

Conversatorio sobre experiencias en adopción de políticas de equidad de género en instituciones de educación superior

International Leadership Summit
November 25th, 2019
Cartagena de Indias, Colombia



Panelistas

- Terri Scott, rectora del Northern Regional College (Irlanda del Norte).
- Sari Harmoinen, profesora de la Universidad de Oulu (Finlandia).
- Anita Tabacco, profesora del Politécnico de Turín (Italia).

Conversatorio sobre experiencias en adopción de políticas de equidad de género en instituciones de educación superior

Terri Scott

Profesora universitaria en ciencias de la computación.

Directora de la escuela de informática y decana de la Universidad de Ulster.

Fundadora del Centro de Emprendimiento de Irlanda del Norte.

En 2000, la British Computer Society le otorgó el premio “Profesional TI del año”

En 2002 se convirtió en Directora de la agencia gubernamental de Irlanda .

De 2008 a 2014 fue presidenta del Instituto de Tecnología de Irlanda.

En 2014 asumió su cargo actual como Rectora de Northern Regional College (NRC).

Conversatorio sobre experiencias en adopción de políticas de equidad de género en instituciones de educación superior

W-STEM International Leadership Summit Cartagena, Nov 2019

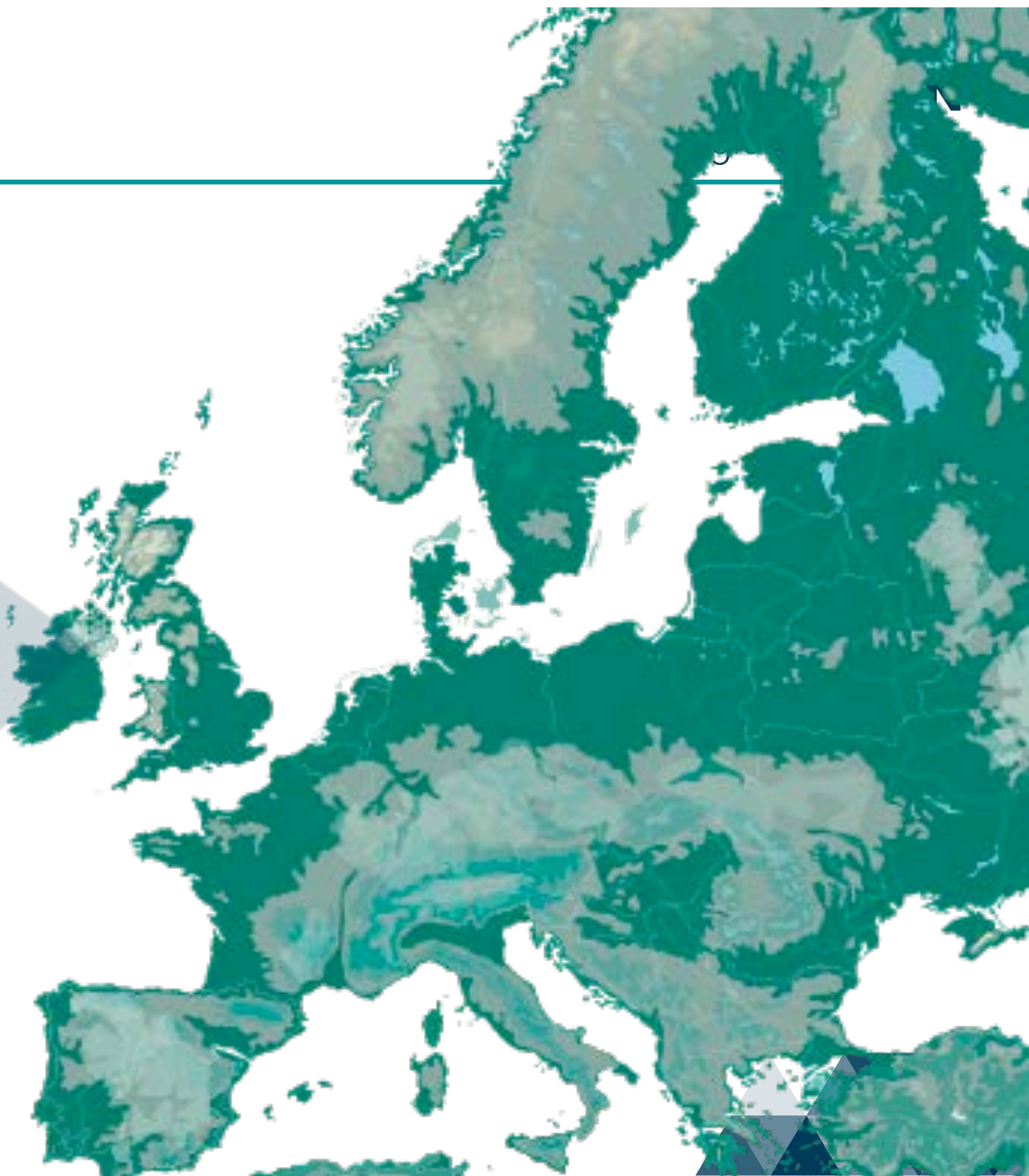
Best practice in government and institutional policy to increase female participation in STEM

Professor Terri Scott
Northern Ireland, UK



Co-funded by the
Erasmus+ Programme
of the European Union







 **56** % of university students in the UK are female


50% of STEM enrolments, including medicine are unevenly distributed by discipline:

 **79.4%** of medicine undergraduates

 **39.9%** of physics undergraduates

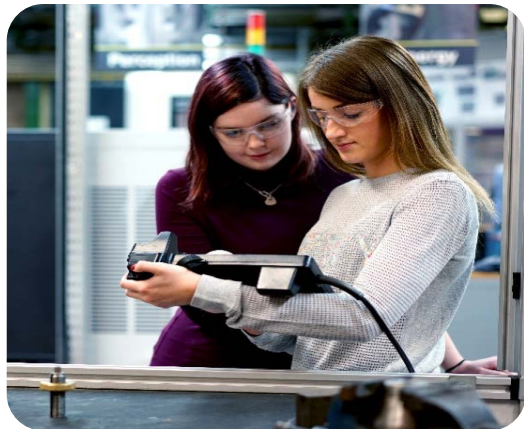
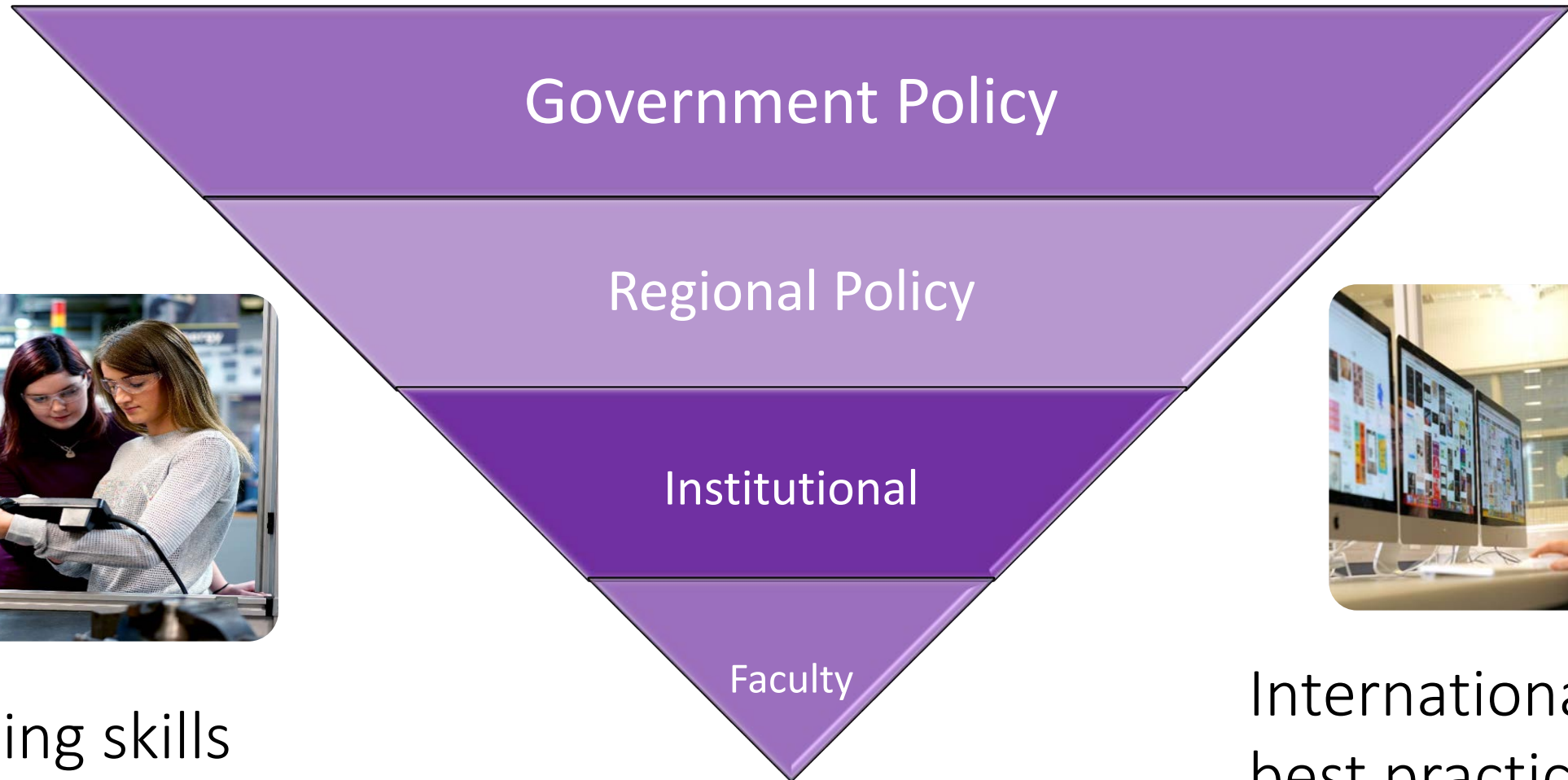
 **61.1%** of biological sciences undergraduates

4% Of Engineering apprentices are female

 **15.8%** of engineering and technology undergraduates

 **17.4%** of computer science undergraduates





Meeting skills requirement



International best practice



Attracting females to STEM careers



Stemettes is an award-winning social enterprise working across the UK & Ireland to inspire and support girls into STEM careers

STEMettes
www.stemettes.org # +



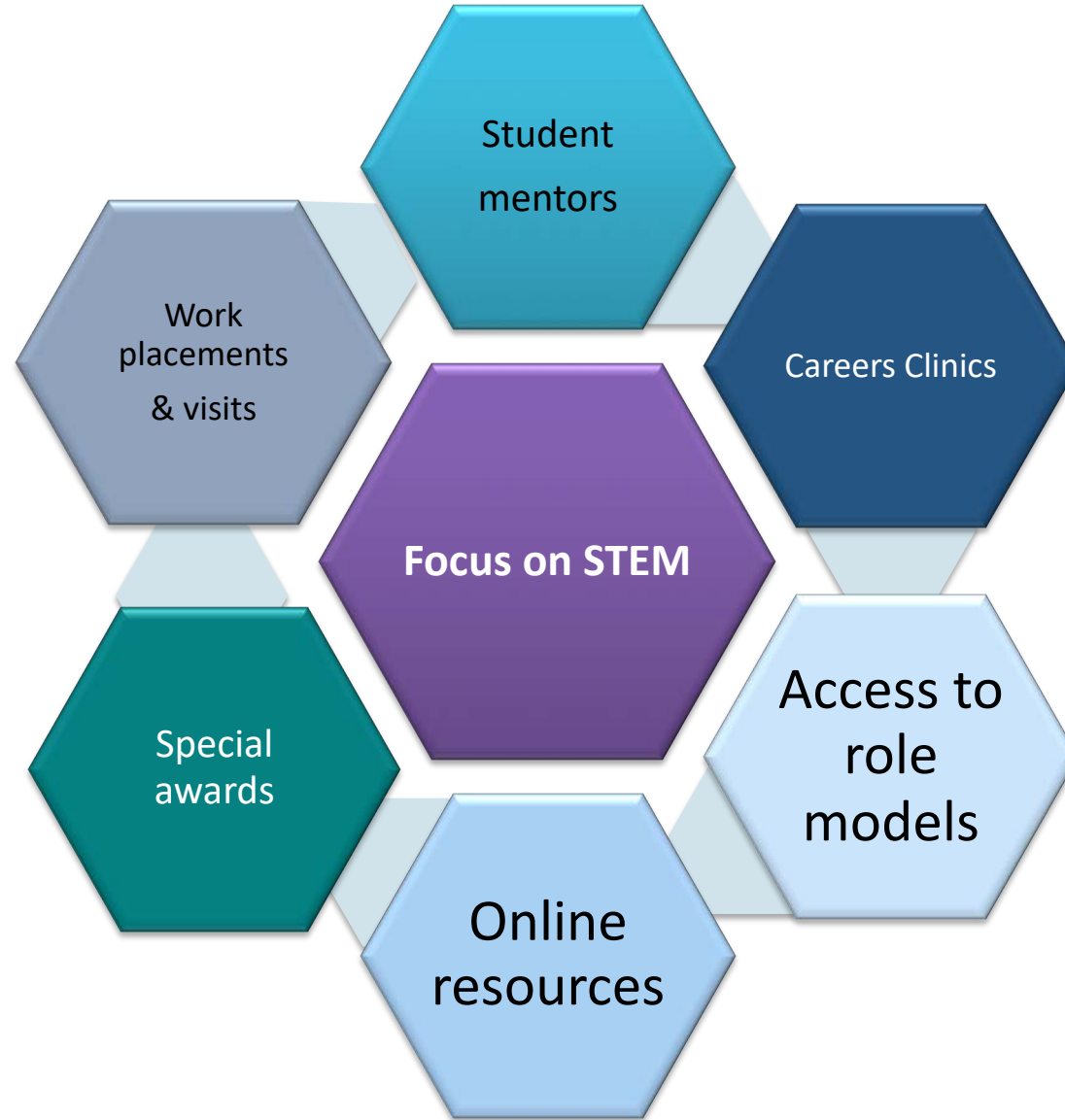
www.wisecampaign.org.uk

WISE energises leaders in business, industry and education to increase the participation, contribution and success of women in STEM.

