type of Activity:** Communication initiatives

Description

Explain Me as if I Was 5 Years Old is an initiative aimed at promoting informal conversations about STEM topics to the general public, especially school-aged children. The goal is to break down the barriers between STEM fields and young audiences by simplifying complex concepts and illustrating their real-world applications. The initiative targets primary and secondary school students as well as the general public, aiming to bring science and society closer. Online sessions, held on Saturday mornings for about one hour, feature scientists from Técnico explaining scientific concepts and answering questions from children and other curious individuals. The explanations are simplified and made accessible to a younger audience, focusing on illustrating the relevance and applicability of STEM fields. The sessions are streamed live on Facebook and later uploaded to YouTube, making them accessible to a wider audience. Participants can submit questions ahead of time via the project website or through the chat box during the live stream. Launched during the COVID-19 lockdown, this initiative aims to make science and engineering more relatable to young people and their families, and spark their interest in STEM topics.

Website: https://explicame.tecnico.ulisboa.pt/

A1.5 Expojaveriana

Attraction *Awareness*

- **Country:** Colombia
- **University:** Pontificia Universidad Javeriana
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Talk, Communication initiatives

Description

Expojaveriana is an event designed to introduce prospective students to the university's degree programs. Targeted at high school graduates and secondary school students, this in-person event is held twice a year and includes presentations and faculty tours, where participants can interact with students and professors to gain a deeper understanding of the different areas of study. The event aims to raise awareness and disseminate information about the university's academic offerings while fostering direct communication with schools. It is hosted at the university's facilities.

Website: https://www.javeriana.edu.co/relacionamiento/evento/expojaveriana-pregrados-2025/

A1.6 Guided Visits

Attraction *Awareness*

- **Country:** Chile
- **University:** Universidad de Chile
- **Effort:** Low
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Talk

Description

The University of Chile organizes guided tours for high school students to bridge the gap between school students and the university environment. These visits include informative talks and Q&A sessions, followed by tours of university facilities, with a special focus on laboratories and other key areas.

The tours can be in-person or virtual and take place approximately 15 times per month throughout the year. This program aims to familiarize students with university life and academic opportunities. These activities are available both in the Metropolitan Region and other cities in Chile.

Information about these visits is shared through the university's website, social media, and direct contact with schools.

A1.7 Hey! Get on the Train of the Future

Attraction *Awareness*

- **Country:** Spain
- **University:** Universitat Politècnica de Catalunya · BarcelonaTech (UPC)
- **Effort:** High
- **Underrepresented target group:** Females
- **Target audience:** Other
- **Type of Activity:** Communication initiatives

Description

The campaign Hey! Get on the Train of the Future is an initiative created by donesCOEINF, the gender commission of the Official College of Computer Engineering of Catalonia, to highlight the role of women in the digital world. Launched on February 11, 2023, in conjunction with International Day of Women and Girls in Science, this campaign celebrates the contributions of female Catalan IT engineers and historical female figures in IT.

The campaign used the maps of the Generalitat de Catalunya railway lines and advertising spaces on trains and stations to feature seventy female Catalan IT engineers, alongside prominent international historical female IT figures. The posters, displayed for a month, aimed to demystify the stereotypical image of the computer scientist by showcasing real women and diverse facets of the profession. Passengers were invited to scan QR codes on the posters to access a web portal with more information and resources about these women and their work.

This initiative seeks to promote gender equality in IT and inspire future generations of women to engage with technology and digital professions.

Website: https://enginyeriainformatica.cat/ei-puja-al-tren-del-futur/

A1.8 High School Visits

Attraction *Awareness*

- **Country:** Portugal
- **University:** Instituto Superior Técnico (IST) - ULisboa
- **Effort:** Low
- **Underrepresented target group:** Other minorities
- **Target audience:** Secondary School
- **Type of Activity:** Communication initiatives

Description

High School Visit's aim is to introduce international students, parents, and high school counsellors to the academic offerings at the university, with a focus on engineering and the advantages of studying abroad. These visits, typically lasting half a day and conducted multiple times throughout the year, serve to demystify STEM fields and encourage students, particularly those from outside the EU, to consider pursuing higher education in Lisbon. Through personalised meetings with counsellors and parents, fairs, and presentations for students, the Admissions Office team provides direct communication, highlighting the opportunities Técnico Lisboa offers and attracting prospective students who may not have initially considered STEM or studying in Portugal.

Some key implementation steps include: the preparation of dynamic presentations for students, including Q&A sessions and testimonials from Técnico students; preparation promotional material for fairs; setting up meetings with school counsellors, which increases their proximity with Técnico, resulting in increased confidence to suggest it a good option for their students; follow-up on communication with interested students and their families using a single point of contact to streamline communication and support the application process.

A1.9 Informational Sessions and Vocational Guidance Talks

Attraction *Awareness*

- **Country:** Dominican Republic
- **University:** Instituto Tecnológico de Santo Domingo INTEC
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Charlas, Debates

Description

Informative Sessions and Career Guidance Talks are initiatives designed to help high school students, graduates, and other interested individuals define their academic and professional paths. These talks, held both in-person and virtually at campuses and educational centers, aim to provide personalized advice to participants so they can make informed decisions about the career that best aligns with their interests and aspirations. Through discussion panels and conversations, professionals and school counsellors offer key information on various academic options, job opportunities, and the necessary steps to access higher education.

The event takes place quarterly and is supported by effective communication strategies, such as interactive social media posts (Instagram, Facebook, LinkedIn, and WhatsApp), personalized informational emails, live chat tools, and instant messaging to handle real-time inquiries. Additionally, INTEC uses data and segmentation to tailor messages according to each student's interests, ensuring more effective guidance. This initiative is part of the university's commitment to raising awareness and attracting new talent, providing support to the student community in the important decision of choosing their academic future.

A1.10 Invitations for Schools to Visit the University Facilities

Attraction *Awareness*

- **Country:** Colombia
- **University:** Pontificia Universidad Javeriana
- **Effort:** Low
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Talk

Description

This activity is conducted in person and consists of a guided tour of the campus, including visits to some buildings and laboratories, along with an informational session that allows students to get a closer look at the university environment. It is open to all school students and takes place several times a year at the university's facilities. To organize and promote the event, the university maintains direct communication with interested schools.

Website: https://www.javeriana.edu.co/relacionamiento/evento/visitas-guiadas-aspirantes-particulares/

A1.11 Open House

Attraction *Awareness*

- **Country:** Dominican Republic
- **University:** Pontificia Universidad Católica Madre y Maestra (PUCMM)
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Workshops

Description

The Open House is an initiative aimed at secondary school students. Its main objective is to support career decision-making for pre-university students through workshops and presentations at an in-person event organized each academic cycle. Through this event, the university promotes student recruitment by showcasing its academic offerings, establishing partnerships with schools and educational centers, and helping young people explore their future career paths. The promotion of this event is carried out through the university's website and social media, with activities held at the Santiago and Santo Domingo campuses.

Website: https://www.pucmm.edu.do/openhouse

A1.12 Open Science Fair

Attraction *Awareness*

- **Country:** Argentina
- **University:** Universidad Nacional de Cuyo (UNCuyo)
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School, Primary school, University, Postgraduates
- **Type of Activity:** Communication initiatives, Talk, Workshops, Networking Activities

Description

"The Open Science Fair is an annual event with the main objective of promoting scientific dissemination through the exhibition of research results and processes from the university's academic teams working under the Open Science initiative. The fair is open to the academic community and the general public, offering a space to interact with researchers and learn about their projects in various scientific fields.

The event is organized in two parts: first, conferences are given by project leaders related to open science, followed by the presentation of various open science initiatives and public communication of science. Attendees can actively participate in specialized thematic tables, such as robotics, archaeology, topography, and agroecological laboratories, where researchers present their work and allow the public to engage and learn more about accessible scientific knowledge development.

This event is promoted through a campaign that includes pre- and post-event bulletins, live interviews, and the use of social media to spread initiatives and facilitate community participation.

Website:
https://www.instagram.com/p/Cy6vR1ZJG_Q/?utm_source=ig_web_copy_link&igsh=MzRlODBiNWFlZA==

A1.13 Participation in the Book Fair

Attraction *Awareness*

- **Country:** Dominican Republic
- **University:** Pontificia Universidad Católica Madre y Maestra (PUCMM)
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Communication initiatives

Description

The annual Book Fair is an event featuring talks and workshops designed to introduce the university's academic programs, particularly those related to technology and innovation. This event is aimed at secondary school graduates, students, and parents and takes place at a location designated by the Ministry of Culture. The university promotes these activities through its website, social media, and press. In addition to talks, attendees have the opportunity to interact with innovative projects, such as robots, presented by the Faculty of Science and Engineering and the Marketing Department.

Website: https://prensa.pucmm.edu.do/academia/2023/08/28/pucmm-en-la-feria-del-libro-2023-una-muestra-de-tecnologia-con-robots/

A1.14 Research Days

Attraction *Awareness*

- **Country:** Argentina
- **University:** Universidad Nacional de Cuyo (UNCuyo)
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School, Primary school, University, Postgraduates
- **Type of Activity:** Communication initiatives, Talk, Workshops, Networking Activities

Description

Research Days is a biennial event aimed at showcasing research advances at the university and fostering interest in scientific research. The event is targeted at the entire academic community and the general public, offering a variety of activities such as talks, discussion panels, workshops, and networking events. Additionally, the event aims to strengthen research team networks and spark research interest among young students. It is promoted through a campaign using various media outlets, social media, YouTube, press releases, TV and radio interviews, and pre- and post-event bulletins.

Website: https://www.youtube.com/watch?v=9aYsTxbBj1Q

A1.15 School Visits

Attraction *Awareness*

- **Country:** Dominican Republic
- **University:** Pontificia Universidad Católica Madre y Maestra (PUCMM)
- **Effort:** Low
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Communication initiatives

Description

The school visit initiative targets secondary school students. The main objective is to support career decision-making by allowing pre-university students to learn about the institution and its academic offerings. This activity takes place each academic cycle and is conducted in person, with the participation of the university's Marketing Department, which establishes partnerships with schools and educational centers. Event information is shared through the university's website and social media.

Website: https://www.instagram.com/colegioeducarerd/p/C3ku29DrH4o/?img_index=1

A1.16 STEM Workshop for Women in Engineering Day

Attraction *Awareness*

- **Country:** Chile
- **University:** Pontificia Universidad Católica de Chile (UC Chile)
- **Effort:** Medium
- **Underrepresented target group:** Females
- **Target audience:** Secondary School
- **Type of Activity:** Workshops

Description

STEM Workshop for Women in Engineering Day is a three-hour classroom bootcamp teaching an Engineering-related topic, such as healthcare and artificial intelligence, through lectures and practical exercises. It is aimed at female secondary school students and is held once a year in June.

Website: https://www.ing.uc.cl/noticias/ninas-y-adolescentes-aprenden-sobre-ia-en-el-dia-internacional-de-la-mujer-en-ingenieria/

A1.17 Talks and Debates for the International Day of Women and Girls in Science

Attraction *Awareness*

- **Country:** Argentina
- **University:** Universidad Nacional de Cuyo (UNCuyo)
- **Effort:** Low
- **Underrepresented target group:** Females
- **Target audience:** Teachers
- **Type of Activity:** Panel Discussion, Talk

Description

Talks and Debates for the International Day of Women and Girls in Science aim to bring together female scientists, researchers, and academic authorities to discuss the state of science from a gender perspective. This space fosters dialogue on gender gaps in science and seeks to generate or propose solutions to encourage the active participation of women in scientific and technological research.

Through these talks, university authorities and researchers present and debate initiatives to promote scientific vocations with a gender focus, proposing concrete actions to improve the visibility and impact of women in science. These initiatives seek to create a more inclusive and accessible environment for all women interested in science.

The event is mainly disseminated through post-event bulletins and social media to extend the impact of the proposals and reflections generated during the event.

Website: https://www.uncuyo.edu.ar/ciencia_tecnica_y_posgrado/debatieron-el-rol-de-la-mujer-y-la-ciencia-en-la-universidad

A1.18 Técnico Open Day

Attraction *Awareness*

- **Country:** Portugal
- **University:** Instituto Superior Técnico (IST) - ULisboa
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Primary School, Secondary School, University
- **Type of Activity:** Communication initiatives

Description

Técnico Open Day is an annual event, designed to humanise the school and break down barriers between the institution, science, and society, deconstructing stereotypes associated to scientists. The event, held once a year on a Saturday, invites the general public, including primary and secondary school students, university and postgraduate candidates, to explore the research and academic offerings at Técnico, and demonstrating the quality of he school through project usually less visible outside the academic community. Over the course of the day, more than 40 interactive exhibitions designed to attract diverse age groups showcase research and innovation projects, allowing participants to engage with experiments and projects led by students and faculty. Additionally, guided tours of teaching and research laboratories provide a first-hand look at the work being done at Técnico, while discussions and interactive activities with professors and researchers offer deeper insights into scientific hot topics or into the academic life at Técnico, opportunities and potential career paths. Besides logistical aspects and the effort to mobilise the school to contribute to the initiative, key implementation aspects include regular meetings between the organisation (Communication Area) and representatives from scientific departments, research units, and other stakeholders. These meetings help gather input, align expectations, and ensure the event meets everyone's needs. Additionally, visitor data, including origin and expectations, is collected during the event to monitor attendance and better understand the audience for future editions.

Website: https://diaaberto.tecnico.ulisboa.pt/

A1.19 The Scientific Suitcase

Attraction *Awareness*

- **Country:** Argentina
- **University:** Universidad Nacional de Cuyo (UNCuyo)
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Communication initiatives, Workshops

Description

The Scientific Suitcase "La Valija Científica" is an annual initiative aimed at students in their last years of secondary school and recent high school graduates. This program seeks to bring young people closer to and raise awareness about science through visits to secondary schools, where interactive activities are carried out with the support of students from the Faculty of Exact and Natural Sciences. The activity is promoted through a social media campaign and local media, including the university's radio and TV stations. This project aims to generate interest in basic sciences among young people.

Website:
https://www.instagram.com/reel/CkQ2qtyprZU/?utm_source=ig_web_copy_link&igsh=MzRlODBiNWFlZA%3D%3D

A1.20 The Tesos Club

Attraction *Awareness*

- **Country:** Colombia
- **University:** Universidad de los Andes
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Communication initiatives, Competition

Description

The Tesos Club is designed to inspire school students to develop an interest in STEM careers (science, technology, engineering, and mathematics). Through a virtual outreach campaign and a mobile app, students take a personality quiz to discover which prominent STEM figure they have the most in common with. Once they find their ""match,"" students can explore more about these figures and learn about their achievements in science and technology.

The project seeks to make STEM more accessible through interactive content and is primarily conducted via social media and the mobile app. This virtual experience provides a dynamic and educational approach for young people, showcasing inspiring role models in these fields.

Ongoing posts on the official website and social media pages of the Faculty of Engineering provide updates on the activity.

