Women in Europe Technology and Science
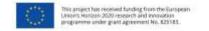
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F6S – www.f6s.com

Empowering Women in Tech - A Transatlantic Vision

Think NEXUS Webinar 23 July 2020

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WHAT'S ON THE MENU?

- Problem
- Drivers
- Actions

Empower women to play a more active role in the digital age

to boost the economy and bridge gender gaps within society

Gender inequality

SHARE of STEM UNDERGRADUATE

France / 30%
Germany / 23%
Switzerland / 21%

Women account for just **24%** of science and engineering professionals

EMPLOYMENT in STEM FIELDS

FRANCE, LATVIA, SWEDEN

IRELAND, GREECE, ESTONIA, ITALY, PORTUGAL, LUXEMBOURG, HUNGARY

CYPRUS

MALTA

WOMEN IN THE BOARDROOM

Problem

- There is a **massive talent gap** in the science, technology, engineering and mathematics (STEM) fields across Europe;

- **Europe's lack of STEM-skilled labor** has the potential to significantly constrain its future economic growth (1);

- According to the EC, by 2020 Europe will lack 900, 000 IT professionals = Stockholm's population;

- Employment in STEM fields across Europe is male-dominated. **Women account for just 24% of science** and **engineering professionals**, and **15% of science and engineering associate professionals** (2);

- Only **12.6% of female** university graduates majored in STEM-related subjects in Europe, vs. **37.5% of male** (3);

- There are complex **institutional, organizational, and individual factors** influencing women's entrepreneurship in STEM fields;