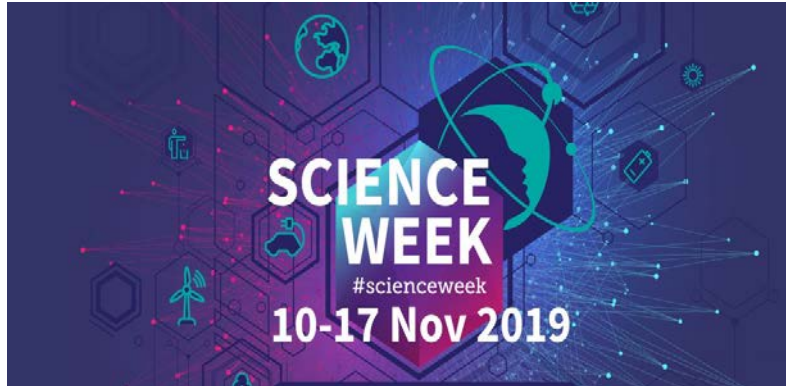
UK on target to reach 1 million women in STEM by 2020 (10% increase)



Reduce the unconscious bias




Celebrate and showcase achievement



International Day of Women and Girls in Science



- 
- A vertical line of four white circles with blue outlines, connected by thin lines, serving as a visual structure for the list items.
- Clear vision and commitment by Government with metrics and impact assessments
 - Institutional policies to increase participation and progression. E.g Equality Charter (Athena Swan)
 - Accessible role models through media and national awards for teachers, employers.
 - Investment in teacher education, > online resources , case studies., scholarships, competitions





Co-funded by the
Erasmus+ Programme
of the European Union

NORTHERN
Regional College

*“Ambition is the first step to success;
action is the second.”*

Thank you



Sari Harmoinen

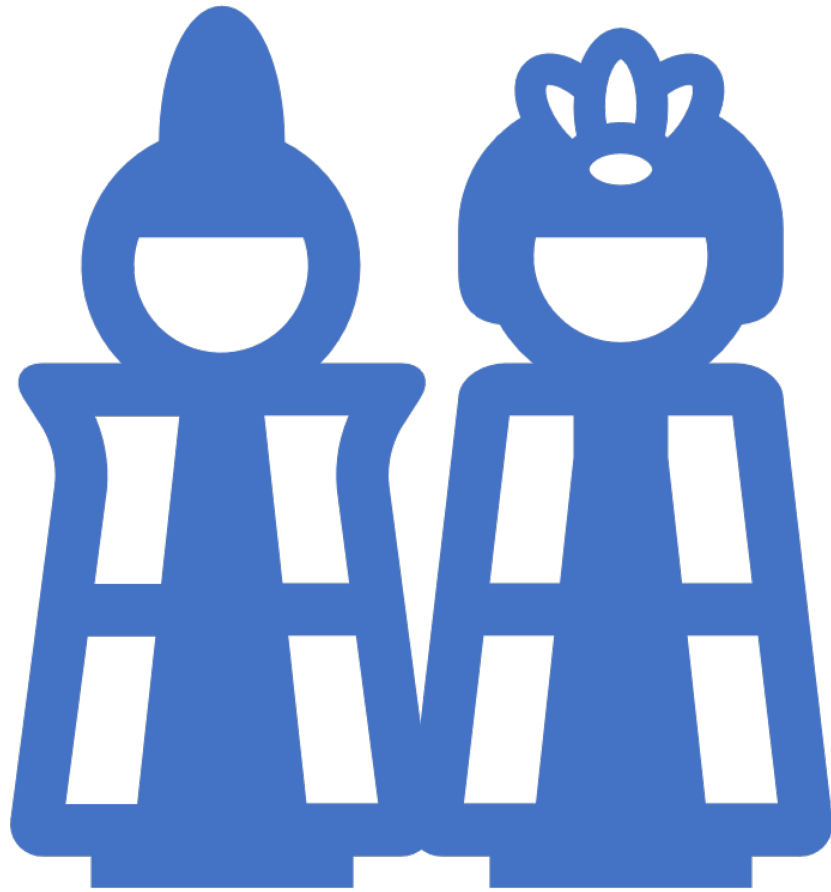
Doctora en filosofía de la Universidad de Jyväskylä en Finlandia.

Se ha desempeñado como profesora universitaria y cuenta con gran experiencia en tecnología educativa, ciencia, desarrollo curricular y matemáticas.

Actualmente es Vicedecana de la Universidad de Oulu.

Lidera el proyecto “Plan de igualdad y diversidad de género”.

Conversatorio sobre experiencias en adopción de políticas de equidad de género en instituciones de educación superior



Gender equality & STEM: Best practice in government and institutional policy



Dr Sari Harmoinen
Education Dean in the Faculty of Education
University of Oulu

LEGISLATION

- Diversity and actual equality are two of the most essential basic **human rights**.
- According to **the Constitution of Finland** [section 6, 731/1999] everyone is equal before the law, and no one shall, without an acceptable reason, be treated differently from other persons on the ground of gender, age, origin, language, religion, conviction, opinion, health, disability or other reason that concerns their person.
- Gender equality is promoted **in societal activity and working life**, especially in the determination of pay and the other terms of employment, as provided in more detail by an Act.
- The **language** used in the equality and diversity plan is *gender-neutral*.

GENDER EQUALITY PLANS (GEPs)

- Experiences of inequality could definitely weaken the **sense of community**. On the other hand, mutual respect, openness and good communication can be promoted when people **who belong to the community feel** that they are equal.
- In **the equality and diversity plan of the University of Oulu**, the emphasis is on topical and practical procedures in order to **promote both equality and diversity**. The objective is to consider simultaneously the regulations of both the Act on **Equality between Women and Men** (609/1986) and the **Non-discrimination** Act (1325/2014) in the University.
- The action of an educational institution or any other body providing training or education shall be deemed to constitute **discrimination prohibited** under the Act 609/1986 if a person **is treated less favourably than others on the basis of gender** in student selections, the organisation of teaching, the evaluation of study performance or **in any other regular activity of the educational institution or body**.

GENDER EQUALITY PLANS

- According to the Act on 609/1986, if an employer regularly has a personnel of **at least 30 employees** working in employment relationships, the employer shall at least **every two years** prepare gender equality plan dealing particularly with pay and other terms of employment, according to which the gender equality measures are implemented. The gender equality plan must be **prepared in cooperation with staff representatives**.
- Educational institutions shall prepare the gender equality plan annually in cooperation with staff and students. Instead of the annual review, the plan may be prepared in educational institutions not less than once every three years.

GENDER RESPONSIBLE AND COMPETENCES AT SCHOOLS

- In all **comprehensive school** should have a equality plan (from year 2016)
- Curriculum at schools but also at teacher education should have themes of gender responsibility and forbidden segregation.
- There has been a project SETSTOP supported by Ministry of Education
- The aim has been to create practices at schools to provide awareness of gender and equality
- In that project there has also planed in-service teacher training in those themes but also studies/courses for university teachers

(In the Act on Equality between Women and Men)

Direct/indirect gender-based discrimination means

- **Direct** means treating women and men **differently**
 - on the basis of **gender**,
 - for reasons of **pregnancy or childbirth**, or on the basis of gender identity or gender expression.
- **Indirect** means treating someone differently
 - by virtue of a provision, criterion or practice that appears to be gender-neutral in terms of gender, gender identity or gender expression,
 - but where the effect of the action is such that the person may actually find themselves **in a less favourable position** on the basis of gender
 - on the basis of **parenthood or family responsibilities**.

Appointment processes

- An equal number of men and women is always invited and appointed as members in workgroups, while considering the task of the workgroup;
- In other words, the principle is followed included in the Act 609/1986 that the **proportion of both women and men must be at least 40 per cent** of public administration **bodies** and bodies exercising public authority.
- Similarly, members are **appointed** to **workgroups** and similar in representative proportions and equally from various **personnel and student groups**.



Results from survey (2018) by Microsoft

- There is no differences in interests of technology between girls and boys before age of 11.
- =>The differences between gender is not given in born.
- Age 11-14 is critical for girls, in that age they lost their interest for technology.
- Girls can't even see themselves in the job of technology. Almost 25% of girls don't see needs for understand technology in the future and work life.