Website: https://ingenieria.uniandes.edu.co/es/el-club-de-los-tesos

A1.21 This Is Técnico - Undergraduate Degrees

Attraction *Awareness*

- **Country:** Portugal
- **University:** Instituto Superior Técnico (IST) - ULisboa
- **Effort:** Low
- **Underrepresented target group:** Other minorities
- **Target audience:** Secondary School
- **Type of Activity:** Communication initiatives

Description

This Is Técnico is an initiative aimed at showcasing the institution's academic offerings to prospective students across Portugal, especially those who may not be able to visit the campus in person. The initiative can be split into 3 categories. This is Técnico – Undergraduate Degrees/ Masters Degrees offer two online events through which students have the opportunity to engage with academic staff and current Técnico students to learn about the undergraduate or master programs. The initiative is held once a year over two full days, with multiple 2-hour sessions, including institutional presentation and application and admission process, followed by specific sessions dedicated to each study program. These presentations cover the study areas, curriculum, and extracurricular opportunities, often highlighting student-led clubs. ISTO é Conversa! (or This is Chat!) allows candidates to book an informal conversation with Técnico student. These sessions take place online an in small groups, offering a more personalised experience.

The initiative emerged during the COVID-19 pandemic and obtained very positive results during its 3 editions. Despite the possibility of offering a comprehensive understanding of Técnico's academic offerings and university life to students across the country regardless of their ability to attend in-person events, its growth became limited. Taking advantage of the popularity of the podcast format, the initiative was converted into a podcast with 21 episodes, with students, professors and students' clubs, offering a complete and lasting overview of the academic experience at Técnico.

Website: https://nape.tecnico.ulisboa.pt/atividades-2/divulgacao-do-tecnico/isto-e/isto-e-tecnico-licenciaturas/

A1.22 Uniandes Family Fest y Uniandes Fest

Attraction *Awareness*

- **Country:** Colombia
- **University:** Universidad de los Andes
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Communication initiatives

Description

Uniandes Family Fest and Uniandes Fest are events aimed at school students, parents, and the general community. Their goal is to showcase the university's academic offerings, particularly in STEM careers, and create a space for interaction between the university and prospective students.

During these festivals, attendees can explore faculty information booths, engage with undergraduate programs, and attend talks about the admissions process and available financial aid options. These events provide participants with a deeper understanding of university life and key information to make informed decisions about their academic and professional future.

They are held annually, with Uniandes Fest in October and Family Fest in May. The activities are promoted through social media, the university website, newsletters, and direct contact with schools.

Website: https://economia.uniandes.edu.co/noticia/2024/uniandes-fest

A1.23 University Fairs

Attraction *Awareness*

- **Country:** Chile
- **University:** Universidad de Chile
- **Effort:** Low
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Communication initiatives

Description

The University of Chile actively participates in university fairs to disseminate information about the programs offered by the institution. These events are aimed at high school students interested in university careers. The university organizes information booths and presentations on academic programs, held both in the Metropolitan Region and other cities in Chile. This type of participation aims to attract and inform students about higher education opportunities, providing key details on career options, admission processes, applications, and university life. These fairs are held at least three times a year, and communication is complemented by brochures, a website, and inquiry forms that help students access all the necessary information to make informed academic decisions.

Website: https://uchile.cl/noticias/220797/la-u-de-chile-recibira-a-miles-de-postulantes-en-su-feria-de-admision

A1.24 University Fairs at Schools in Bogotá and Other Regions

Attraction *Awareness*

- **Country:** Colombia
- **University:** Pontificia Universidad Javeriana
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Communication initiatives

Description

The University Fairs at schools in Bogotá and other regions is an initiative organized by the marketing office. These fairs take place in different cities across Colombia. Pontificia Universidad Javeriana participates with an informational stand and presentations about its academic programs. The goal of this initiative is to introduce prospective students to the university's degree programs.

Website: https://www.javeriana.edu.co/relacionamiento/actividades-pregrado

A1.25 UPC School Agenda

Attraction *Awareness*

- **Country:** Spain
- **University:** Universitat Politècnica de Catalunya · BarcelonaTech (UPC)
- **Effort:** Low
- **Underrepresented target group:** Females
- **Target audience:** Primary School, Secondary School
- **Type of Activity:** Communication initiatives

Description

The UPC School Agenda is an initiative aimed at addressing the underrepresentation of female role models in engineering. The program seeks to highlight the contributions of current female figures in this field, including both students and researchers.

The publisher Llunna Edicions annually offers different agenda models to public primary schools, with the UPC agenda being one of them. UPC is responsible only for providing photographs and short biographies of its students and researchers. The agenda is distributed each year in schools, serving as a daily reminder for students of the achievements of women in science and engineering. Additionally, it serves as a source of inspiration by showcasing the significant roles that women play in these fields.

This initiative promotes gender equality in STEM by highlighting female role models in engineering, encouraging the next generation of students to pursue careers in these traditionally male-dominated fields.

Website: http://www.llunna.com/ca/productes/agendes-personalitzades-2023-2024-3/agenda-tecnologica---universitat-politecnica-catalunya-21.htm

A1.26 Women, Science, and Technology Event

Attraction *Awareness*

- **Country:** Colombia
- **University:** Universidad de los Andes
- **Effort:** Medium
- **Underrepresented target group:** Females
- **Target audience:** Secondary School
- **Type of Activity:** Panel Discussion, Workshops, Networking Activities

Description

The Women, Science, and Technology Event aims to promote girls' interest in STEM (science, technology, engineering, and mathematics), particularly in engineering and science careers. Targeted at girls aged 8 to 13 from public and private schools, the event includes activities such as workshops, discussion panels, networking, and hands-on experiences in laboratories.

Held annually to commemorate the International Day of Women and Girls in Science, the event features a day of talks with professors, students, and alumni from the faculties of science and engineering. Participants also take an interactive tour of the university's laboratories, and a free workshop is offered to teachers on best practices in STEM education.

The talks are streamed live via Zoom for schools that wish to participate virtually.

The event is promoted through direct contact with schools, social media, and newsletters.

Website: https://ingenieria.uniandes.edu.co/es/eventos/ciencia-mujer-tecnologia-2023

A2. Exploration

Opportunities that allow participants, particularly primary and secondary school students, to experiment with STEM concepts in practical and engaging ways. These activities provide hands-on experiences that demystify STEM and encourage curiosity.

A2.1 Career Discussion Panel

Attraction *Exploration*

- **Country:** Dominican Republic
- **University:** Instituto Tecnológico de Santo Domingo (INTEC)
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Talk, Panel Discussion

Description

The Career Discussion Panel is a space designed so that high school students, high school graduates and those interested in university careers can clarify their doubts about the career they are passionate about. Through meetings with coordinators of academic programs, participants have the opportunity to learn more about the curricula, the labour field and the opportunities offered by each discipline. The main objective is to provide support to prospective students, providing relevant information to help them make an informed decision about their academic future. Dissemination is done through publications on social networks such as Instagram, Facebook, LinkedIn and WhatsApp, in addition to sending personalized mailings and event reminders. Live chat and WhatsApp tools are also used to answer questions in real time, along with message segmentation strategies according to the participants' area of interest, such as science, arts or technology. Data is also used to personalize communication according to students' needs and preferences.

Website: https://hoy.intec.edu.do/evento/induccion-de-areas-academica-grado-5/

A2.2 Civil Engineering Seminar

Attraction *Exploration*

- **Country:** Dominican Republic
- **University:** Pontificia Universidad Católica Madre y Maestra (PUCMM)
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Talk

Description

The Civil Engineering Seminar is aimed at students interested in Industrial and Systems Engineering, with the goal of promoting a comprehensive perspective of engineering, highlighting lesser-known areas, and showcasing development opportunities within this field. This seminar is held annually at the Santiago campus and seeks to attract students by providing them with a broad overview of engineering opportunities. It is promoted through the university's website and social media.

Website: https://drive.google.com/file/d/1mFAqZg1pwV-Li0ta-ZmvH-We-Sl5SFLl/view

A2.3 CODing

Attraction *Exploration*

- **Country:** Chile
- **University:** Pontificia Universidad Católica de Chile (UC Chile)
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Primary School, Secondary School
- **Type of Activity:** Study Program

Description

CODing is an educational program that teaches Python programming through weekly in-person sessions combining lectures and hands-on exercises. It is aimed at primary and secondary school students.

Website: https://www.ing.uc.cl/vinculacion-con-el-medio/preingenieria/seeding-clases-de-programacion-para-escolares/

A2.4 Educational Expo

Attraction *Exploration*

- **Country:** Argentina
- **University:** Universidad Nacional de Cuyo (UNCuyo)
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Communication initiatives, Talk

Description

The Educational Expo is an annual event aimed at informing students in their last years of secondary school and recent high school graduates about higher education opportunities. This event follows a blended format, combining in-person and virtual activities through an exclusive website, allowing greater accessibility for students from all over Mendoza and other regions.

It is designed to offer students a comprehensive view of the educational options available at the university, providing detailed information about study programs, scholarships, and admission requirements. Additionally, it promotes direct interaction with the university's academic and administrative staff to address questions and create an orientation space for young people.

The event is promoted through social media campaigns, outdoor advertising, and partnerships with municipalities and the General Directorate of Schools of Mendoza. These actions allow reaching a wide audience, including guidance counselling departments in secondary schools throughout the province.

Website: https://www.expoeducativa.mendoza.edu.ar/

A2.5 Entrepreneurship U Contest

Attraction *Exploration*

- **Country:** Argentina
- **University:** Universidad Nacional de Cuyo (UNCuyo)
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Competition

Description

The Entrepreneurship U Contest is an annual event aimed at stimulating primary and secondary school students' ability to address local problems through innovative ideas backed by technological advances. The contest seeks to generate proposals that have a positive impact on social, environmental, economic, and cultural areas. Participants develop solutions to local challenges, promoting entrepreneurial thinking and innovation.

This contest is targeted at students from secondary schools, technical colleges, and universities in Mendoza and Córdoba. The event is organized by the University's Secretariat of Outreach and University Extension and is held in-person. Promotion is carried out through social media campaigns and collaboration with the guidance counselling departments of schools in the province.

Since its inception in 2014, the contest has been a key platform for fostering entrepreneurship among young people and providing them with tools to turn ideas into viable projects that can create real change in society.

Sitio web: https://youtu.be/to-trj0aaxY?feature=shared

A2.6 Female Engineers for One Day

Attraction *Exploration*

- **Country:** Portugal
- **University:** Instituto Superior Técnico (IST) - ULisboa
- **Effort:** High
- **Underrepresented target group:** Females
- **Target audience:** Secondary School
- **Type of Activity:** Communication initiatives, Workshops, Support Groups

Description

The Female Engineers for One Day program, launched in 2017, aims to reduce gender discrimination in professional contexts and promote equal opportunities for women in engineering and technology. It engages female students, teachers, and parents through hands-on challenges, workshops, mentoring, and company visits. Since its creation, the initiative has reached over 21,000 female students across 52 schools in Portugal, partnering with 75 institutions, 11 municipalities, and 19 higher education institutions (HEIs). Técnico Lisboa is one of the coordinating institutions.

A key initiative, Engineering Challenges, allows students to tackle real-life STEM problems, showcasing their potential impact in these fields. The program also offers Girls in Engineering and Technology workshops, covering topics like gender equality in AI, women in IT careers, and leadership. It includes work experiences through company visits and mentoring, with Natixis pairing students with female professionals. Girls in ICT Day is also celebrated with school activities and STEM lab visits to inspire young women.

Beyond students and teachers, families are engaged in workshops and talks to break stereotypes influencing career choices. The program's success relies on a strong network of schools, HEIs, companies, municipalities, and government bodies. Effective communication and continuous feedback collection ensure ongoing improvement.

Website: https://engenheirasporumdia.pt/

Video: https://www.youtube.com/watch?v=4vrDNITyMek&t=149s&ab_channel=APPDI

A2.7 Girls' Day

Attraction *Exploration*

- **Country:** Germany
- **University:** Universität Stuttgart (USTUTT)
- **Effort:** High
- **Underrepresented target group:** Females
- **Target audience:** Secondary School
- **Type of Activity:** Communication initiatives, Workshops

Description

Girls' Day is an annual event designed to inspire young girls to explore STEM fields through hands-on workshops and networking opportunities. Held every spring, the program offers more than 500 spots for girls in grades 5-10, allowing them to conduct experiments, write simple computer programs, and assemble construction kits. Participants also interact with female students and scientists, gaining insight into the impact of science and technology on everyday life and the creative opportunities within these fields. By showcasing STEM as an exciting and inclusive space, Girls' Day encourages young women to consider careers in traditionally underrepresented areas.

Website: https://www.uni-stuttgart.de/studium/orientierung/girls-day/

A2.8 Hands-On STEM Workshops

Attraction *Exploration*

- **Country:** Dominican Republic
- **University:** Instituto Tecnológico de Santo Domingo (INTEC)
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Workshops

Description

Hands-On STEM Workshops are an in-person initiative aimed at high school students and graduates interested in careers related to science, technology, engineering, arts, and mathematics (STEAM). These workshops, held quarterly on campus, aim to foster participants' curiosity and creativity by allowing them to apply theoretical knowledge in practical, real-world situations. Each session, lasting three hours, is designed to provide an immersive experience in various disciplines, including Biotechnology, Biomedical Engineering, and Electronic and Communications Engineering, among others. The methodology used promotes active learning, allowing students to experiment and develop key skills for their academic and professional training. To ensure greater outreach and impact, the program relies on digital communication strategies, such as interactive posts on social media (Instagram, Facebook, LinkedIn, and WhatsApp), sending personalized emails, live chat tools, and message segmentation based on each student's interest. Through this initiative, INTEC seeks to attract and engage future talent in the STEM world, offering opportunities for exploration and learning in a dynamic and innovative environment.

Website:
https://intec.edu.do/downloads/documents/estudiantes/Documento_explicativo___Talleres_Hands_On_1.pdf?fbclid=IwY2xjawGZ4BxleHRuA2FlbQIxMAABHe4JRXJJHe4k1dzQmyuHxeLJZ7DcwUwu6kqcqr-WEv45AE0dLlQPCTUYZw_aem_sdR7Yz6Tl6Vxk4ftqt1x_g

A2.9 Here STEAM

Attraction *Exploration*

- **Country:** Spain
- **University:** Universitat Politècnica de Catalunya · BarcelonaTech (UPC)
- **Effort:** High
- **Underrepresented target group:** Females
- **Target audience:** Primary School, Secondary School
- **Type of Activity:** Communication initiatives, Workshops, Support Groups, Courses

Description

Here STEAM is an initiative aimed at attracting female talent to engineering studies while challenging gender stereotypes and promoting the visibility of female role models in STEM. The program focuses on engaging primary and secondary school students and transforming the way STEAM subjects (Science, Technology, Engineering, Arts, and Mathematics) are perceived by young women.