- **82% of women** with male-dominated career aspirations in their senior year of high school chose to change their career aspirations by age 25 to either a gender-neutral or female-dominated career.
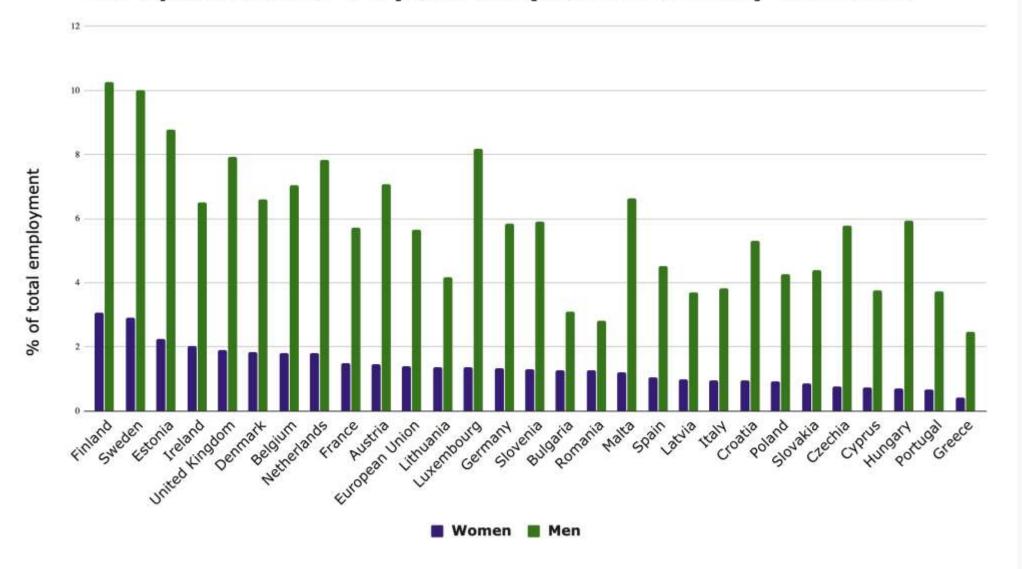
1. CEPS Policy Brief, "The Opportunity Costs of STEM Degrees and the Unmet Needs of the Low-Skilled: Two Labour Market Problems Explained," By Ilaria Maselli and Miroslav Beblavý, June 26, 2013 http://aei.pitt.edu/42911/1/PB295_IM_%26_MB_Labour_Market_Problems.pdf
2. Publications Office of the European Union, Luxembourg, "A New Method to Understand Occupational Gender Segregation in European Labour Markets," By Burchell, B. Hardy, V., Rubery, J. and Smith, M, 2014 http://ec.europa.eu/justice/gender-equality/files/documents/150119_segregation_report_web_en.pdf
3. European Parliament, Directorate General for Internal Policies, Policy Department A: Economic and Scientific Policy, "Encouraging STEM Studies for the Labour Market," March 2015 http://www.europarl.europa.eu/RegData/etudes/STUD/2015/542199/IPOL_ STU(2015)542199_EN.pdf
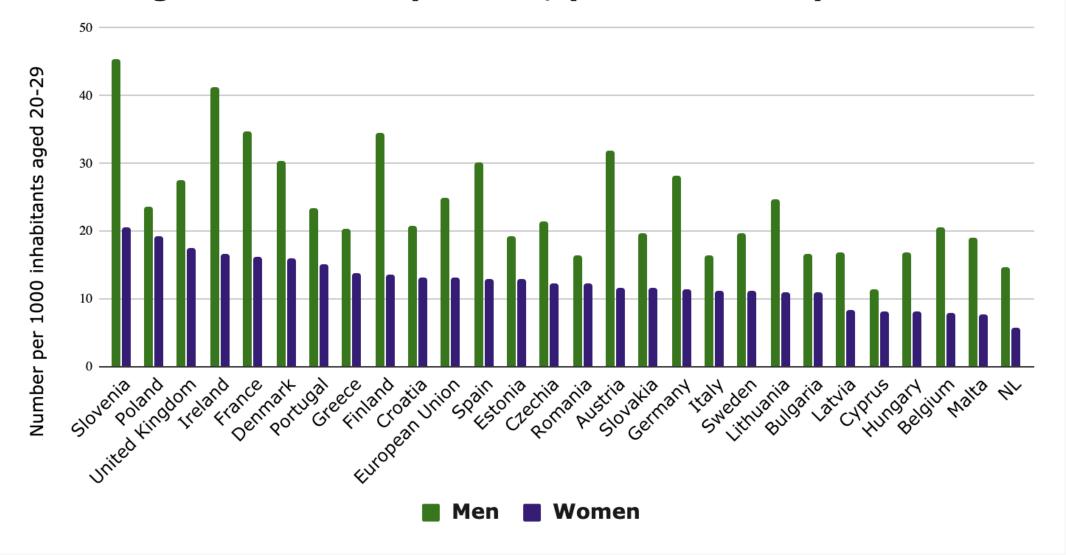
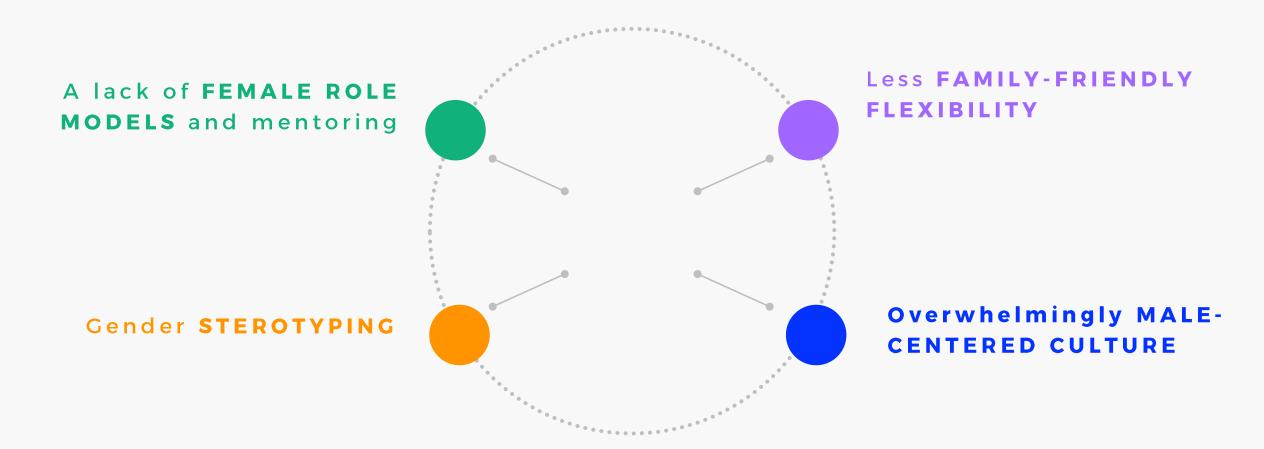ICT specialists 16 -74 years old (women vs. men) Year: 2017

STEM graduates 16-74 years old, (women vs. men) Year: 2016

Legend: Men (green), Women (purple)

Y-axis: Number per 1000 inhabitants aged 20-29

Why women drop out of STEM careers?