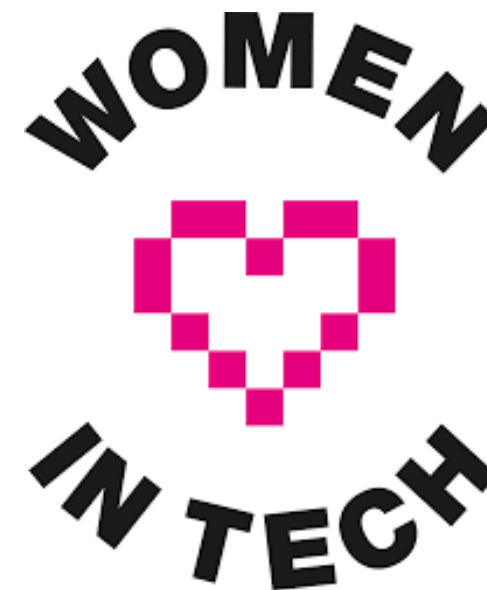
A woman with blonde hair is using a white stylus on a tablet. The tablet screen shows a colorful illustration of a dinosaur. In the background, another person is using a tablet. The scene is set on a white desk with a laptop and other items.

Need for staff

- In programming there is need for 7000-9000 employees
- Now 90% of programmers are males
- There is need to get know the reasons this is not interested in girls.
- Or is the reason: girls don't know, what kind of work it is?
- There is need for role models!!

What have done?

- Regularly organized Girlz in Tech happening (organized in co-operation with Young Entrepreneurs, Microsoft ja Magazine Demi)
- In Girlz in Tech girls meet real role models from the field of technology [töstö](#)
- Girls need support from parents, teachers but all other ones also.



TYTÖILLE

Sinä olet maailman kärkeä luonnontieteissä ja matemaattisissa aineissa!
Sinulla on monia tapoja tuoda osaamisesi esiin eikä mikään pidättele sinua.

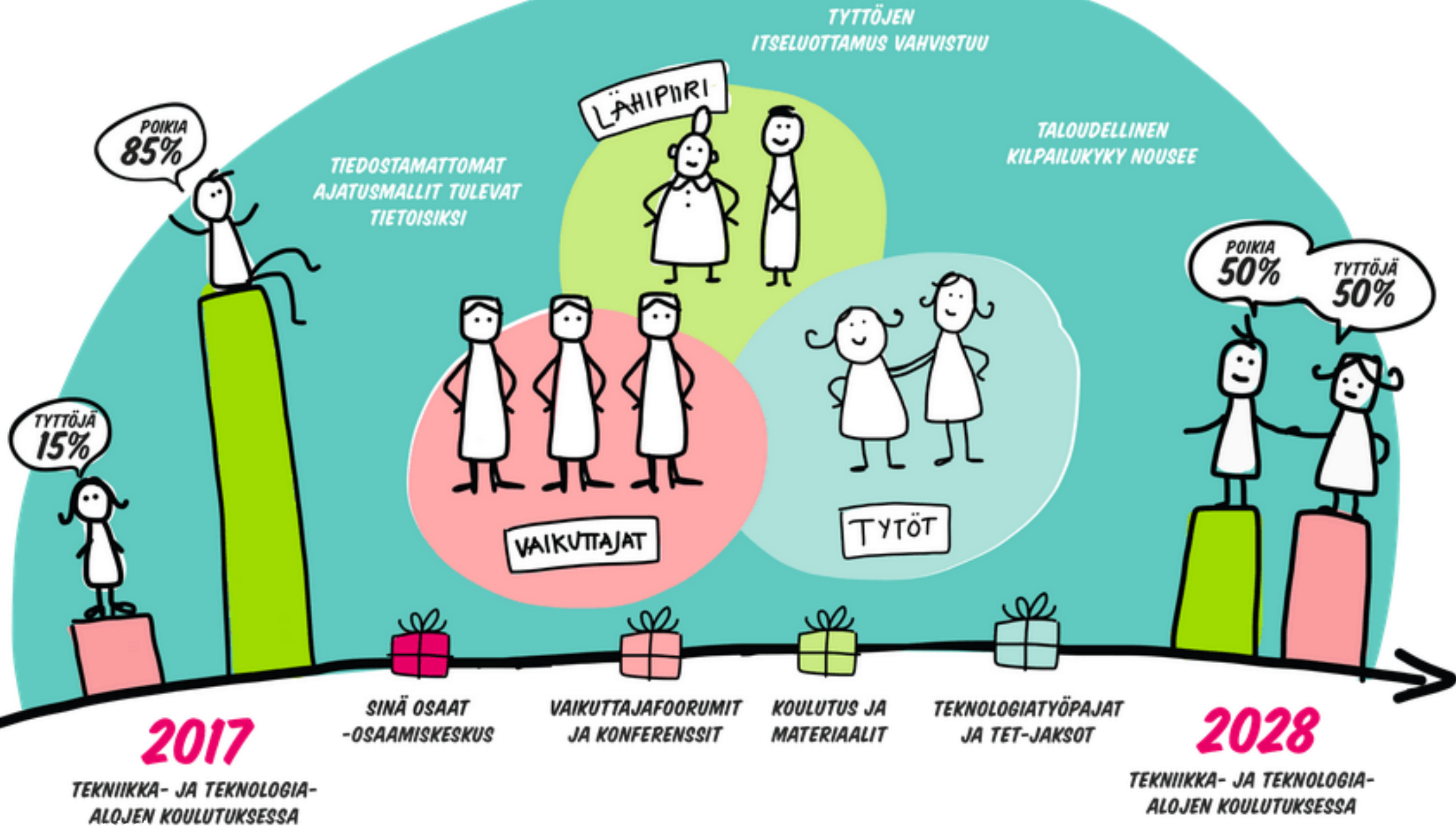
YOU CAN! GIRLS AND TECHNOLOGY

You can! Girls and Technology familiarizes girls with fields of technology and industries, grows their personal self-confidence in their know-how and supports to maintain that confidence in the transitional periods of their education path. The main target group of the project are girls, school faculties and counsellors, employers and companies. Indirect target groups are influencers and decision makers, parents and the media.



Here is six research based statement how to EDISTÄÄ female to field of technology

- Practical experience and workshops in science subjects
- Equal treat for male and female
- Role models for girls and women
- Teachers support for studies equally
- Parents support for studies equally
- Awareness of how to SOVELTAA science studies in practice





THANK YOU!

- Sari.harmoinen@oulu.fi



NY STEM with NOKIA -innovaatioleiri

University of Oulu

- **The Equality and Diversity Committee** (appointed by the Rector) consists of the faculty representatives, equality and diversity workgroup representatives, representatives from student and employee organisations, and experts (the Student Union's specialist in social politics, a university lecturer from Gender Studies, the human resources, and an accessibility contact person). The chair of the Committee is appointed by the Rector.
- Three common equality and diversity **workgroups** have been set up in faculties, and in addition, equality and diversity **contact persons** can be appointed in units. **Student organisations** may have their own appointed persons responsible for equality and diversity.

Anita Tabacco

Doctora en Matemáticas de la Universidad de Washington.

Máster en Matemáticas de la Universidad de Washington.

Profesora de Matemáticas en el Politecnico di Torino en Italia.

Programas para incrementar la participación de mujeres en las carreras de ingeniería.