Each year, around 25 schools participate in this free program, offering the following benefits:

1. Training for Faculty: Teachers participate in training to incorporate STEAM actions into their classrooms with a gender-inclusive perspective.
2. Here STEAM UPC Badge: Schools that participate receive the prestigious Here STEAM UPC badge to demonstrate their commitment to promoting gender equality in STEAM.
3. Workshops and Talks: Schools can request a reference researcher from UPC to visit and deliver talks or workshops, providing first-hand insights into STEAM fields.
4. Mentorship for Teachers: Schools can also request mentorship from a UPC researcher to help teachers design and implement their own STEAM projects.

The program enjoys support from the Department of Education of the Generalitat of Catalonia, the Barcelona Education Consortium, and various companies and organizations.

Website: https://aquisteam.upc.edu/ca

A2.10 Individual and Group Guided Tours

Attraction *Exploration*

- **Country:** Dominican Republic
- **University:** Instituto Tecnológico de Santo Domingo (INTEC)
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Talk

Description

Individual and Group Guided Tours are an initiative aimed at high school students interested in STEM careers, teachers, school counsellors, educational institutions, university students in the process of changing careers, as well as parents and guardians. The main goal is to publicize INTEC's academic offerings and clarify doubts about study programs, providing participants with an immersive experience within the university campus. During the visit, attendees can tour the university's physical infrastructure, including simulation labs, libraries, radio and television studios, and other spaces of interest based on their academic aspirations. Visits are held in person and on-demand, offering greater flexibility for interested individuals. To complement this experience, INTEC uses digital communication strategies such as posts on social media (Instagram, Facebook, LinkedIn, and WhatsApp), sending personalized emails, live chat tools, and message segmentation for different interest groups. With this initiative, INTEC seeks to strengthen the connection with future students and their families, offering a real approach to university life and facilitating informed academic decision-making.

Website: https://www.intec.edu.do/acerca-de-intec/el-campus/visitas-guiadas?highlight=WyJ2aXNpdGFzIiwidmlzaXRhcnNlIiwidmlzaXRhY2lcdTAwZjNuIiwidmlzaXRhclx1MDBlMSIsInZpc2l0ZW4iLCJ2aXNpdGFkYSIsImd1aWFkYXMiLCJndVx1MDBlZGUiLCJndWlhcm9uIiwiZ3VpXHUwMGYzIl0=

A2.11 INTEC FEST

Attraction *Exploration*

- **Country:** Dominican Republic
- **University:** Instituto Tecnológico de Santo Domingo (INTEC)
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Talk

Description

INTEC FEST is an annual event aimed at high school students and graduates, with the purpose of exploring and engaging young people in the different fields of study offered by the university. Through fun activities, interactive games, talks, and conferences, participants can learn more about entrepreneurship, innovation, and technology, guided by academic coordinators, active students, and distinguished alumni. This event, held in person on INTEC's campus, aims to facilitate students' vocational decision-making and is promoted through posts on social media, sending personalized emails, using live chat and WhatsApp to resolve questions, and segmenting messages based on the participants' interests.

Website: https://www.intec.edu.do/notas-de-prensa/item/preparate-para-intec-fest-y-empieza-a-tripular-tu-sueno

A2.12 International Day of Women and Girls in Science

Attraction *Exploration*

- **Country:** Colombia
- **University:** Universidad de los Andes
- **Effort:** High
- **Underrepresented target group:** Females
- **Target audience:** Secondary School
- **Type of Activity:** Workshops, Talk, Award

Description

The International Day of Women and Girls in Science is an annual event designed to inspire school-age girls and young women to pursue STEM fields and reduce the gender gap in science and technology. Through workshops, talks, and hands-on laboratory experiences, the event encourages female students to consider scientific careers. Additionally, a scholarship is awarded to the student with the highest academic performance during the event.

The event is promoted through partnerships with schools, direct contact with school counsellors, and social media campaigns.

Website: https://www.instagram.com/p/CcqKtfaKtMH/

A2.13 Job Fair

Attraction *Exploration*

- **Country:** Dominican Republic
- **University:** Pontificia Universidad Católica Madre y Maestra (PUCMM)
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School, Postgraduates, University
- **Type of Activity:** Communication initiatives

Description

The Job Fair is an annual event that aims to connect students, graduates, and professionals with various companies, facilitating career advancement opportunities. It is open to the general public, including high school graduates, university students, parents, women, students from low-income families, ethnic minorities, and rural communities. In addition to promoting inclusion and diversity in the job market, the fair is organized by the university's School of Industrial Engineering and is publicized through the university's website, social media, and a national newspaper.

Website: https://feria-empleo.pucmm.edu.do/inicio/

A2.14 Little Robot

Attraction *Exploration*

- **Country:** Argentina
- **University:** Instituto Tecnológico de Buenos Aires ITBA
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Primary School
- **Type of Activity:** Workshops

Description

Little Robot is an introductory robotics course for children aged 8 to 10, designed to encourage an early and playful approach to technology, particularly robotic systems. This free activity allows kids to take their first steps in programming and logical thinking by solving creative challenges using computers and robots. They are taught basic programming concepts so they can feel like creators of robot movements rather than just users.

The activity consists of four classes, where students work in mixed-gender teams to complete different exercises and challenges to control mBot robots. The course is held on Saturdays and is led by ITBA student and faculty volunteers.

Website: https://www.itba.edu.ar/centros/cedemei/robotito/

A2.15 Living Lab for High School Vocational Counselors

Attraction *Exploration*

- **Country:** Argentina
- **University:** Instituto Tecnológico de Buenos Aires ITBA
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Workshops, Networking Activities

Description

This initiative aims to create a space for reflection on vocational guidance in secondary schools, with a special focus on STEM careers. Through working sessions with vocational counsellors from the educational system, it fosters dialogue between schools and universities, strengthening interinstitutional collaboration to support young people in their career decision-making process.

The activities allow for the exploration of new support strategies and provide tools to understand both the opportunities in STEM careers and the psychosocial and educational profiles best suited for them. It is designed for professionals working in vocational guidance, such as tutors, mentors, psychologists, educational psychologists, and academic advisors.

Website: https://drive.google.com/file/d/1SkxgSTrIP9K1Vk7o2iwFVeF1QVtYDvJ7/view

A2.16 MakeMINTcool

Attraction *Exploration*

- **Country:** Germany
- **University:** Universität Stuttgart (USTUTT)
- **Effort:** Low
- **Underrepresented target group:** Females, Students with low socioeconomic level, Other minorities
- **Target audience:** Secondary School
- **Type of Activity:** Workshops, Courses, Competition

Description

MakeMINTcool is an initiative of the Stuttgart MINT Cluster that aims to promote STEM education among students ages 10-16 in the greater Stuttgart area. With a focus on gender and ethnic diversity, the program consolidates existing STEM offerings while developing new, targeted initiatives to engage young learners. Through hands-on workshops, communication campaigns, and networking opportunities, makeMINTcool showcases the excitement and career potential of STEM fields. The initiative is led by the University of Stuttgart in collaboration with key partners, including Fraunhofer Gesellschaft, the MINT Region Böblingen, the Association of German Engineers (VDI), and Stuttgart's network of youth centers.

Website: http://www.makemintcool.de/

A2.17 Open Classes

Attraction *Exploration*

- **Country:** Argentina
- **University:** Instituto Tecnológico de Buenos Aires ITBA
- **Effort:** Low
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Talk, Workshops

Description

This activity offers high school students the opportunity to explore ITBA's university environment, attend classes, and visit its facilities. During 2023, six classes were held in various fields of study, including Data Science, Business Management, Electronic Engineering, Industrial Engineering, and Chemical Engineering, with over 50 students participating.

Additionally, hands-on workshops were conducted both in ITBA's laboratories and facilities, as well as in secondary schools themselves, allowing students to directly experience the dynamics of each discipline. This initiative not only facilitates practical learning but also provides the opportunity to interact with university professors and students, who share their knowledge and academic experiences.

Website: https://www.itba.edu.ar/agenda/clase-abierta-industrial-energias-renovables-convencionales/

A2.18 Organize Yourself with Your Program & Walking in Uniandes

Attraction *Exploration*

- **Country:** Colombia
- **University:** Universidad de los Andes
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Talk, Workshops

Description

These initiatives are designed for school students interested in joining the university, especially in STEM fields. Activities include guided campus tours, where participants visit laboratories and faculties, as well as informational talks on undergraduate programs, the admissions process, tuition costs, and financial aid options. Additionally, students have the opportunity to interact with academic program representatives to ask questions and obtain detailed information.

Visits take place every Tuesday and Thursday and are promoted through social media, the university website, and direct contact with school counsellors.

Website: https://aspirantes.uniandes.edu.co/es/eventos/programate-con-tu-programa

A2.19 Participation in School Fairs

Attraction *Exploration*

- **Country:** Colombia
- **University:** Universidad de los Andes
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Talk, Communication initiatives

Description

These informational fairs feature interactive booths and talks with STEM professionals, tailored to answer students' questions. The goal is to present the university's academic offerings, including STEM programs, and spark interest among students and their parents.

Website: https://aspirantes.uniandes.edu.co/es/pregrado/servicios-colegios

A2.20 Pro Girls Course

Attraction *Exploration*

- **Country:** Chile
- **University:** Pontificia Universidad Católica de Chile (UC Chile)
- **Effort:** High
- **Underrepresented target group:** Females
- **Target audience:** Primary School, Secondary School
- **Type of Activity:** Study Program

Description

Pro Girls is an annual artificial intelligence course covering applications, algorithms, and tools while teaching programming skills in Python. No prior knowledge is required to participate. The course is aimed at teenage girls and consists of 20 sessions held on Saturdays from April to September.

Website: https://ninaspro.cl/#/

A2.21 Programs Designed for Schools

Attraction *Exploration*

- **Country:** Chile
- **University:** Universidad de Chile
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Talk, Workshops, Study Program

Description

The University of Chile offers programs specifically designed for schools to bring high school students closer to the academic world. These programs include requested-topic lectures and hands-on laboratory experiences, providing a deeper insight into scientific and technological fields.

These programs are coordinated exclusively for educational institutions and vary in duration, ranging from a single session to activities spanning up to five weeks, depending on the school's needs. During these experiences, students participate in workshops, lectures, and practical activities, allowing them to interact with the university and its resources.

The promotion of these programs is conducted through the faculty's website and social media, based on demand from interested schools.

A2.22 SaviaLab

Attraction *Exploration*

- **Country:** Chile
- **University:** Pontificia Universidad Católica de Chile (UC Chile)
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School, Teachers
- **Type of Activity:** Study Program

Description

SaviaLab is a training space focused on early innovation methodologies using project-based learning. It is designed for teachers in rural high schools, providing training to develop innovative projects with their students.

Website: https://savialab.fia.cl/

A2.23 School Contacts

Attraction *Exploration*

- **Country:** Germany
- **University:** Universität Stuttgart (USTUTT)
- **Effort:** High
- **Underrepresented target group:** Females, Students with low socioeconomic level, Other minorities
- **Target audience:** Secondary School
- **Type of Activity:** Communication initiatives, Workshops, Talk

Description

School Contacts is a vocational orientation program designed to spark interest in higher education through presentations and workshops at secondary schools, as well as guided visits to the University of Stuttgart. Targeted at secondary school students and teachers, the program provides information about study programs, university life, and the admission process. Activities include lectures, lab visits, interactions with university students, and hands-on experiences such as workshops and campus tours. University professors actively participate in school visits 1-2 per year, serving as reliable points of contact for those seeking to learn more about higher education.

Website: https://www.uni-stuttgart.de/studium/orientierung/workshops-und-beratungen/

A2.24 Science Fair and Argentine Junior Science Olympiad

Attraction *Exploration*

- **Country:** Argentina
- **University:** Universidad Nacional de Cuyo (UNCuyo)
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Communication initiatives, Competition

Description

The Science Fair and the Argentine Junior Science Olympiad are annual events focused on promoting scientific vocations among young people and fostering appreciation for scientific work from an early age. These events are targeted at students in the final years of primary and secondary school, with the goal of encouraging both students and teachers to actively participate in experimental sciences.

The event consists of a science fair where students present their scientific projects, as well as evaluations for the Olympiad held in various schools throughout the province of Mendoza. It seeks to encourage student participation while collaborating with the educational system to improve the teaching of experimental sciences.

Furthermore, a platform for teacher updates on experimental science content is offered, which contributes to improving teaching at the primary and secondary levels. The event is promoted through social media campaigns and contact with guidance counselling departments in secondary schools throughout Mendoza.

A2.25 Star Hunters

Attraction *Exploration*

- **Country:** Chile
- **University:** Universidad de Chile
- **Effort:** High
- **Underrepresented target group:** Females
- **Target audience:** Secondary School
- **Type of Activity:** Talk, Study Program, Workshops

Description

Star Hunters is an initiative aimed at inspiring, educating, and empowering women interested in astronomy. This program encourages the active participation of girls, young women, and women in the exploration and scientific dissemination of the universe, promoting inclusion and gender equity in the field of space sciences.

The activities include educational workshops, astronomical observations, motivational talks, and collaborative projects. These are conducted both in-person and virtually, ensuring that participants not only gain an introduction to astronomy but also become agents of change and science communicators.

The program organizes workshops 4 to 6 times a year, astronomical observations 3 to 5 times a year, and outreach talks around 6 to 8 times a year.

The activities are mainly promoted through its website, social media, and visits. Additionally, events take place in various locations across the country, not just on the university campus.

Website: https://cazadorasdeestrellas.cl/

A2.26 STEM Academy for School Students

Attraction *Exploration*

- **Country:** Chile
- **University:** Pontificia Universidad Católica de Chile (UC Chile)
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Study Program

Description

STEM Academy for School Students offers 12-15 exploratory workshops that present engineering, science, and mathematics topics alongside everyday subjects such as gastronomy, prosthetics, sports, and architecture. The goal is to help students see how engineering applies to real-world challenges. The academy is aimed at students in secondary school and takes place during winter and summer vacations, running for one week in the mornings.

Website: https://www.ing.uc.cl/vinculacion-con-el-medio/preingenieria/academia-stem-uc/

A2.27 STEM Bootcamp for School Teachers

Attraction *Exploration*

- **Country:** Chile
- **University:** Pontificia Universidad Católica de Chile (UC Chile)
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Teachers
- **Type of Activity:** Courses, Workshops

Description

STEM Bootcamp for School Teachers consists of 12-15 simultaneous courses connecting science and engineering disciplines with school curriculum topics. The bootcamp trains school teachers in STEM content and teaching strategies not available through online platforms or standard academic training programs. It lasts for three mornings during winter and summer vacations.