A lack of **FEMALE ROLE MODELS** and mentoring

Less **FAMILY-FRIENDLY FLEXIBILITY**

Gender **STEROTYPING**

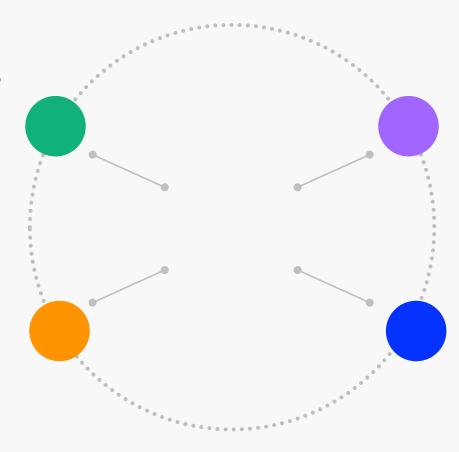**Overwhelmingly MALE-CENTERED CULTURE**

Where women face challenges along the STEM career?

SECONDARY SCHOOL & HIGHER EDUCATION

- **At risk due to mindset and lack of role models;**
  - The proportion of girls drops off at late high school;
  - At university, the trend continues

MID-CAREER

- **At risk following motherhood and/or due to a lack of career growth expectations**
- Women tend to drop out of the workforce at key phases in their life and career; and at mid-management levels, where their networks and peer ranks start to thin.

EARLY CAREER

- **At risk due to lack of support**

ESTABLISHED CAREER

- **At risk due to isolation and exclusion**
- Women find themselves with few female peers in high-level leadership positions

TAKING ACTION

Commission outlined a strategy to increase women's participation in the digital sector, focussing on:

- **Challenging digital gender stereotypes**
- **Promoting digital skills and education**
- **Advocating for more women entrepreuners**

Initiative / Policy / Campaign	Goals and mission
#DigitalRespect4Her	Campaign launched by the EC to raise awareness about online aggression aimed at women in tech and to promote respect and good practices to resolve the problem of cyber bullying.
European Network for Women in Digital	Platform promoting higher participation of girls and women in tech related studies and careers across the EU. Tackling gender stereotypes, supporting diversity in STEM fields, and providing resources for girls and women interested in ICT, engineering etc.
Member States' Declaration of commitment on women in digital	Twenty-seven EU ministers and Member States' representatives plus Norway signed the Declaration of commitment on Women in Digital at Digital Day on 9 April 2019. Raising the political priority of women's under-representation in the digital economy.
Declaration on an inclusive company culture	The declaration signed online by ICT CEOs aiming at closing the gender gap and providing an inclusive and gender-balanced work culture.
No Women No Panel	Campaign to bring awareness to the composition of scientific and tech panels.
Women in Digital	Platform supporting higher female participation in technology and providing evidence and estimates of the boost of the economy when more women in tech are recognised, included, and supported.
Girls in ICT Day	The international day of Girls in ICT suggested and implemented by the International Telecommunication Union to empower and encourage girls to choose STEM careers.
European Women in Tech	The biggest EU conference celebrating successes and innovations engineered and owned by women from across the tech industry. Supplying women with tools, knowledge, endorsement, and networking opportunities.
WEGate: European Gateway for Women's Entrepreneurship	Providing up-to-date information, resources, career and networking opportunities for women entrepreneurs who own businesses and start-ups, mostly in tech and ICT.
European Centre for Women in Technology	The partnership of more than 130 organisations representing high-level expertise in women and technology development from government, business, academia, and non-profit sectors working together to increase the number of girls and women in technology and ICT in specific.

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Khulan Batbayar
Universitat Politecnica de Catalunya

RESEARCHER

FOCUS AREA Cloud/Edge Computing

PROJECT TITLE
Sense-Share-Select: distributed collaborative Internet gateway selection algorithm

Aurora González-Vidal
University of Murcia

RESEARCHER

FOCUS AREA AI

PROJECT TITLE
Knowledge transfer between buildings with different levels of sensorization using transfer learning techniques for the realization of smart buildings
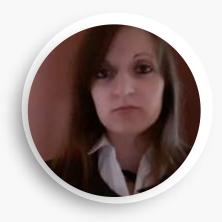
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Cristina Marquez
Universidad Carlos III de Madrid

RESEARCHER

FOCUS AREA 5G

PROJECT TITLE
Dynamic evolution of mobile traffic data around the world

Erma Perenda
KU Leuven, Department of Electrical Engineering

RESEARCHER

FOCUS AREA 5G
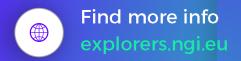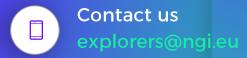
PROJECT TITLE
RF Spectrum Deep Insight

Learn more at: https://explorers.ngi.eu/the-explorers and our you tube channel   https://www.youtube.com/watch?v=DLcbdIdzzH8

US Partners