Conversatorio sobre experiencias en adopción de políticas de equidad de género en instituciones de educación superior

FIRST BENCHMARKING ROUND Equality @ PoliTo

Prof. Anita Tabacco – Rector's Delegate



POLITECNICO DI TORINO

Index

- ❖ PoliTo presentation
- ❖ Strategic Plan
- ❖ Good practices
- ❖ Gender analysis

Our history in a few steps

Technical School
for Engineers



1859

Italian Industry
Museum



1862

Corso Duca degli Abruzzi
Campus opening



1958

150 years of
“Polytechnic culture”



2009

1861



Unification of Italy

1906



Regio
Politecnico di Torino

1991



Cittadella
Politecnica Campus:
site construction
opening

Today



A campus in continuous evolution



PoliTo at a glance

Students

AY 2018/2019

35 000 Students enrolled in Bachelor's and Master's degree programmes

72% Male students

28% Female students

662 PhD candidates

Students from outside Piedmont

68% 52% italians living outside Piedmont
16% international students

5 302 First-year bachelor students



PoliTo at a glance

Courses catalogue

AY 2018/2019

- | | |
|-----------|--|
| 22 | Bachelor's degree programmes
3 in Architecture 19 in Engineering |
| 28 | Master's degree programmes
5 in Architecture 23 in Engineering |
| 20 | Educational paths taught completely in English |
| 16 | PhD programmes including
5 in cooperation with other universities (3) research centres (2) |
| 1 | Qualità & Impegno (Quality & Commitment)
programme for Bachelor's students |
| 1 | Alta Scuola Politecnica (ASP)
for Master's students |



Departments

INDUSTRIAL ENGINEERING



DENERG

Energy

DIMEAS

Mechanical and Aerospace
Engineering

DISAT

Applied Science and
Technology

INFORMATION TECHNOLOGIES



DAUIN

Control and Computer
Engineering

DET

Electronics and
Telecommunications

INDUSTRIAL ENGINEERING AND MANAGEMENT, MATHEMATICS FOR ENGIN.



DIGEP

Management and Production
Engineering

DISMA

Mathematical Sciences

CIVIL AND ENVIRONMENTAL ENG., ARCHITECTURE AND INDUSTRIAL DESIGN



DAD

Architecture and Design

DIATI

Environment, Land and
Infrastructure Engineering

DISEG

Structural, Geotechnical and
Building Engineering

DIST (Interuniversity Department)
Regional and Urban Studies
and Planning

Interdepartmental Centers



CARS@PoliTO
Center for Automotive Research and Sustainable mobility

CWC
CleanWater Center@PoliTO

Ec-L
Energy Center Lab

FULL
The Future Urban Legacy Lab

IAM@PoliTO
Integrated Additive Manufacturing

J-TECH@PoliTO
Advanced Joining Technology

PEIC
Power Electronics Innovation Center

PHOTONEXT **PhotoNext**

PIC4SeR | PoliTO Interdepartmental Centre for Service Robotics

PoliTo^{BIO}Med Lab
Biomedical Engineering Lab

R3C
Responsible Risk Resilience Centre

SISCON

SmartData@PoliTO
Big Data and Data Science Laboratory

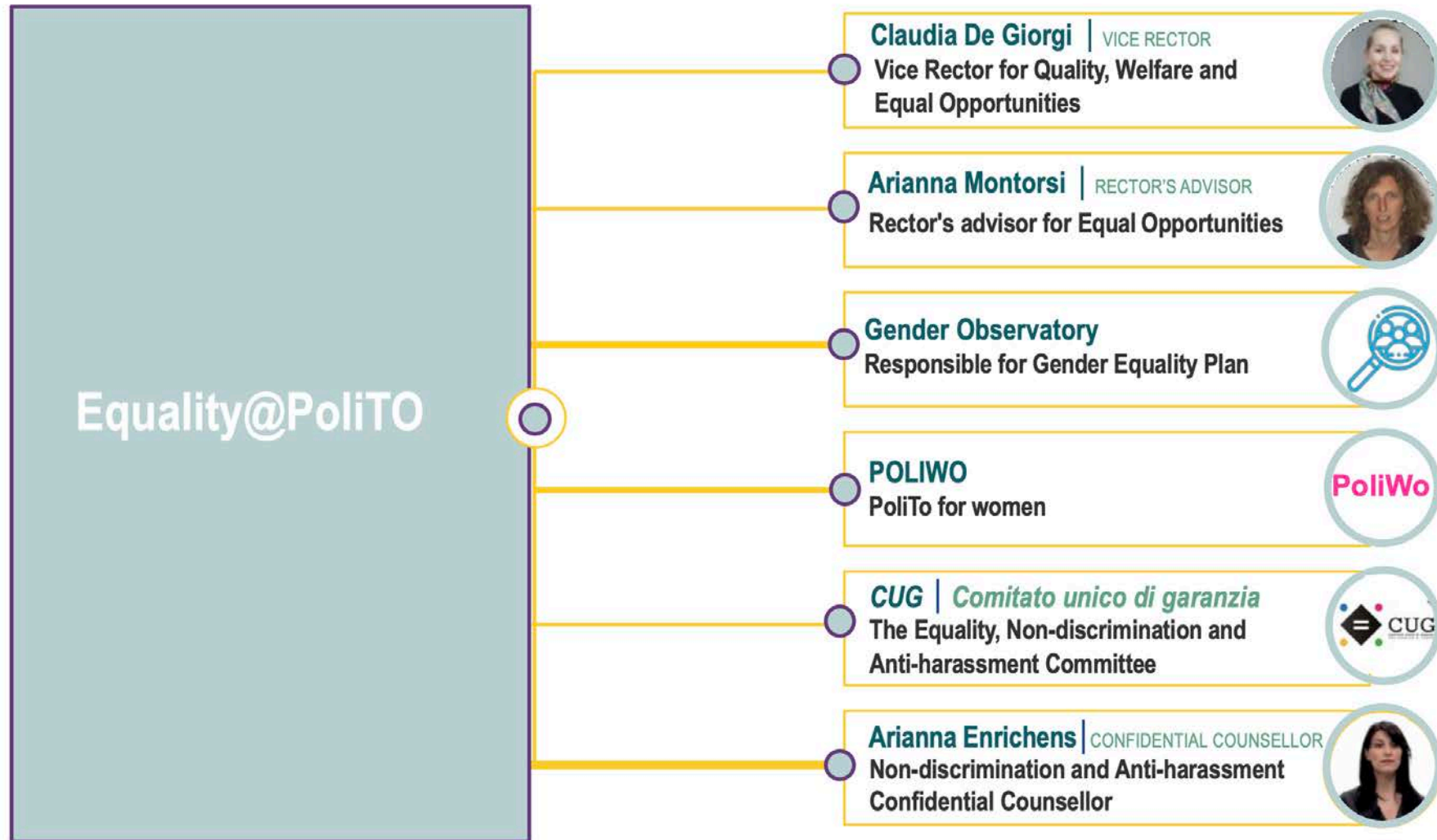
Strategic plan



The promotion of **equal opportunities** and **inclusiveness** is inspired by our University' commitment to ensuring fair treatment and opportunities to all its members. Moreover, it stems from the belief that **diversity and inclusion are core values** for any university which aims to be a **school of life**, as well as a place for study and work.

In this context, by sharing and implementing the principles of the **European Charter for Researchers**, our University will launch new initiatives to monitor and govern equal opportunities with respect to the various aspects of diversity, **starting from gender diversity**.