Website: https://www.ing.uc.cl/vinculacion-con-el-medio/preingenieria/bootcamp-stem-docente-uc/

A2.28 Technovation Girls

Attraction *Exploration*

- **Country:** Chile
- **University:** Pontificia Universidad Católica de Chile (UC Chile)
- **Effort:** High
- **Underrepresented target group:** Females
- **Target audience:** Primary School, Secondary School
- **Type of Activity:** Study Program

Description

Technovation Girls is a training program where participants learn to design and program a mobile application addressing one of the United Nations' Sustainable Development Goals. It is also an international competition. The program is aimed at female primary and secondary school students and runs for one semester. Up to four cohorts are offered each year.

Website: https://technovation.cl/

A2.29 TryScience

Attraction *Exploration*

- **Country:** Germany
- **University:** Universität Stuttgart (USTUTT)
- **Effort:** High
- **Underrepresented target group:** Females, Students with low socioeconomic level, Other minorities
- **Target audience:** Secondary School
- **Type of Activity:** Workshops

Description

TryScience is an outreach program that introduces secondary school students to STEM studies through hands-on workshops, campus visits, and informational events at the University of Stuttgart. With a gender-inclusive approach, the program helps students explore whether a STEM degree is right for them by engaging directly with university students and researchers. Activities include study orientation sessions, guided campus tours, and interactive workshops where participants experience research firsthand and discover the excitement of STEM fields. TryScience runs throughout the year, with events lasting approximately 3.5 hours.

Website: http://www.uni-stuttgart.de/tryscience

A2.30 Visits to Educational Centers

Attraction *Exploration*

- **Country:** Dominican Republic
- **University:** Instituto Tecnológico de Santo Domingo (INTEC)
- **Effort:** Low
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Talk

Description

Educational Center Visits are an initiative aimed at high school students, graduates, and school counsellors. This program aims to publicize INTEC's academic offerings and bring students closer to opportunities for higher education in various fields of study. Visits, which take place from September to May, can be in-person or virtual, depending on the availability of each educational center. During these sessions, INTEC representatives present information about academic programs, answer questions, and provide guidance to students interested in continuing their university education. To maximize reach, the program is supported by digital communication strategies, including posts on social media (Instagram, Facebook, LinkedIn, and WhatsApp), sending informational emails, live chat tools, and message segmentation for different interest groups. With this initiative, INTEC seeks to strengthen its bond with the student community, facilitating access to key information for academic and professional decision-making.

Website: https://www.intec.edu.do/notas-de-prensa/item/intec-lleva-la-educacion-stem-a-las-escuelas

A3. Immersion

Programs offering deeper and more personalized experiences in STEM. These initiatives are designed to strengthen participants' interest and confidence in pursuing STEM studies by exposing them to real-world applications, advanced concepts, and mentoring opportunities.

A3.1 Allies for Your Future

Attraction *Immersion*

- **Country:** Argentina
- **University:** Instituto Tecnológico de Buenos Aires ITBA
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Talk

Description

This activity is designed to provide high school students with an immersive experience into the professional world through direct contact with graduates in their workplaces. During these visits, students have the opportunity to first-hand understand the career paths of professionals in different fields, gaining insights into the challenges and lessons of their careers.

In the most recent edition, participants visited two workplaces. First, Diego Roitman, the creator of the brand ""This is Feliz Navidad"" and a graduate in Business Management, welcomed students to his store, where he shared his experience in brand creation and development. Later, in a second visit, Federico Spitzner, Director of Fulfilment Inventory at Mercado Libre and an Industrial Engineering graduate, hosted them at the company's offices to discuss his professional journey and role within the organization.

This initiative allows students to explore different perspectives of the working world and broaden their understanding of available career opportunities.

Website: https://www.linkedin.com/posts/instituto-tecnol%C3%B3gico-de-buenos-aires_aliados-de-tu-futuro-en-globant-visitamos-activity-7254513987847933955-fk1A/?originalSubdomain=es

A3.2 Credit Transferable Courses

Attraction *Immersion*

- **Country:** Chile
- **University:** Universidad de Chile
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Competition

Description

The University of Chile offers first-year Common Plan courses to secondary school students, allowing them to take these courses during the summer. If they pass and later enrol at the university, they can receive credit for these completed courses.

Website: https://www.edv.uchile.cl/inicio/cursos-convalidables/

A3.3 Destination ITBA

Attraction *Immersion*

- **Country:** Argentina
- **University:** Instituto Tecnológico de Buenos Aires ITBA
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Communication initiatives, Talk, Workshops

Description

In this event, ITBA opens its doors to students from across the country who wish to learn about the university and its academic offerings. Organized during the winter break period, Destination ITBA welcomed 200 guests who participated in talks with academic directors, vocational guidance sessions, campus tours, laboratory visits, and various activities.

Website: https://www.itba.edu.ar/destino-itba/

A3.4 EdV Talent School

Attraction *Immersion*

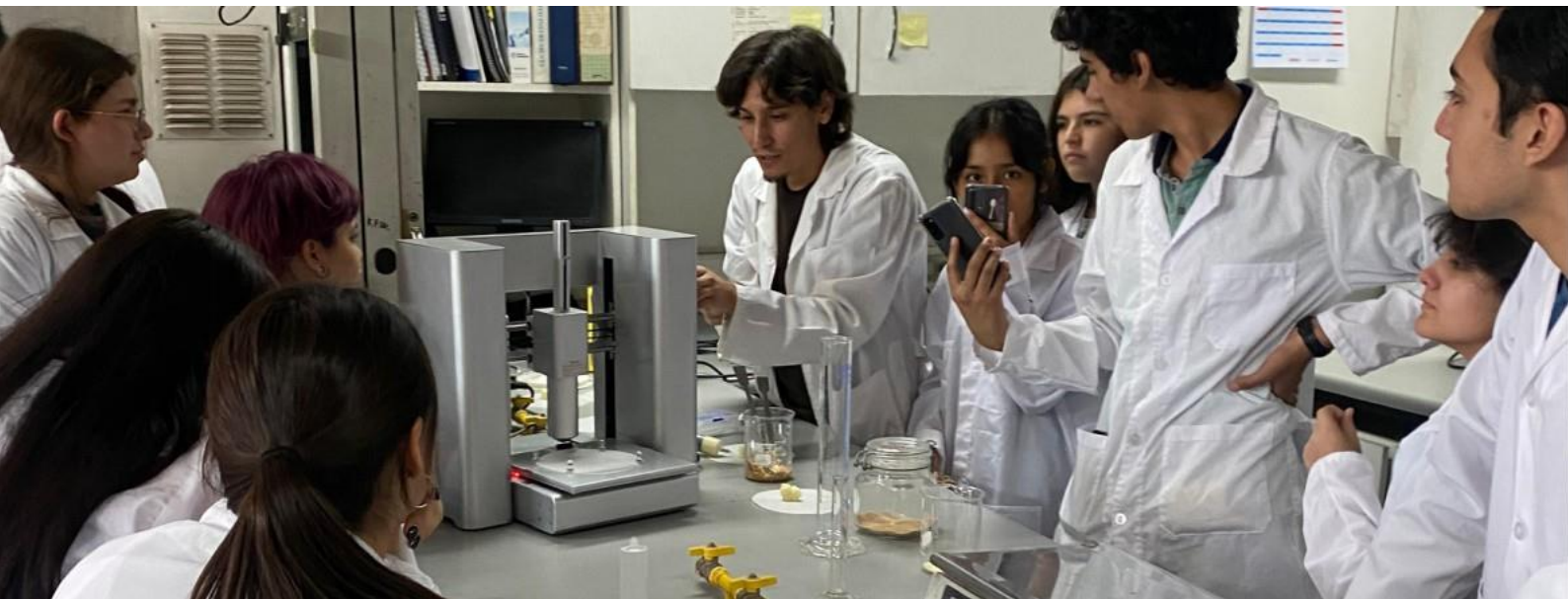
- **Country:** Chile
- **University:** Universidad de Chile
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Competition

Description

The EdV Talent School at the University of Chile is an initiative that gives elementary and high school students the opportunity to take university courses during the winter period. This program, held over five consecutive Saturdays, aims to provide students with a university experience in specific academic areas, allowing them to engage in practical learning through interactive workshops and activities.

The first edition of the EdV Talent School took place in 2024, with 750 students participating, making it an excellent opportunity to introduce young people to the university world in an immersive way. Activities are conducted at the University of Chile, with promotion through social media, mass emails, national advertising, and other channels.

Website: https://ingenieria.uchile.cl/noticias/219014/comenzo-escuela-de-talentos-edv-750-escolares-conoceran-la-uchile?utm_source=chatgpt.com



A3.5 Hackathons

Attraction *Immersion*

- **Country:** Colombia
- **University:** Pontificia Universidad Javeriana
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Competition

Description

Hackathons is an initiative for high school students. This program consists of in-person competitions where participants engage with real companies to identify problems and develop innovative and practical solutions. The goal of these hackathons is to involve young learners in skill development, teamwork, and problem-solving through the creation of creative solutions in a competitive environment. This event is held once a year at the university's facilities and provides an excellent opportunity for students to connect with innovation and the professional world.

Website: https://ingenieria.javeriana.edu.co/hackathon

A3.6 ITBA Challenge

Attraction *Immersion*

- **Country:** Argentina
- **University:** Instituto Tecnológico de Buenos Aires ITBA
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Competition

Description

The ITBA Challenge is a competition where students present brief essays on topics related to the fields of business and technology, following a specific methodology. The selected essays are presented and debated with experts and other young participants during special sessions. The initiative aims to encourage young people to contribute new, challenging, innovative, and critical perspectives. The goal is to understand their vision as protagonists of today's world and the businesses of the future. Both the submitted works and the final evaluation process were overseen by a rigorous jury composed of ITBA faculty members and authorities. Outstanding students are recognized with awards and scholarships to study at the university.

Website: https://www.itba.edu.ar/desafio-itba-en-negocios/

A3.7 ITBA Future Day

Attraction *Immersion*

- **Country:** Argentina
- **University:** Instituto Tecnológico de Buenos Aires ITBA
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Communication initiatives

Description

At ITBA Future Day, ITBA opens its doors to the community and welcomes 1,200 guests. Over the course of two full days, interactive experiences, talks with academic directors, student and faculty projects, participatory activities, games, and impactful research presentations are offered. This event provides an opportunity for high school seniors to explore study options in a dynamic and interactive way. Participants can play, conduct and observe experiments, watch demonstrations, and attend informational talks to learn about the characteristics and career opportunities of each academic program.

Website: https://www.itba.edu.ar/future-day/

A3.8 International Mathematical Modelling Challenge (IM²C)

Attraction *Immersion*

- **Country:** Chile
- **University:** Universidad de Chile
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Competition

Description

The International Mathematical Modelling Challenge (IM²C) is an international competition aimed at developing mathematical modelling skills among high school students. Participants work in teams to solve real-world problems using mathematical concepts and modelling techniques, fostering critical thinking, creativity, and teamwork.

This competition takes place annually, both in-person and online. Student teams must collaboratively tackle an authentic mathematical modelling problem to find a solution.

IM²C is held every year and is open to students worldwide, encouraging international participation. Promotional materials include brochures distributed to schools, social media posts, and a website providing details on how to participate.

Website: https://www.immc.cl/

A3.9 Junior Summer School (Ages 12-14)

Attraction *Immersion*

- **Country:** Colombia
- **University:** Pontificia Universidad Javeriana
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Workshops, Courses

Description

The Junior Summer School is an initiative for students aged 12 to 14. This program creates a space where young learners can develop problem-solving skills by applying knowledge from different fields of engineering to practical challenges that test their creativity. Additionally, it aims to strengthen skills such as oral communication, learning ability, teamwork, problem-solving, creativity, and social skills. Designed as a talent-attraction and engagement program, this is a paid course held once a year during the mid-year vacation period at the university's facilities.

Website: https://ingenieria.javeriana.edu.co/escuela-junior

A3.10 Kids Summer School (Ages 7-11)

Attraction *Immersion*

- **Country:** Colombia
- **University:** Pontificia Universidad Javeriana
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Primary School
- **Type of Activity:** Workshops, Courses

Description

The Kids Summer School is a program for students aged 7 to 11. Its objective is to create an environment where children can learn to solve problems by applying knowledge from various engineering fields through hands-on challenges that stimulate their creativity. The program also focuses on strengthening oral communication, learning ability, teamwork, problem-solving, and social skills. This is a paid course offered once a year during the mid-year vacation period and takes place at the university's facilities.

Website: https://ingenieria.javeriana.edu.co/escuela-kids

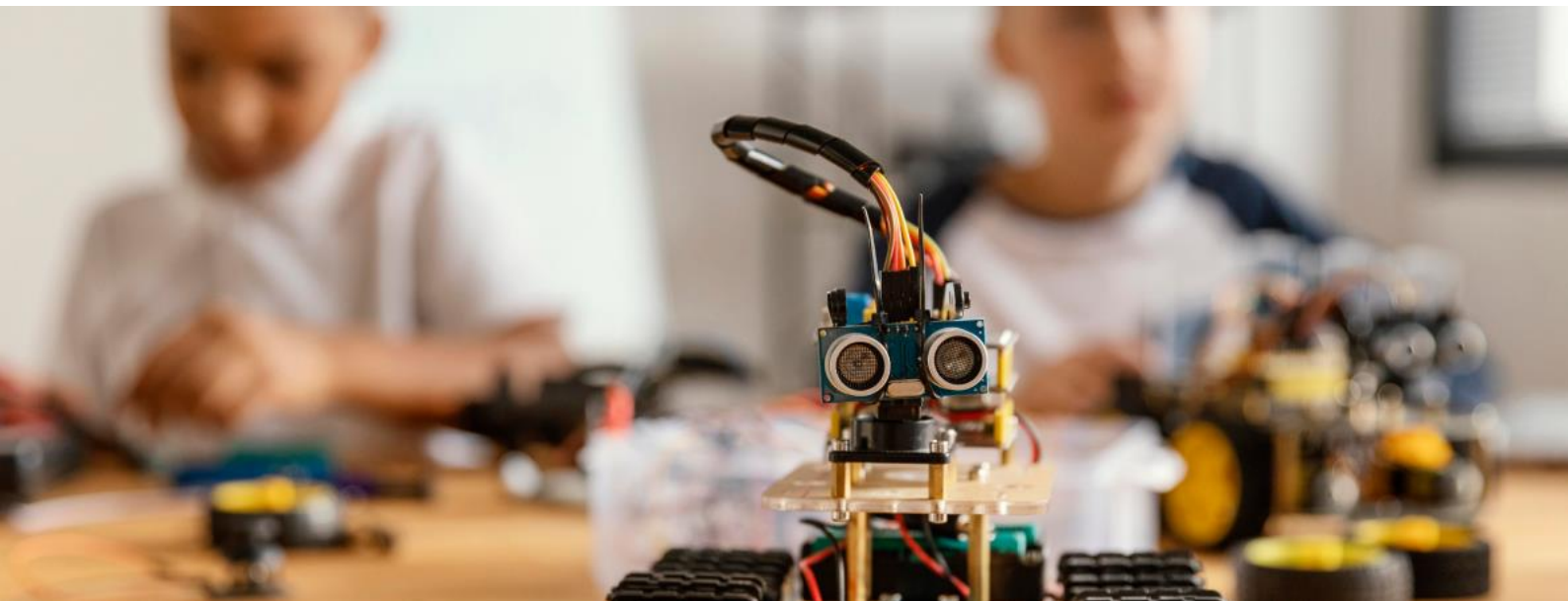
A3.11 Living Lab

Attraction *Immersion*

- **Country:** Argentina
- **University:** Instituto Tecnológico de Buenos Aires ITBA
- **Effort:** Medium
- **Underrepresented target group:** Females
- **Target audience:** Secondary School
- **Type of Activity:** Workshops

Description

This experience consists of a set of practical activities designed to bring high school students closer to the academic and professional world. It is organized as part of a program implemented in Buenos Aires schools, where students must complete a required number of hours throughout the year. The objective is to provide students with an opportunity to learn about the different engineering disciplines offered at ITBA through introductory talks and hands-on activities, enabling them to make an informed career decision based on a deeper understanding of each specialization.