The new structure



160 years of history from an Equality point of view

**Technical School
for Engineers**

1959

Emma Strada



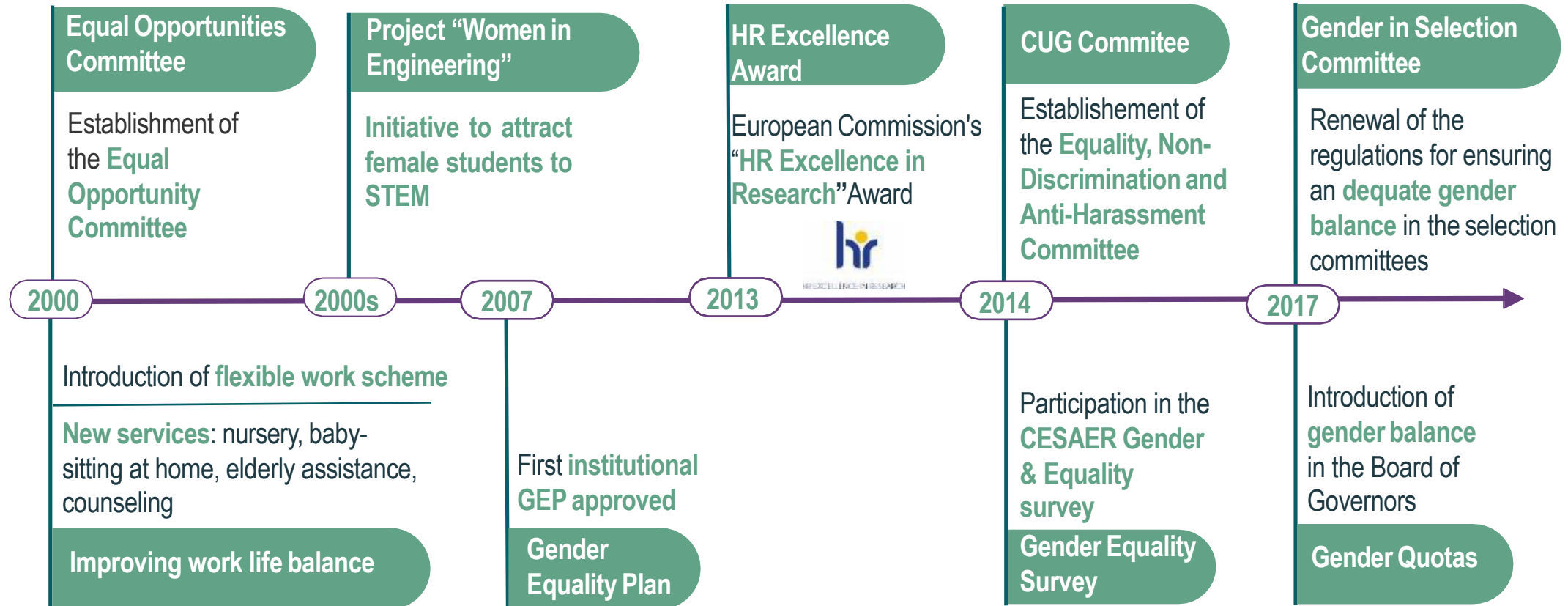
1908

**First woman graduated
in Engineering in Italy**
Civil Engineering

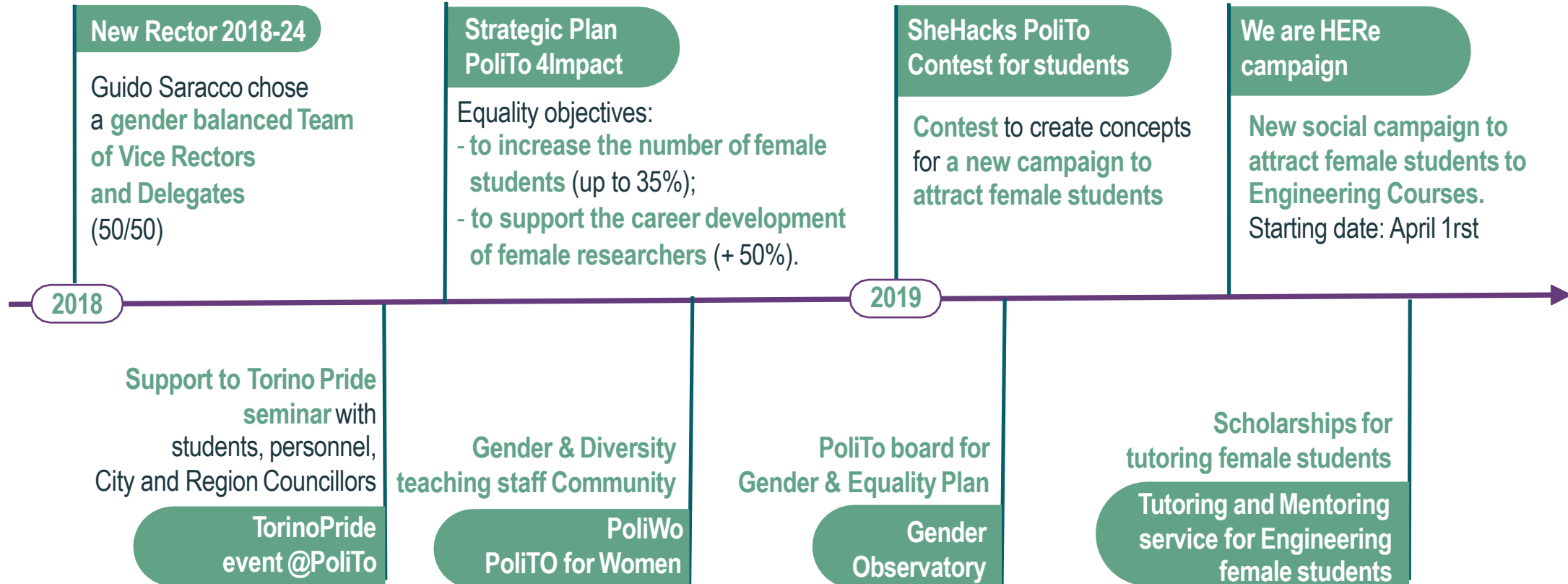
Founder and first president
of **A.I.D.I.A.**, the Italian
Association of Women
Engineers and Architects

today →

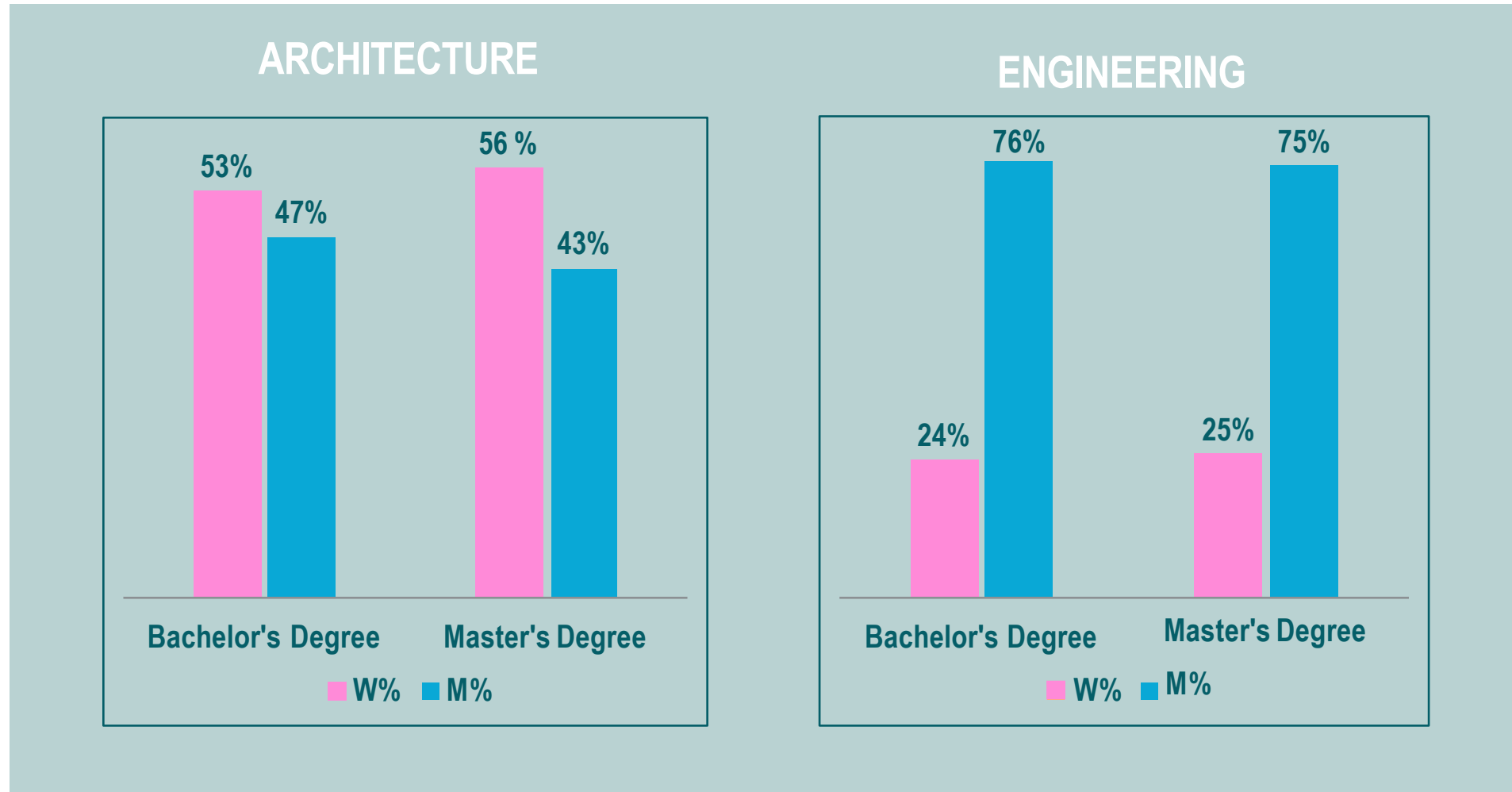
Good practices: the past



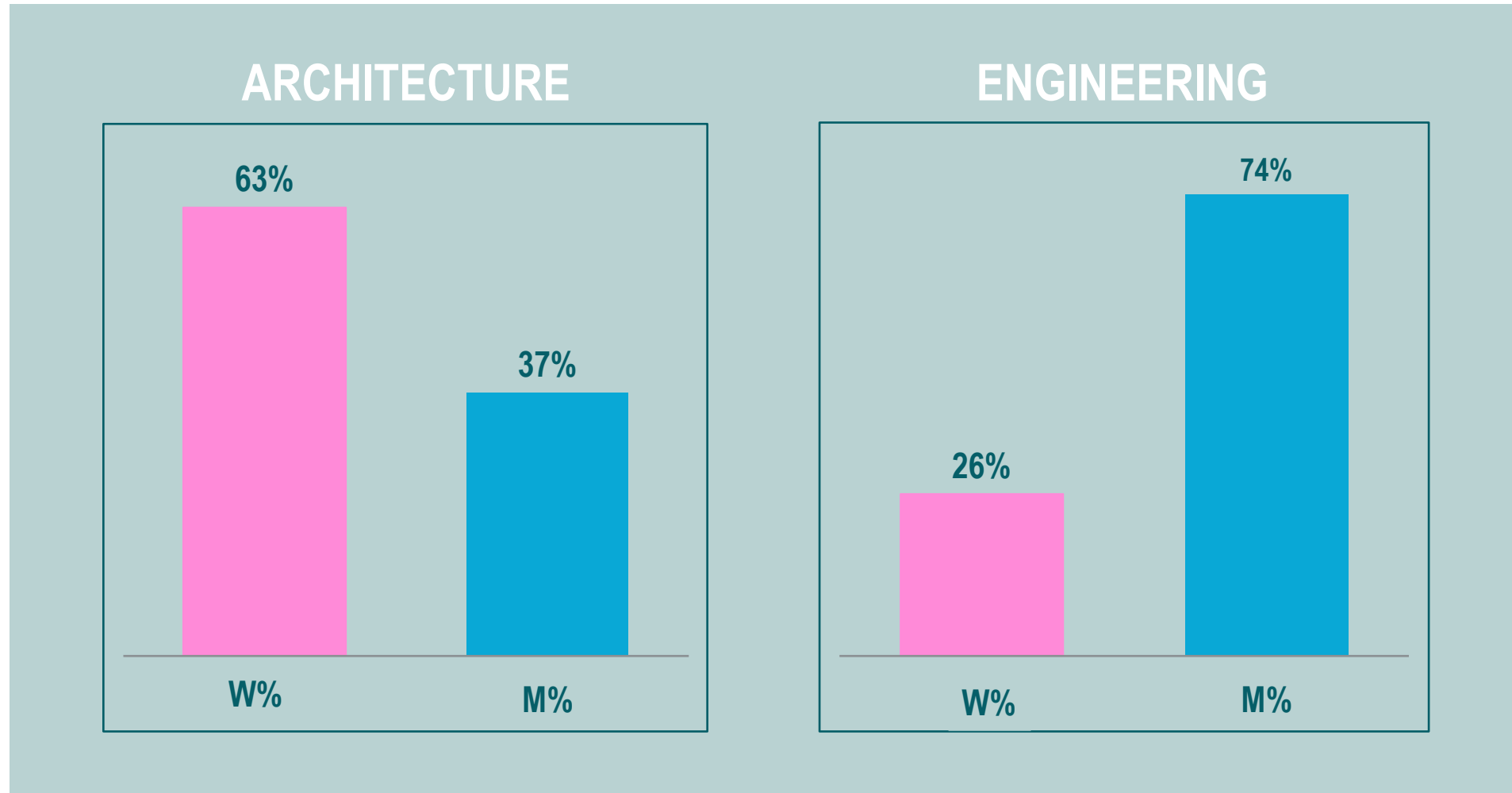
Good practices: the present and the future