A3.12 Mathematical Practice Program

Attraction *Immersion*

- **Country:** Chile
- **University:** Pontificia Universidad Católica de Chile (UC Chile)
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Study Program

Description

Mathematical Practice Program (PEM) consists of in-person sessions held during the second semester of the school year, presenting M2 exercises related to algebra and university-level calculus. These are two of the courses with the highest failure rates in the first semester of Engineering at UC. The program is aimed at 12th-grade students with grades equal to or higher than 6.3 (on a 7-point scale) and attending publicly funded schools. The goal is to develop self-efficacy in mathematical reasoning, enabling students to achieve a university admission test score above the cut-off for entry into Engineering.

A3.13 Pro Girls FCFM

Attraction *Immersion*

- **Country:** Chile
- **University:** Universidad de Chile
- **Effort:** High
- **Underrepresented target group:** Females
- **Target audience:** Secondary School
- **Type of Activity:** Study Program

Description

Pro Girls FCFM is a Chilean organization dedicated to empowering girls and adolescents aged 7 to 17 through programming and technology education, aiming to promote gender equality in STEM fields (Science, Technology, Engineering, and Mathematics). Its mission is to inspire scientific and technological vocations in young women, challenging stereotypes and promoting inclusion from an early age.

Since its founding in 2016, Pro Girls has worked to eliminate barriers to technology access for girls and adolescents by offering programming courses and organizing educational events in both in-person and virtual formats. Although the exact number of courses is not specified, the organization impacts over 1,800 enrolled girls each year. The program is primarily promoted through its website, social media, lectures, visits, and other channels, engaging professionals and university students in teaching. Additionally, activities take place not only at the University of Chile but also in various locations across the country.

Website: https://ninaspro.cl/#/

A3.14 Rolando Chuaqui Talent Development Academy

Attraction *Immersion*

- **Country:** Chile
- **University:** Pontificia Universidad Católica de Chile (UC Chile)
- **Effort:** High
- **Underrepresented target group:** Students with low socioeconomic level
- **Target audience:** Secondary School
- **Type of Activity:** Study Program

Description

Rolando Chuaqui Talent Development Academy is an inclusive educational space designed to nurture talent and enrich the academic journeys of children and young people. Using active methodologies, the academy promotes meaningful learning, allowing students to apply their knowledge in real-world contexts. It fosters connections among students from diverse backgrounds in an environment of equity, tolerance, and respect. The academy offers annual programs and summer courses, supporting students from the final years of primary education through high school. Those who complete the full program may gain special admission opportunities to UC degree programs.

Website: https://academiadetalentos.uc.cl/programas/penta-uc/

A3.15 Saturday Research Academy

Attraction *Immersion*

- **Country:** Dominican Republic
- **University:** Pontificia Universidad Católica Madre y Maestra (PUCMM)
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Workshops, Courses

Description

The Saturday Research Academy is an academic program designed for students in their last years of secondary school, aiming to engage them in a university-level research experience in STEM and civil engineering topics. Focused on disaster risk management, the course allows students to apply the scientific method and develop skills to analyse, evaluate, and create solutions for natural phenomena such as earthquakes, tsunamis, hurricanes, and landslides from both geological and social perspectives. This program takes place at the Santo Domingo campus and is promoted through social media, mass emails, and school visits.

Website:
https://drive.google.com/file/d/10tXaaJsA_SlnGdMC4kxDyPcVP7BYjxWt/view?usp=sharing

A3.16 Schoolab

Attraction *Immersion*

- **Country:** Spain
- **University:** Universitat Politècnica de Catalunya · BarcelonaTech (UPC)
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Workshops, Talk

Description

Schoolab is a program launched in 2007 as an initiative by Barcelona City Council, in collaboration with various research centers. It aims to offer free scientific activities for secondary school students, enabling them to explore the diverse research fields and laboratories in Catalonia (Spain).

From October to June (during the academic school year), Schoolab organizes over 100 activities that provide students with opportunities to engage directly with the scientific community. These activities include:

1. Workshops: Hands-on, interactive sessions where students can participate in experiments and learn about various scientific disciplines.
2. Talks: Presentations by researchers and professionals who explain their work and research areas.
3. Visits: Guided tours of research laboratories, university research groups, hospitals, and companies, allowing students to see the real-world applications of scientific research.

This initiative aims to spark curiosity in students and give them a first-hand look at the wide variety of stufy opportunities available in the Catalan region.

Website: https://www.upc.edu/es/futuro-estudiantado/noticias/escolab

A3.17 Senior Summer School (Ages 15-18)

Attraction *Immersion*

- **Country:** Colombia
- **University:** Pontificia Universidad Javeriana
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Workshops, Courses

Description

The Senior Summer School is an initiative designed for students aged 15 to 18. This program provides a space where young learners can solve real-world problems using knowledge from different branches of engineering through practical challenges that enhance their ingenuity. It also aims to reinforce skills such as oral communication, learning ability, teamwork, problem-solving, creativity, and social skills. This is a paid course held once a year during the mid-year vacation period at the university's facilities.

Website: https://ingenieria.javeriana.edu.co/escuela-senior

A3.18 Social Plan VEX robotics

Attraction *Immersion*

- **Country:** Spain
- **University:** Universitat Politècnica de Catalunya · BarcelonaTech (UPC)
- **Effort:** High
- **Underrepresented target group:** Students with low socioeconomic level
- **Target audience:** Secondary School
- **Type of Activity:** Support Groups, Courses

Description

Social Plan VEX Robotics is an initiative aimed at introducing secondary school students at risk of social exclusion to the world of robotics. The plan offers support and mentoring to these students, who participate in VEX robotics competitions. It aims to raise awareness and attract students to the field of STEM, particularly robotics, by providing resources and guidance.

The program partners with social organizations, secondary schools, and training centers, providing materials and mentoring by university students. These mentors guide the students throughout the program, preparing them for the VEX competition held at the university. The goal is to empower students at risk of exclusion by giving them the opportunity to engage in hands-on, team-based learning, fostering both technical skills and teamwork.

This initiative provides not only technical training but also emotional and social support, offering students a chance to build self-confidence and discover new educational opportunities.

Website: https://eebe.upc.edu/ca/lescola/responsabilitat-social/pla-social-vex

A3.19 Study Program in Civil Engineering and Teaching

Attraction *Immersion*

- **Country:** Sweden
- **University:** Kungliga Tekniska Högskolan (KTH)
- **Effort:** High
- **Underrepresented target group:** Females
- **Target audience:** Secondary School
- **Type of Activity:** Study Program

Description

Study Program in Civil Engineer and Teacher is a collaborative educational program between KTH (Royal Institute of Technology) and Stockholm University in Sweden. The program is designed to address the need for highly skilled communicative civil engineers and technically knowledgeable teachers, aiming to increase the attractiveness of engineering education for a wider target group, particularly women. Additionally, the program aims to improve the quality of school education by preparing high-profile teachers in natural sciences.

This unique five-year program leads to both a civil engineering degree and a subject teaching degree. It is highly sought after in the job market, as graduates are equipped to work in both the business and education sectors. The program includes annual intakes of 60-70 students.

The key aspects of the program include:

- Providing a dual education: civil engineering and teacher training, ensuring students gain both technical expertise and teaching skills.
- Offering an interdisciplinary approach with courses from both KTH and Stockholm University, combining engineering education with insights into learning theories and subject didactics.
- Graduates of this program are well-positioned to contribute to both the engineering and educational sectors, meeting society's demand for well-rounded professionals who can bridge the gap between technical and educational expertise.

Website: https://www.kth.se/utbildning/civilingenjor/civing-larare

A3.20 Study Program in Energy and Environment

Attraction *Immersion*

- **Country:** Sweden
- **University:** Kungliga Tekniska Högskolan (KTH)
- **Effort:** High
- **Underrepresented target group:** Females
- **Target audience:** Secondary School
- **Type of Activity:** Study Program

Description

Study Program in Energy and Environment is a program aimed at attracting women to energy-related engineering studies, which are traditionally male-dominated. This initiative is designed to make energy studies more appealing to a broader target group by integrating social sciences with technical studies. The program also seeks to contribute to gender equality in the energy sector, not only within academic institutions but also in energy companies, public institutions, and local authorities.

The program has a five-year duration and includes an interdisciplinary approach, combining engineering studies with environmental sciences and social sciences. It is specifically targeted at women in secondary school, helping them explore and engage in energy-related fields while promoting gender balance in an otherwise male-dominated sector.

The program's goals include:

- Making energy-related engineering studies more attractive to a diverse audience.
- Achieving gender equality in the energy sector by encouraging more women to pursue these studies and careers.
- Fostering a gender-balanced workforce in energy companies and other related institutions.
- By blending technical education with a social context, the program has successfully attracted more female students to energy studies and later to energy-related jobs, thus contributing to gender equality within the sector.

Website: https://www.kth.se/utbildning/civilingenjor/energimiljo

A3.21 Summer at ULisboa

Attraction *Immersion*

- **Country:** Portugal
- **University:** Instituto Superior Técnico (IST) - ULisboa
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Workshops

Description

The Summer at ULisboa program, launched in 2014 (paused in 2020-21 due to the pandemic), offers middle and high school students hands-on STEM activities aligned with Técnico's bachelor programs. Held over two weeks (one per school level), it provides practical experiences, workshops, games, and visits, offering insight into engineering fields and university life.

Students work in fixed groups on engineering challenges, guided by Técnico student monitors. They also interact with professors and researchers, gaining exposure to academic and professional STEM paths. The program helps students make informed decisions about their future studies.

The full week costs €120. The program has been highly successful, with 25-30% of Técnico's 2023/24 bachelor's students having previously participated.

While enrolment is centrally managed, each school oversees local implementation. At Técnico:

- Activity proposals are collected, selected, and structured into a schedule.
- The organizing team (Communication Area) collaborates with scientific departments, research units, and student groups to co-create activities.
- Técnico student monitors are selected through an application and interview process.

Website: https://verao.ulisboa.pt/

Video: https://www.youtube.com/watch?v=He_5x6S_-wU&t=110s&ab_channel=ULisboa

A3.22 Summer School

Attraction *Immersion*

- **Country:** Chile
- **University:** Universidad de Chile
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Primary School, Secondary School
- **Type of Activity:** Study Program

Description

Summer School is an educational program for primary and secondary school students (ages 8-18), offering a series of courses and hands-on activities designed to foster learning and interaction with the university. These courses are taught by academics, professors, and students from the University of Chile, tailored to school students' needs.

The program aims to engage students in a university environment and promote academic learning through practical and formative experiences. Over 70 courses are offered over a period of 1.5 months, each lasting an average of one week. The Summer School is conducted in person at various University of Chile campuses and is promoted through social media, mass emails, national advertising, and other channels. It is an excellent opportunity for school students to explore higher education academic offerings in an accessible format.

Website: https://www.edv.uchile.cl/

A4. Admission Access

Initiatives that facilitate the admission and inclusion of underrepresented groups into formal STEM higher education programs. These are activities aimed at high school students interested in pursuing STEM careers. Participation in these programs and initiatives could be a determining factor in the allocation of spots in STEM fields at universities.

A4.1 Admission Pathways Complementary to the Standardized Test

Attraction *Admission Access*

- **Country:** Chile
- **University:** Pontificia Universidad Católica de Chile (UC Chile)
- **Effort:** Medium
- **Underrepresented target group:** Students with low socioeconomic level, Other minorities, Ethnic minorities
- **Target audience:** Secondary School
- **Type of Activity:** Other

Description

Admission Pathways:

- Talent and Inclusion Pathway for students from publicly funded schools
- NACE Pathway for students with STEM talent
- Intercultural Pathway for students belonging to indigenous communities and the Afro-descendant population in northern Chile
- PIANE Pathway for students with disabilities

Website: https://www.ing.uc.cl/programas-de-estudio/admision/admision-pregrado/tipos-admision-pregrado/nace-nueva-admision-para-cientificos-emprendedores/, https://admision.uc.cl/vias-de-admision/talento-e-inclusion/

A4.2 Priority Admission Program for Gender Equity

Attraction *Admission Access*

- **Country:** Chile
- **University:** Universidad de Chile
- **Effort:** Low
- **Underrepresented target group:** Females
- **Target audience:** Secondary School
- **Type of Activity:** Other

Description

The Priority Admission Program for Gender Equity at the University of Chile is designed to reduce gender gaps, particularly in fields such as engineering and other STEM disciplines. This program reserves spots for women who may not meet the standard admission cut-off scores but fulfil the requirements for acceptance. Its main goal is to increase female enrolment in fields where women have historically been underrepresented.

The program takes place once a year during the admission process and is promoted through brochures, talks, school visits, as well as social media and the university's website.

Website: https://uchile.cl/presentacion/asuntos-academicos/pregrado/admision-especial/equidad-de-genero

A4.3 Relationship with School Counselors

Attraction *Admission Access*

- **Country:** Colombia
- **University:** Universidad de los Andes
- **Effort:** Low
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Talk, Workshops

Description

The University of the Andes maintains an active relationship with school counsellors through annual update sessions and workshops, both virtual and in-person. These activities provide counsellors with tailored information about the university's academic offerings, with a focus on STEM careers, as well as available financial aid programs.

The goal is to establish a direct and ongoing communication channel with school counsellors to promote the opportunities the university offers and facilitate student access to these options. Sessions and workshops are held periodically, with participation in educational events organized by both the university and schools.

Website: https://aspirantes.uniandes.edu.co/es/pregrado/servicios-colegios, https://www.youtube.com/watch?v=Ewr8j7qYIwI

A4.4 TEP Scholarships

Attraction *Admission Access*

- **Country:** Dominican Republic
- **University:** Pontificia Universidad Católica Madre y Maestra (PUCMM)
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Courses

Description

The TEP Scholarships are designed to provide technical training opportunities in engineering and technology, allowing access to quality education and promoting professional development. Aimed at high school seniors, these scholarships facilitate enrolment in higher technical programs related to engineering and technology. Applicants must meet academic requirements and complete the admission process. The program is promoted each academic cycle through the university's website, social media, and a national newspaper.