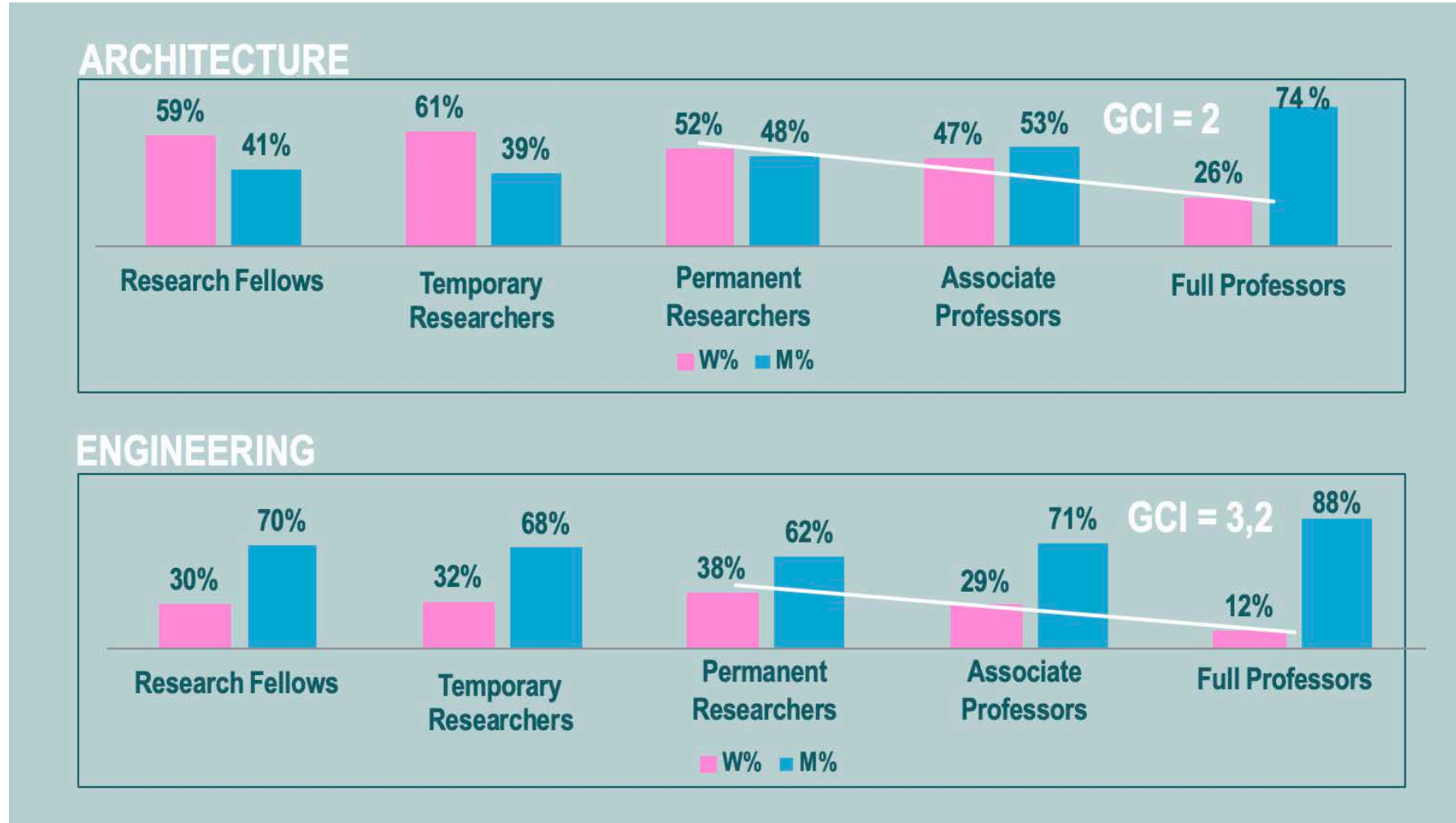
Gender analysis: Students



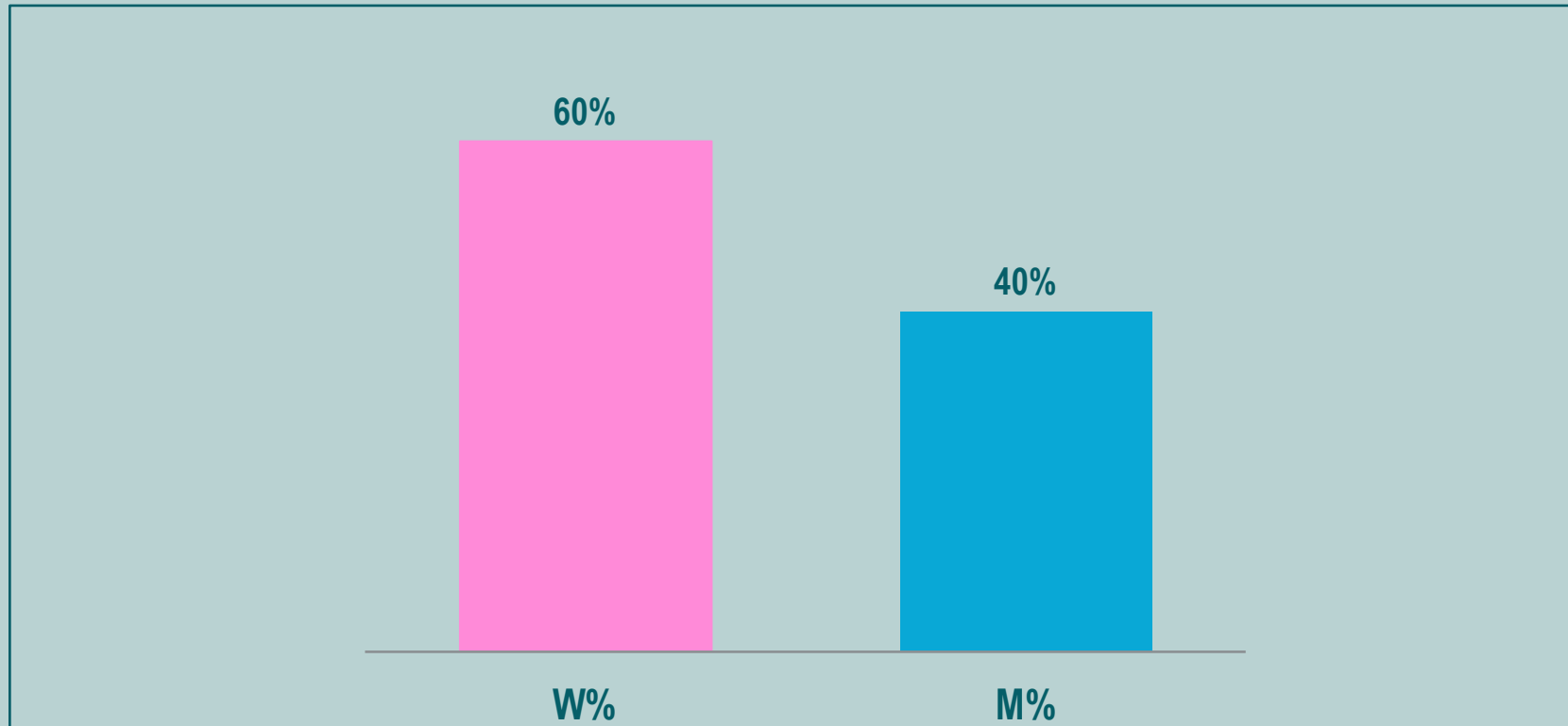
Gender analysis: PhD candidates



Gender analysis: Teaching staff



Gender analysis: Administrative staff



Disclaimer

W-STEM (Building the future of Latin America: engaging women into STEM) is a project funded under European Union ERASMUS + Capacity-building in Higher Education Programme [598923-EPP-1-2018-1-ES-EPPKA2-CBHE-JP]

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein



Co-funded by the
Erasmus+ Programme
of the European Union

wstem



UNIVERSIDAD DE
GUADALAJARA



POLITECNICO
DI TORINO



UNIVERSIDAD DE
COSTA RICA



UTPL
UNIVERSIDAD TÉCNICA PARTICULAR DE LOJA



Universidad
Tecnológica
de Bolívar



UNIVERSIDAD
DEL NORTE



NORTHERN
Regional College



Tecnológico
de Monterrey



PONTIFICIA UNIVERSIDAD
CATOLICA
DE VALPARAISO



UNIVERSIDAD TECNICA
FEDERICO SANTA MARIA

TEC

Tecnológico
de Costa Rica



UNIVERSIDAD
DE SALAMANCA