Website: https://www.instagram.com/tep_pucmm/p/CpQ7FHOu_qY/?img_index=1

R. Retention

The ***Retention*** category addresses the critical need to support students throughout their academic journey, particularly those from underrepresented groups in STEM. These initiatives aim to help students develop the skills and resilience needed to succeed in higher education while fostering inclusive and supportive environments.

R1. Advocacy

Initiatives that educate the university community about the challenges faced by underrepresented groups in STEM. These activities aim to promote an inclusive culture where diversity is recognized as a strength. By raising awareness of systemic barriers and biases, these initiatives encourage institutions to adopt more equitable practices and foster environments that celebrate diversity and belonging.

R1.1 Equality Office

Retention *Advocacy*

- **Country:** Sweden
- **University:** Kungliga Tekniska Högskolan (KTH)
- **Effort:** Low
- **Underrepresented target group:** -
- **Target audience:** University, Postgraduates
- **Type of Activity:** Policy making

Description

KTH Equality Office is a central coordinating function at the Royal Institute of Technology (KTH), designed to promote gender equality, diversity, and equal conditions across the university. The office works on two primary missions: first, to actively combat discrimination both as an employer and as an educational institution; and second, to integrate gender equality into regular decision-making processes and work operations within the university. The office facilitates research-based, proactive efforts aimed at creating a more inclusive and equitable environment at KTH, guided by legal requirements and institutional guidelines. The Equality Office's work spans both strategic and practical levels and focuses on fostering gender equality and diversity through an intersectional lens.

Key responsibilities include:

- Ensuring gender equality integration into decision-making forums and university processes.
- Coordinating measures required by the Discrimination Act, including reporting to the Discrimination Ombudsman.
- Collaborating both internally and externally to support KTH's mission of promoting gender equality and diversity.
- Aligning efforts with KTH's broader work environment and sustainability goals.
- The office's work directly contributes to shaping a more inclusive academic culture by addressing disparities and fostering an environment where all individuals can thrive.

Website: https://www.kth.se/en/om/equality/kth-equality-office-1.840276

R1.2 Talks for Admitted Students

Retention *Advocacy*

- **Country:** Colombia
- **University:** Universidad de los Andes
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School, University
- **Type of Activity:** Talk

Description

The Universidad de los Andes organizes talks for admitted students and their families to provide guidance on university life and promote student retention, particularly in STEM programs. These informational talks, offered both in-person and virtually, aim to provide students and their families with key insights into the academic, personal, and social aspects that influence their university experience. They also highlight opportunities available within STEM programs.

These talks are held three times per semester and are coordinated through personalized email invitations and follow-up phone calls.

Website: https://www.instagram.com/iinduniandes/p/DCcHdDxxcOY/?img_index=6

R2. Skill Development

Programs designed to equip students with the academic, technical, and social skills necessary to thrive in STEM studies. These initiatives may involve mentoring, specific skills training, and confidence-building activities that address both technical knowledge and personal growth.

R2.1 Argentine Technology Competition

Retention *Skill Development*

- **Country:** Argentina
- **University:** Instituto Tecnológico de Buenos Aires ITBA
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** Secondary School
- **Type of Activity:** Competition

Description

The Argentine Technology Competition (OATec), organized by ITBA, is an initiative aimed at strengthening the scientific and technological skills of high school students across the country. Through challenges requiring the application of the scientific method, critical thinking, and problem-solving, the competition fosters interest in STEM disciplines and promotes knowledge exchange among students and teachers.

In its eighth edition, OATec had 1,718 students from 240 schools, supported by 405 teachers as mentors. That year's theme was "Technologies in Life Sciences", and participants were evaluated on general knowledge, planning and problem-solving, manual skills, effort efficiency, and presentation skills.

The competition consists of two evaluation phases: an initial virtual stage and a final in-person round at ITBA, where the top-ranked participants compete in a real-world environment. Additionally, OATec awards exclusive scholarships to outstanding students, allowing them to continue their studies at ITBA, reinforcing its commitment to education and technological innovation.

Website: https://www.inet.edu.ar/index.php/competencia-argentina-de-tecnologia-2024-oatec/#:~:text=La%20OATec%20es%20una%20actividad,cient%C3%ADfico%2Dtecnol%C3%B3gicas%20en%20los%20j%C3%B3venes

R2.2 Engineering in the Primary Classroom

Retention *Skill Development*

- **Country:** Spain
- **University:** Universitat Politècnica de Catalunya · BarcelonaTech (UPC)
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Teachers
- **Type of Activity:** Courses

Description

Engineering in the Primary Classroom is a training program designed to bring engineering closer to primary school students by educating their teachers. In Spain, primary school teachers, who are mostly women, typically lack technical training and often do not fully understand what engineering entails. The goal of this initiative is to empower teachers by helping them understand engineering in an accessible way, using relevant societal issues, and presenting a more human side of engineering. The aim is for teachers to become passionate about the subject and to pass that enthusiasm onto their students.

The program consists of a 15-hour summer course, which is legally recognized and beneficial to the participants' professional development. The course begins with an introduction to engineering, differentiating it from science and technology. The teachers will then explore current case studies, presented by university researchers in simple yet rigorous language. On the final day of the course, teachers design a project to implement in their own classrooms, reinforcing what they have learned.

This initiative is held annually and offers primary school teachers a valuable opportunity to incorporate engineering concepts into their teaching.

Website: https://ice.upc.edu/ca/noticies/formacio-destiu-de-primaria

R2.3 ExpoAndes Innovation Week

Retention *Skill Development*

- **Country:** Colombia
- **University:** Universidad de los Andes
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** University
- **Type of Activity:** Fair, Talk

Description

ExpoAndes Innovation Week is an event aimed at undergraduate students and the general public, showcasing STEM student projects and promoting innovation and entrepreneurship through science and technology. The event highlights the work of first-semester engineering students, as well as other university-led projects.

During the event, attendees can visit informational booths, interact with undergraduate programs, participate in themed spaces, and attend talks about the admissions process and financial aid options.

ExpoAndes takes place twice a year, at the end of each semester, and is promoted through social media and newsletters.

Website: https://ingenieria.uniandes.edu.co/es/eventos/semana-innovacion-2023-1/proyectos-expoandes

R2.4 Femtec Career-Building Programme

Retention *Skill Development*

- **Country:** Germany
- **University:** Universität Stuttgart (USTUTT)
- **Effort:** High
- **Underrepresented target group:** Females
- **Target audience:** University
- **Type of Activity:** Workshops, Support Groups, Study Program, Networking Activities

Description

The Femtec Career-Building Programme supports female master's students in STEM by providing hands-on workshops, networking opportunities, and personal development training. As a partner since 2005, the university offers selected participants a 13-month program consisting of three one-week schools, including excursions to partner companies. Through interactive sessions, students strengthen their skills, explore industry trends, and connect with potential employers for internships, thesis projects, or direct career opportunities. By fostering a strong network and offering personalized support, the program empowers women in STEM to build confidence and advance their professional paths.

Website: https://www.student.uni-stuttgart.de/en/after-studies/femtec/

R2.5 Industrial Engineering Seminar

Retention *Skill Development*

- **Country:** Dominican Republic
- **University:** Pontificia Universidad Católica Madre y Maestra (PUCMM)
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** Secondary School, University
- **Type of Activity:** Networking Activities, Panel Discussion

Description

The Industrial Engineering Seminar is a skills development event aimed at high school seniors and undergraduate students in the field of industrial engineering. Its goal is to provide a space for learning and professional development, where students, faculty, and experts can explore current trends, innovations, and challenges in industrial engineering. This seminar seeks to foster technical and leadership skills in the sector. The event is held annually at the PUCMM campus in Santiago and Santo Domingo and is promoted through the university's website and social media.

Website: https://prensa.pucmm.edu.do/academia/2024/03/25/estudiantes-presentan-seminario-de-ingenieria-engloba-un-mundo-de-posibilidades/

R2.6 Pooling Career Development Programme

Retention *Skill Development*

- **Country:** Germany
- **University:** Universität Stuttgart (USTUTT)
- **Effort:** Low
- **Underrepresented target group:** Females
- **Target audience:** Postgraduates
- **Type of Activity:** Support Groups, Workshops, Networking Activities, Panel Discussion

Description

The Pooling Postdoc Career Development Programme supports women in the early stages of their academic careers, particularly in STEM fields. Designed to provide tailored assistance, the program addresses individual needs, including those of international researchers, women with caregiving responsibilities, and those from diverse backgrounds. Through workshops, training sessions, and networking opportunities, participants receive ongoing support for as long as needed until they reach their next career step, fostering professional growth and advancement in academia.

Website: https://www.uni-stuttgart.de/en/university/organization/management/staff-positions/gender-equality-office/pooling/

R2.7 Técnico Career Center

Retention *Skill Development*

- **Country:** Portugal
- **University:** Instituto Superior Técnico (IST) - ULisboa
- **Effort:** Medium
- **Underrepresented target group:** -
- **Target audience:** University, Postgraduates
- **Type of Activity:** Workshops, Support Groups, Networking Activities

Description

Técnico Career Center, established in 2010, prepares students for the professional world by developing skills, expanding networks, and increasing job market awareness. It offers activities throughout the year to support students' transition to their careers. The center focuses on three key areas:

Skill Development
- Career Training Workshops: Led by industry professionals, covering CV building, LinkedIn, interviews, and communication.
- Internships: Summer opportunities for Técnico students through a dedicated job bank.

Job Market Awareness
- Alumni Talks: Informal events where students connect with alumni to explore career paths in fields like entrepreneurship and consulting.
- Alumni Mentoring Program: A year-long mentorship program matching students with alumni for career guidance.
- Company Sessions: Meetups and presentations providing insights into corporate culture and recruitment.

Entrepreneurship & Innovation
- European Innovation Academy: A global program where Técnico sponsors 11 students annually.
- E.Awards@Técnico: Recognizing top student projects in innovation and entrepreneurship.
- TecInnov Competition: Supporting academic members in developing innovative ideas.

Website: https://careercenter.tecnico.ulisboa.pt/en/

R2.8 University Mathematics Readiness and Integration Program

Retention *Skill Development*

- **Country:** Chile
- **University:** Pontificia Universidad Católica de Chile (UC Chile)
- **Effort:** High
- **Underrepresented target group:** -
- **Target audience:** University
- **Type of Activity:** Study Program, Workshops, Courses

Description

University Mathematics Readiness and Integration Program (PIMU) offers levelling courses for students who take one of the following diagnostic tests:

- Precalculus Test (PC)
- Introduction to Mathematics Test (IM)
- Mathematical Competencies Test (CM).

These courses reinforce essential knowledge and prepare students for university-level mathematics courses. Based on test results, different levels of support are offered. The program is designed for first-year university students.

Website: https://pimu.mat.uc.cl/

R3. Support

Support initiatives provide emotional, psychological, and structural assistance to students through personalized counseling, safe spaces for raising concerns, and programs that address discrimination, inequity, or exclusion in academia. These efforts aim to ensure students can focus on their studies and achieve their academic goals in a nurturing environment.

R3.1 Mentoring - M2m Program

Retention *Support*

- **Country:** Spain
- **University:** Universitat Politècnica de Catalunya · BarcelonaTech (UPC)
- **Effort:** Medium
- **Underrepresented target group:** Females
- **Target audience:** University, Postgraduates
- **Type of Activity:** Support Groups

Description

The M2m Mentoring Program is an initiative coordinated by the Polytechnic Women's Club, designed to provide support and guidance to female students and recent graduates (with a maximum of 4 years of experience) from UPC. The program focuses on personal, academic, and professional development, with the goal of breaking through existing barriers, such as the glass ceiling women often face in the workplace, while boosting their self-confidence and empowering them for future challenges.

Each M2m pair consists of:

- M (Mentor): An experienced woman with an academic or professional career in the fields of knowledge of UPC, who shares her expertise and guidance.
- m (Mentee): A female student in the final stages of her bachelor's degree, master's degree, or industrial doctorate, or a recent graduate with up to 4 years of experience.

The mentoring relationship focuses on overcoming challenges specific to women in academia and the workforce, and fostering the development of a network of professional support.

Website: https://alumni.upc.edu/ca/carreres-professionals/mentoria

R3.2 President's Equality and Diversity Prize

Retention *Support*

- **Country:** Sweden
- **University:** Kungliga Tekniska Högskolan (KTH)
- **Effort:** Low
- **Underrepresented target group:** -
- **Target audience:** University, Postgraduates
- **Type of Activity:** Communication initiatives

Description

President's Equality and Diversity Prize is an annual award to both students and staff who have made outstanding contributions towards fostering equality and diversity within the university. The prize aims to increase visibility for the ongoing efforts in achieving gender equality and diversity at KTH, highlighting the positive actions taken by individuals to promote these values.

Award Categories:

- Staff Award: SEK 10,000 prize for KTH staff who have contributed to promoting gender equality or diversity within the work environment, education, or research at KTH.
- Student Award: SEK 10,000 prize for KTH students who have shown outstanding efforts in advancing gender equality and/or diversity within KTH or the student union (THS).

The prize money for staff can be used for business trips or improvements in the subject area.

The award is given each year in December to celebrate the achievements of individuals who have made a tangible impact on equality and diversity at the university.

Website: https://intra.kth.se/en/aktuellt/nyheter/insatser-for-doktorander-belonades-med-jml-pris-1.1379177

R3.3 Psychological Guidance

Retention *Support*

- **Country:** Spain
- **University:** Universitat Politècnica de Catalunya · BarcelonaTech (UPC)
- **Effort:** Low
- **Underrepresented target group:** -
- **Target audience:** Other
- **Type of Activity:** Support Groups

Description

UPC Psychological Guidance is a service that has been offered since 2019 to promote personal stability and adaptation to the university world, both academically and professionally. The service is available to students (undergraduate, master's, and doctoral) and university staff who are not undergoing any psychological or psychiatric treatment.

The program includes a maximum of 4 sessions with specialized psychologists, aimed at helping individuals understand, reflect on, and adapt to new realities in academic, personal, and professional contexts. The goal is to promote personal well-being and support the transition into university life or work.

This service does not provide long-term psychological or psychiatric treatment. If necessary, the psychologists may refer individuals to a more appropriate specialist based on their needs.

Website: https://inclusio.upc.edu/ca/serveis/benestar-psicologic/servei-dorientacio-psicologica

R3.4 StartScience

Retention *Support*

- **Country:** Germany
- **University:** Universität Stuttgart (USTUTT)
- **Effort:** High
- **Underrepresented target group:** Females
- **Target audience:** University, Postgraduates
- **Type of Activity:** Support Groups, Networking Activities, Panel Discussion

Description

StartScience is a mentoring program designed to empower female students interested in pursuing a doctorate. Over the course of one year, participants are paired with female doctoral students in related fields, offering first-hand insights into the doctoral journey. Monthly meetups, two workshops per semester, and additional peer-to-peer mentoring provide a strong support network. The program also includes information sessions on doctoral studies, networking events with female role models, and workshops to help students explore career paths in science. The goal is to inspire and equip female students with the tools needed for a successful academic career.

Website: https://www.student.uni-stuttgart.de/en/after-studies/startscience/

R3.5 Wie Is All of Us

Retention *Support*

- **Country:** Argentina
- **University:** Instituto Tecnológico de Buenos Aires ITBA
- **Effort:** Medium
- **Underrepresented target group:** Females
- **Target audience:** University
- **Type of Activity:** Talk

Description

Wie Somos Todas is an in-person discussion session designed for female students to share their perspectives and experiences regarding the underrepresentation of women in technology careers, regardless of their academic specialization. The goal is to establish an open and constructive dialogue with all ITBA female students enrolled in various branches of engineering. The discussion focuses on the low presence of women in tech fields and aims to identify key factors that can encourage more young women to explore and pursue technological careers.

Website: https://www.itba.edu.ar/blog/divi_mega_pro/iniciativa-wie/

R3.6 Womengineer Day

Retention *Support*

- **Country:** Sweden
- **University:** Kungliga Tekniska Högskolan (KTH)
- **Effort:** Low
- **Underrepresented target group:** Females
- **Target audience:** University, Postgraduates
- **Type of Activity:** Communication initiatives, Networking Activities

Description

Womengineer Day is an annual networking event organized by university students in cooperation with tech companies. It aims to foster a gender-equal environment within the tech industry by connecting fresh graduates and students with senior female engineers. The event serves as an arena for participants to meet female representatives from various tech industries, learn from their success stories, and gain valuable insights into career pathways. It also provides networking opportunities and the chance to connect with potential employers in the tech sector.

Key Features:

- Networking opportunities with senior female engineers and industry professionals.
- Insightful discussions and success stories shared by female role models in the tech field.
- A platform for students to connect with potential employers and explore career opportunities.
- Held annually in the autumn, attracting students from KTH and other universities.
- The event focuses on supporting the retention of women in the tech industry by showcasing successful female engineers and encouraging more women to pursue and stay in technology careers.

Basic Guides

The ***Basic Guides*** provide essential support for facilitators and admissions staff in promoting diversity and inclusion in STEM education. The ***Guide for Activity Facilitation*** offers strategies to design engaging, gender-inclusive outreach activities, while the ***Guide for Student Admission*** focuses on making STEM programs more accessible to underrepresented groups. These guides aim to break stereotypes, foster interest in STEM, and create a more inclusive academic environment.

Basic Guide for Activity Facilitation

Aim

This guide aims to provide basic guidelines for **including the gender perspective in all STEM outreach activities** and early STEM talent development activities.

We understand "STEM outreach activities" as initiatives and actions designed to **encourage and increase the interest of students,** especially in secondary education, in the areas of Science, Technology, Engineering and Mathematics (STEM). These activities seek not only **to inform** about academic and professional opportunities in these fields, but also **to inspire** students to consider careers in STEM through outreach.

These activities may include:

1. **Educational Talks and Workshops:** Presentations in schools or educational centers where STEM careers, their applications and opportunities are explained.
2. **Science and Technology Fair:** Events where universities and organizations showcase innovative projects, experiments, and interactive demonstrations to capture the attention of future students.
3. **University and Laboratory Visits:** Field trips that allow students to experience first-hand the academic and research environments of universities.
4. **STEM Competitions and Olympiads:** Academic competitions in areas such as mathematics, physics, programming, and robotics that motivate students to explore beyond the traditional curriculum.
5. **Mentoring and Guidance Programs:** Initiatives where STEM professionals and advanced students offer advice and guidance to interested students.

On the other hand, we also have initiatives that go beyond the informational and educational, beyond the "promotional", providing tools for the development of academic and **hands-on skills and abilities of underrepresented groups**, for example, through training or mentoring programs. These activities may involve segregated enrolment (offering them only to girls and/or adolescent women), or they may impose participation quotas based on sex and/or gender.

These activities may include:

1. **Camps and Vacation Programs (winter/summer):** Immersive activities that combine the teaching of STEM concepts with practical and experimental activities.
2. **Segregated or mixed, semester or annual educational programs:** Courses and/or workshops that deliver basic competencies or competencies in STEM topics.
3. **Jam-type days:** Training sessions, hackathons or marathons that involve the acquisition of knowledge and tools to face STEM challenges.

Including a gender perspective means paying attention to the similarities and differences in the experiences, interests, expectations, attitudes and behaviours of women and men, and identifying the causes and consequences of gender inequality in order to combat it (AQU Catalunya, 2018). This implies a transformation of stereotypes, that is, a long-term task that must affect people at an early age. In schools, this transformation implies ceasing to transmit gender biases (the so-called hidden curriculum), educating boys and girls in the same values, without assuming that girls should be oriented towards more humanistic and social areas, and boys towards more technological and

leadership areas. The university can collaborate in this transformation work through the promotion and development activities mentioned above.

The guide is designed for people who will implement the activities, that is, the **people who will facilitate change.** This change consists of: (1) breaking gender stereotypes, and (2) transforming the image that society, and specifically pre-university students, have of STEM studies. STEM professions can contribute great value to society, providing knowledge and solutions to help solve current problems not only technological, but also environmental and social. But current STEM stereotypes do not allow us to see this contribution, or to enhance it. Changing stereotypes about the profession can awaken new vocations and promote an increase in the number of girls enrolled, leading to a medium- to long-term transformation not only of studies, but of the solutions proposed by future professionals, benefiting the whole of society.

The main objective of including the gender perspective in these promotional activities is to encourage the transformation of gender stereotypes and improve girls' self-efficiency in STEM contexts, promoting gender diversity in STEM careers at the university level.

An international initiative

The principle that men and women are effectively equal has been established internationally and is overseen by the Commission on the Status of Women (CSW), a commission of the United Nations Economic and Social Council (ECOSOC). The CSW is the principal intergovernmental body concerned with promoting gender equality, building on the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW, 1979). Article 10 of CEDAW highlights the importance of education in promoting equality between men and women: "States Parties shall take all appropriate measures to eliminate discrimination against women in order to ensure to them equal rights with men in the field of education."

Since then, various actions have been taken to promote equality between men and women. Most of them have focused on women, their empowerment and their support through the introduction of quotas. Laws have also been developed to achieve equality, both at national and transnational levels, in education, research, work or social aspects. But change cannot be fully achieved until the whole of society is involved, both men and women (Sandys, 2008). Men and young boys must also be involved in this transformation. This means accepting other male roles (the so-called new masculinities) and seeking male allies to help promote change.

On the other hand, we must think systemically about this social problem, going beyond quotas. It is about creating spaces in which power, understood as the capacity for agency and access to results or benefits, is distributed equitably. And where social recognition systems also value the contribution of invisible groups. For example, within universities, are prizes and awards given equitably to all actors? Are the spaces where new generations are trained named after women in the same proportion as men? Are the names of Prizes and Scholarships also named after women in STEM areas? In short, proposing representation in terms of quotas is a first step, but it is no guarantee that the mentality of those who are being trained considers STEM careers as a space to develop a career, if it is not accompanied by social recognition, with providing greater agency to all actors in an equitable manner.

General aspects to take into account

Gender is a social category and a constitutive element of social relations and structures based on hierarchies imposed by discourses and ideologies that define social norms, stereotypes and roles associated with femininity and masculinity, which produce different structural forms of inequality and injustice, both in terms of recognition and status and in access to socioeconomic resources (AQU Catalunya, 2018).

It is essential to consider as a starting point that all the people involved in promotional activities, from the facilitators to the students, their families and the teachers of these students, are not free from these traditional gender stereotypes, with all the biases and injustices that they entail.

Both activities to promote university studies in the STEM field and actions to develop academic talent and applied STEM skills are a very good opportunity to promote change and ensure that students who enter the university system do so with a renewed point of view in relation to gender equality and the contribution of STEM to society.

The following are the measures to consider to incorporate the gender perspective in STEM outreach activities.

Extent		Description
In the facilitation team		
1	**Use gender-inclusive, non-androgenous, and non-sexist language**	Language (written and oral) used in activities should not discriminate against any particular sex, social gender or gender identity and should not perpetuate gender stereotypes. According to the United Nations, the use of gender-inclusive language is an effective way to promote gender equality and eradicate gender bias. The United Nations guide is recommended in English and Spanish (United Nations, n.d.). It is important to be aware that a change in the way of speaking is not immediate and, therefore, it is expected that facilitators make some mistakes. It is key to show the effort, talk about it during the activity to be carried out and allow yourself some imperfections that will be reduced with time and practice.
2	**Use materials with images and text without gender stereotypes**	Images included in the material we distribute to schools, pupils or on the networks can reinforce or counter gender stereotypes. We have the opportunity to change these stereotypes by looking for images where gender roles are not perpetuated. On the website of the European Institute for Gender Equality (European Institute for Gender Equality, n.d.) Some examples are shown of how to avoid the use of stereotypical images.
3	**Provide female role models**	Contact between pre-university female students and a role model in the STEM field helps motivate them to follow in their footsteps, especially if the contact demonstrates the usefulness of science, technology, engineering and mathematics studies, without overemphasizing the lack of women in the sector (Breda et al., 2023; Sevilla et al., 2023). Therefore, it is highly recommended that one of the facilitators can act as a role model, explaining the profession, recommending strategies for a healthy professional career and demonstrating the contribution to society, directly or indirectly. In the case that no role model in

		the STEM field can be found within the team of facilitators, it is recommended to introduce some role models, perhaps former students of the institution itself or national/international female role models working on cutting-edge topics. Within the group of facilitators, it would be convenient to have cultural and social diversity, to ensure that all participants feel represented and valued.
4	**Taking care of gender roles in the facilitation team**	Often there will not be a single person facilitating an activity, it may be a combination of teachers, professionals and students. It is essential to act as role models in gender equality. Despite the existence of a hierarchy within the team, the treatment between men and women must be equal, respectful and the perpetuation of traditional gender roles must be avoided. For example, leadership should not always fall on men and tasks of emotional support should not fall on women. This is the time to show by example that relationships between men and women can be different.
5	**Present women within the content.**	Both in the bibliography and in the visual and audio-visual material (films, documentaries) female authors must be included in a proportion equal to or greater than 30%.
In the participants		
6	**Create work teams considering that, if there are women, they are not alone and have at least one peer within the group.**	When girls or adolescent women participate in teams, they feel more encouraged and confident when there are more women like them within their own groups. This is because the presence of other women on the team reduces anxiety and improves the perception of belonging and self-efficacy, which are crucial for them to feel valued and safe in their environment. A study reviewed by Amanda L. Irvin (Irvin, 2017) shows that women tend to underestimate their abilities while men tend to overestimate them; having female role models and teammates can counteract this phenomenon and strengthen girls' confidence in their own abilities within collaborative environments.
7	**Taking care of gender roles in students**	Traditional gender roles are present at all levels of society. It is therefore not surprising that these roles appear in activities where students have interactive participation among equals. The facilitating team must detect them and promote a change towards a more equitable distribution of roles. This can be done at different levels, depending on the activity and experience. For example, it may be enough

		to comment on how, in an apparently natural way, the roles have been distributed within a work group and ask the students the reason for this distribution. A step further will involve a rotating distribution of roles, for example, or even one imposed by the facilitator. But it is essential that any action carried out with the students is justified and commented on, giving the students space to reflect and give their opinions in a respectful manner.
8	**Encouraging female students' participation**	The space where the activity takes place must be a safe, inclusive and equitable space. But the STEM field, and especially technology and engineering, is seen as a very masculinised field where girls are not welcome. Therefore, their involvement must be encouraged and valued. It is important to be aware of the different forms of communication that are still differentiated according to gender, where women tend to use more cautious and apparently insecure language ("maybe, I think that, …") while men are more confident and direct in their statements (Merchant, 2012). Both forms are correct and the apparent confidence in a statement should not be automatically related to the veracity of the answer. Girls may need more time to answer a question because they have to break through many stereotypes and internal resistances and insecurities. A good practice is to let them answer in pairs, for example.
9	**Promoting change in male students**	It has already been said that without the complicity of men (and male students) real change will not be achieved. It is important to highlight the benefits that a more egalitarian society can bring to the male students who participate in our activities (Cartier Philanthropy et al., 2019). For example, if we manage to break away from the traditional male role, boys will be able to perform tasks that are more in line with their personality, prioritize more humanitarian values, and enjoy a different way of carrying out the tasks or activities that are proposed to them. Positive masculinity should be promoted, that is, the ability to express emotions and relate in a non-violent way.
10	**Taking care of gender roles in the teaching staff of the secondary school institution**	Often, groups of students are accompanied by teachers from their respective schools. They may or may not be actively involved, but possibly without being aware of it, they will be transmitting gender roles to their students. It is important to pay attention to possible scenarios that go against the values of

		equality and, as far as possible, with education and humour, try to, if not redirect them, at least make them explicit. It can even be a good starting point for the analysis of gender roles among students. In certain activities, it may be appropriate to define in advance the level of participation expected from the accompanying teachers and, if high participation is expected, to transmit to them some basic rules of gender equality.
As representatives of the institution		
11	**Mention the scholarships available for the underrepresented gender**	It is likely that if a field of study is highly masculinized or highly feminized, the university institution has scholarships and grants aimed solely at the less represented gender in order to reverse the situation and achieve gender parity among enrolled students. If this is the case, any promotional activity is a good context to publicize these grants and, if necessary, use it as a starting point for a brief debate on the still existing gender gap.
12	**Describe the work carried out at the university regarding gender equality and diversity**	Many STEM institutions have student associations that fight for equality (feminist associations, for example) and institutional actions such as International Women's Day or the International Day of Women and Girls in Science. In this case, you may want to publicize these events throughout the promotional action so that girls see that they are more than welcome at the institution.
The institution		
13	**Provide training to facilitators**	As mentioned above, all facilitators have their own gender stereotypes and prejudices. In order to act as agents of change, it is essential to be aware of this and have tools and examples for their gradual transformation. In addition, the ability to identify everyday situations where gender biases and prejudices appear in third parties is trained over time and with experience. Training, applied and open to debate and reflection, is key to accompanying facilitators in this process and accelerating it. To encourage participation in this training, it is recommended that the training be accompanied by enabling internal certifications or recognition.
14	**Facilitate the creation of communities of practice among facilitators**	Since the process of awareness-raising and learning is often slow, the possibility of sharing experiences with others can speed up the process. The institution should promote the formation of communities of practice among advocacy facilitators.

15	**Recognize participation to promote the academic career of facilitators**	It is common for many promotional activities, with or without a gender perspective, to be carried out by female university teachers and researchers. It is part of the academic domestic work (Heijstra et al., 2017; Macfarlane & Burg, 2019) and is not usually well recognized within the institution, penalizing the academic career of these women compared to people who focus on the merits currently considered to be excellent, that is, publications and participation in public call projects. It is crucial that the institution values each of the tasks carried out by teachers, without penalizing those that are oriented to the good functioning of the institution itself.
16	**Monitor participation on a gender-segregated basis**	Monitor participation and, to the extent possible, the quality of participation in promotional activities on a gender-segregated basis over the years. This will allow needs to be identified and activities to be redesigned to motivate a more diverse group.
17	**Monitor the follow-up of enrolled students in a gender-segregated manner**	Monitor the follow-up of enrolled students in a gender-segregated manner, especially in the case of scholarships related to girls' STEM vocations. This will allow us to identify needs and design support or accompaniment actions.

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Basic Guide for Student Admission

Aim

This guide aims to provide basic guidelines for including the gender perspective in the admission processes for new students to university studies in the STEM field. To do so, attention must be paid to the existing sex and gender imbalance among the current student body of the institution or university, detecting possible tools to compensate for it and promoting change.

The guide is intended for people who work in a university admissions office. It is in their hands to create a more equitable and inclusive admissions process that recognizes and values the diversity of experiences and perspectives that a diverse student body brings to the university community.

The guidelines proposed here are contextualized in Latin American and European countries, so if they are to be applied to other contexts, they may require some adaptation.

Although the guidelines are intended for admission to undergraduate studies, they can be easily adapted to admission to master's studies.

Since the aim is to cover many different contexts, we will first define what is meant by a university admission process, as well as some general aspects to be taken into account by the admissions team, and then proceed to present the objective guidelines of this document.

University admission process

A **university admission process** is the set of steps and requirements that a university establishes to "select" students who will enter its academic programs in the case of a **competitive process** or that it establishes to "enrol" in the case of a **non-competitive process.** This process occurs in the last year of secondary education or once applicants for tertiary education have completed their secondary studies.

The length of university admissions processes varies depending on the country, institution, and type of process. However, on average, these processes usually last from **several months to a full year.** Below is a general average of the stages of a university admissions process:

Preparation and Requirements (6 months to 1 year before application)

- **Previous studies:** During the last year of high school, the student prepares for admission exams or to meet requirements (such as personal essays, letters of recommendation or portfolios).
- **Standardized tests:** In countries with entrance exams such as the SAT in the United States or the PAES in Chile, students usually take these exams during the year prior to their application.

Application Period (1 to 3 months)

- This is the period in which universities open their platforms to receive applications.
- During this time, candidates submit their applications, attach documents, and pay admission fees, if required.

Evaluation of Applications and Results (1 to 6 months)

- Once the application process is closed, universities review the applications. This process can be quick at institutions with automated systems or take longer if applications require interviews, essay or portfolio reviews.

Enrolment Period (2 weeks to 2 months)

- Once admitted, candidates have a period to **enrol,** which can last from **2 weeks to 2 months** depending on the university.
- If the student does not enrol within the established deadline, the place is offered to someone on a waiting list, which extends the process a little further.

In summary, the admission process, from preparation to enrolment, can take between **6 months and a year,** depending on the country and the educational system.

These processes vary by institution and country, but generally include the following elements when it comes to **competitive processes or those that seek to "select" students:**

1. **Academic requirements:** Universities often require a minimum level of academic performance, such as a grade point average or specific scores on national exams (such as the PSU or PAES in Chile, or the SAT in the US).
2. **Admission exams:** Some universities administer specific exams that assess knowledge in key areas such as mathematics, science, language or logical reasoning skills.
3. **Online application:** Applicants must fill out online forms where they provide personal and academic information and the programs to which they wish to apply.
4. **Documentation:** Universities request the submission of documents that may include certificates of studies, letters of recommendation, personal essays or portfolios, depending on the program.
5. **Interviews:** In some cases, personal interviews are conducted to assess the applicant's motivations, interests and skills.
6. **Special Admission:** There are alternative admission routes for special cases, such as high-performance athletes, people with disabilities, or people who have outstanding achievements in other areas.
7. **Results and enrolment:** After the evaluation, the university publishes the results. Admitted students must follow the enrolment process to confirm their place.

This process allows universities to select students who meet their criteria and are a good fit for the academic programs they offer.

There are also countries where **there is no competitive selection process** to enter university, but rather it is only necessary to complete an **application process,** provided that certain basic requirements are met. This is common in countries where access to higher education is more democratized or where university education is considered a universal right. Some examples are:

- Germany: At many public universities, if a student has the **Abitur** (the high school diploma certifying completion of secondary education), they can enrol directly in the university and the course of their choice without going through a competitive process, except in courses with high demand (such as medicine). In such cases, a quota system or selection based on academic merit may apply.

- France: Once a student has obtained the **baccalaureate** (equivalent to a high school diploma), he or she can enrol in most public universities without having to go through a selection process. However, for courses in high demand or at certain *grandes écoles*, there may be a more rigorous selection process.
- Argentina: Public universities, such as the **University of Buenos Aires (UBA),** do not have a selection process for most courses. Students only must register and take an introductory course called **the Common Basic Cycle (CBC).** All people who complete this course can continue their studies without direct competition.
- Uruguay: For most courses at the **University of the Republic (Udelar),** there is no rigorous selection process. Students must enrol in the course of their choice provided they have completed secondary education. However, certain courses may have specific entrance exams, but not a general competitive process.
- Finland: Access to higher education is highly democratized. Although there are entrance exams for some universities, the selection process is often not as competitive as in other countries. For certain programs, it is sufficient to meet the basic requirements and pass an aptitude test, if applicable.

For the purposes of this guide, regardless of competitive or non-competitive admissions, recommendations that avoid gender bias and expand opportunities for all students graduating from secondary education are valid.

From the perspective of applicants, the decision to continue their studies in higher education, in terms of which university courses to aspire to as part of their academic career, conditions their preparation and how they "navigate" this process. Therefore, for universities, support and guidance in vocational decisions, prior to the actual admission process, is key.

General aspects to take into account

Gender is a social category and a constitutive element of social relations and structures based on hierarchies imposed by discourses and ideologies that define social norms, stereotypes and roles associated with femininity and masculinity, which produce different structural forms of inequality and injustice, both in terms of recognition and status and in access to socioeconomic resources (AQU Catalunya, 2018).

The existence of gender stereotypes directly influences the expectations of men and women, conditioning, among other aspects, their professional vocation. This leads to the underrepresentation of women in STEM careers, especially in engineering and technology studies, with a percentage of women that is usually between 10 and 30%. In addition, gender stereotypes have consequences in all areas of the university, evidence of this is the distribution of positions of power, salary differences (caused or not by the care of third parties) and the glass ceiling that women still experience throughout their academic career.

This situation contradicts the principles of equality between men and women, principles shared by all member countries of the United Nations. Indeed, within the United Nations Economic and Social Council, the Commission on the Status of Women (CSW) is the main intergovernmental body dealing with promoting gender equality, based on the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW, 1979). Article 10 of CEDAW highlights the importance of education in promoting equality between men and women: "States Parties shall take all appropriate measures to eliminate discrimination against women in order to ensure them equal rights with men in the field of education."

Therefore, it is the obligation of all member states to offer the same opportunities for access to university studies for men and women. To guarantee this equality of opportunity, action must be

taken from an early age and at different levels (society, family, school). But this does not exempt universities from taking specific actions. In the case of the admissions office, these actions include: (1) monitoring applications, admissions, enrolment and permanence in a segregated manner by sex in order to analyse their evolution over time and to be able to design mitigation strategies if necessary, (2) evaluating applications without any gender bias, conscious or unconscious, (3) designing attraction campaigns that promote equal opportunities, (4) promoting parity in admissions through aid and/or quotas, and (5) influencing the design of public policies that at a systemic level result in eliminating the notion of studies for one gender predominating over another. This review of the system is not only about actions focused on education but also about the recognition and appreciation of professions, trades and disciplines in a society and how those who make up this society are expected to take on challenges.

In the fight for equal opportunities, some countries have included in their legislation precise indications on how to record sex or gender in surveys and/or applications for follow-up and the relevant analysis and design of corrective measures. Each admissions office must consult this legislation and act accordingly. If it does not exist, it is recommended to ask for information based solely on the sex of the applicant and giving two options: male/female. This dichotomous approach is only for statistical purposes in the current context, but in the long term it should shift the understanding of the phenomenon towards a spectrum perspective. Based on this dichotomous approach, it is not recommended to ask about sex and gender because the combination of both answers can provide information that the applicant may not want to provide and, in addition, it can be a source of bias among those in charge of admissions.

Naturally, human beings evaluate and judge others quickly and unconsciously. These judgments are influenced by our cultural context and our past experiences. In fact, in most Latin American and European countries, the stereotype that women perform worse than men in fields of study with a strong mathematical component, such as STEM studies, is still present (Reuben et al., 2014). These unconscious biases affect all our decisions, including those corresponding to the application admission process. It is difficult to eliminate these biases, but we can be aware of them and try to counteract them with admission practices that guarantee a fair evaluation of all candidates, regardless of their sex or gender (Aalto University, 2020). A critical aspect of the admission process is the evaluation of applications and, specifically, the interview. It is in the interview that the admission committee plays a key role. In fact, it has been shown that it is essential that the admission committee is aware of the existence of unconscious gender biases (Régner et al., 2019)and that the interview is structured respecting a common guideline for all candidates (Woo et al., 2023). It is important to remember that a gender-balanced committee does not guarantee an evaluation free of bias and stereotypes.

But biases do not only come from admissions staff, but from the indicators themselves. For example, pre-university grade point averages are influenced by the gender bias of the corresponding teaching staff; in CVs and motivation letters, boys tend to promote themselves more than girls; and recommendation letters are subject to the bias of the author (Woo et al., 2023). In fact, even admissions exams, whether national or institutional, can contain biases in their design (Woo et al., 2023).

The following are the measures to be followed for the incorporation of the gender perspective in the admission process for university studies.

Extent		Description
Student recruitment / Supporting vocational decisions		
1	**Design information and dissemination activities with a gender perspective**	All promotional activities should be designed under the principles of equality between men and women, which implies paying attention to the similarities and differences in the experiences, interests, expectations, attitudes and behaviours of women and men, and identifying the causes and consequences of gender inequality to combat it. The Basic Guide for Activity Facilitators prepared within the framework of the ELA4ATTRACT project is recommended.
2	**Ensure that information about admission processes available in digital and/or printed format uses inclusive language and does not contain gender stereotypes in texts, images and videos.**	The web is the gateway for most future students. It is therefore essential to ensure that written language does not discriminate against any sex, social gender or gender identity and does not perpetuate gender stereotypes. The United Nations guide is recommended in English and Spanish (United Nations, n.d.). Furthermore, images that appear on the web can reinforce or counter gender stereotypes. We have the opportunity to change these stereotypes by looking for images where gender roles are not perpetuated. On the website of the European Institute for Gender Equality(European Institute for Gender Equality, n.d.) Some examples are shown of how to avoid the use of stereotypical images.
3	**Design communication and dissemination pieces such as social media posts, videos, reels, etc. with a gender perspective**	Promotional videos are a great opportunity to change stereotypes about masculinized studies, such as engineering. It is time to include girls as student role models and to make visible the contribution of engineering to humanity, especially how it can improve people's quality of life and contribute to the environment. The language used in these videos should be inclusive, not sexist or androcentric.
4	**Make visible available scholarships, special quotas, segregated admission routes, etc. for the less represented gender.**	It is likely that if a field of study is highly masculinized or highly feminized, the university institution has scholarships and grants aimed solely at the less represented gender to reverse the situation and achieve gender parity among enrolled students. If this is the case, the website from which admission applications are collected must publicize these grants. Dissemination channels such as social networks and participation in face-to-face events such as fairs

		or Expos should also make these possibilities visible.
Processing the application		
5	**Ensure that the information and instructions during the online application and/or registration processes do not express gender stereotypes.**	Design wireframes or prototypes with the user experience that web developers should produce so that the online process is free of gender bias. For example, in the first and last name fields, do not mention that the first surname must be the fathers. For example, add fields for applicants to indicate how they prefer to be called (He/She/They).
Review of applications		
6	**Analyze applications holistically and unbiasedly**	Since even the university entrance exam (whether national or from the institution itself) is not free from bias, it is recommended to analyse applications for admission from a holistic perspective, including multiple instruments: academic performance, the curriculum vitae with extracurricular activities and personal aspects, the motivation letter, letters of recommendation and, if possible, a personalized interview. In this analysis, one must be aware of the possible effects of gender on the candidate's experiences and opportunities. In the first phase of the review, corresponding to the minimum eligibility criteria, it is recommended that applications be treated anonymously (without information on the name, photograph or sex of the candidate). In the second phase, which is more qualitative and personalized, the sex of the candidate must be considered in order to have a more realistic view of their experiences and opportunities, but always taking into account one's own biases and following a standardized process that guarantees equal treatment. To ensure a less biased review, it is recommended to follow strategies such as peer review, and to ensure that the committee is made up of people from different backgrounds, genders and even academic areas (but with the appropriate training).
7	**Implement affirmative action measures**	An easy-to-implement and communicate positive action measure is that, when faced with similar candidates, the candidate of the least represented

		sex will be selected to achieve parity between admissions in the medium to long term. There are other, more forceful positive action measures, such as applying quotas to the less represented sex, but this action must be implemented smoothly, with transparency and monitoring its effect over the years.
8	**Designing a standardized interview**	To avoid gender biases, it is important to follow an interview template, with standardized questions for all candidates. If at any time you decide to go off-script, you must be aware that it is a critical moment where gender biases will be present (Woo et al., 2023). At all times during the interview, language should be inclusive, not sexist or androgenic.
From the admissions office (and the management)		
9	**Provide regular training to identify and reduce gender bias**	Those in charge of reviewing applications should participate in courses or workshops to become aware of their own gender biases and, consequently, of the possible gender biases that all those involved in the admission process may have (from pre-university teachers, people who write recommendation letters and the students themselves). Real examples should be used to identify gender biases in all the indicators that make up the admission process.
10	**Provide standardized templates for candidate analysis**	For the analysis of the CV, the motivation letter, the recommendation letters and the interview, it is necessary to have templates to make an equitable analysis between all the candidates. As an example, the templates shown in (Aalto University, 2020)and in are recommended (Woo et al., 2023).
11	**Use data analytics to monitor trends and potential biases throughout the process**	Monitor admissions and rejections by sex to identify trends and design corrective measures. If possible, relate admissions, separated by sex, to their academic performance at the end of their studies. In this way, it will be possible to identify the profile that best adapts to the institution at present, which may reveal gender biases existing throughout the student's experience at the institution. If necessary, report to those in charge of the study plans the possible discrimination of these plans and their penalization of the diversity of the student body.

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