

ONLINE WEBINAR

Bridging the skills shortage in the EU Semiconductor industry

Discuss the skills shortage affecting the EU semiconductor industry, explore its relationship with inclusion

17 May 2023 14:00 > 16:30 CEST



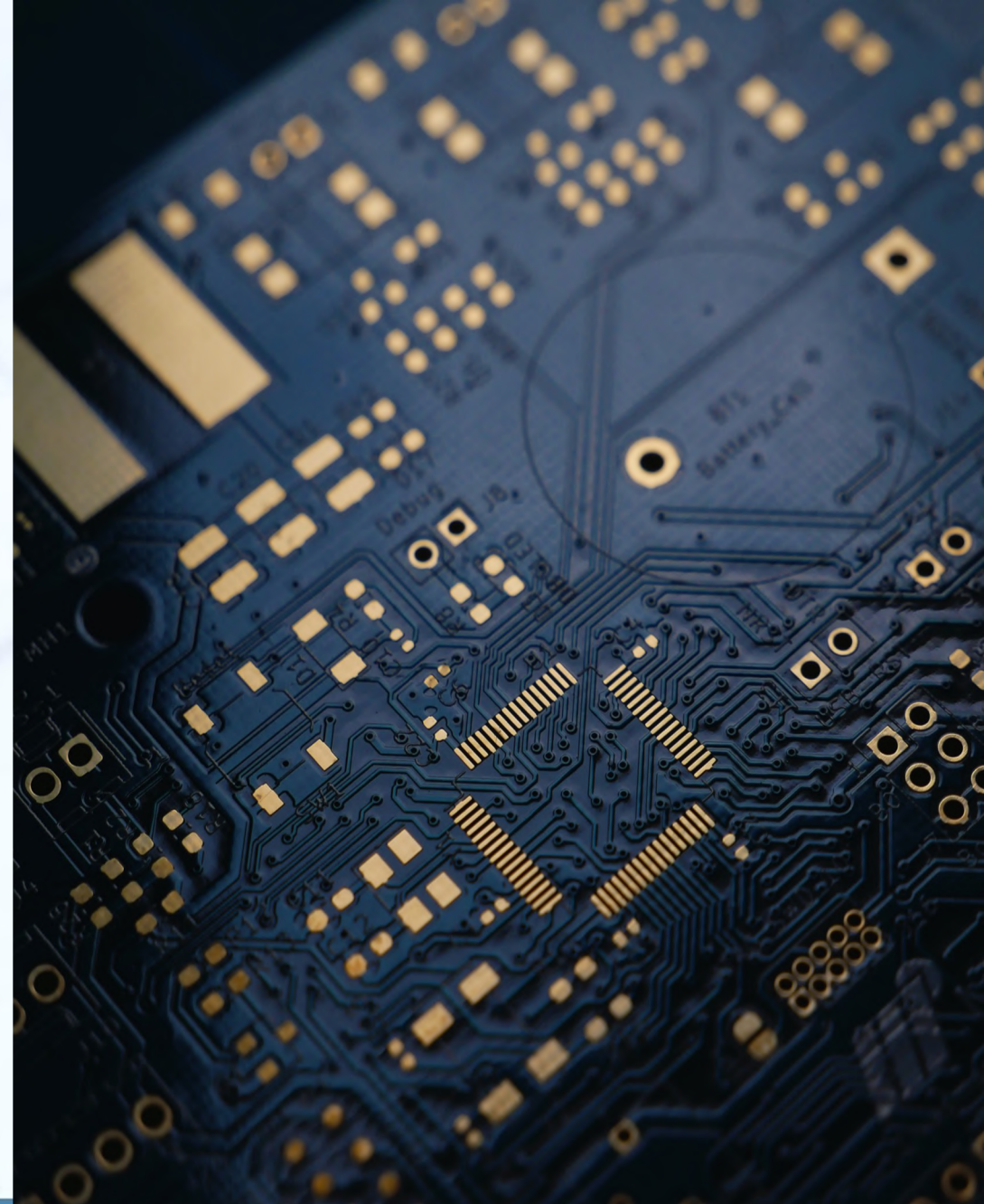
Introduction & Housekeeping

- The event will be recorded and will be made available on the ALLPROS.eu website.
- We do encourage you to enter any questions in the dedicated Q&A box in the lower toolbar. The speakers will be pleased to answer your questions in real-time.
- You can follow the chat to receive relevant links on ALLPROS.eu activities and updates.

Growth in ICT
employment is expected
to reach **4.5%** in 2023 and
have a CAGR of **4.8%**
between 2021 and 2026.

TECH SUPPLIER mag 2023 // Market Forecast // European IT
Employment Forecast, 2021-2026

Author: IDC



Platform Talent for Technology

The importance of gender and inclusion in current skills development activities in the EU

Beatrice Boots
ALLPRO May 17 2023

Platform

Talent voor
Technologie



EU STEM Coalition

What is it?

- Network of national STEM platforms

Objectives

- Facilitate the exchange of best practices
- Support the development of national STEM strategies

Members

- STEM platforms
- European partners
- National lead partners

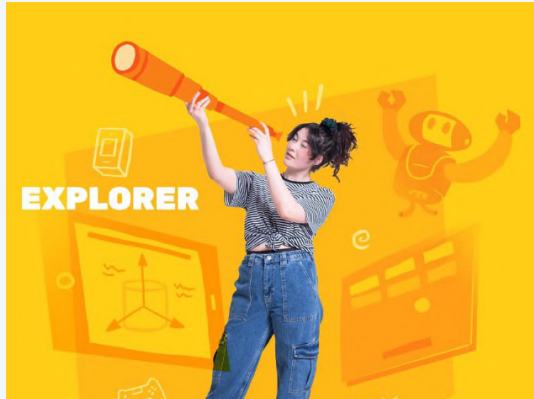


Roles of National and European STEM Platform

- **Ambition of partners:** working together for more STEM talent for The Netherlands/Europe by closing the gap between education system en labour market.
- **Triple Helix** approach: government – education - businesses
- No new paper, **empower strenght of continuing existing initiatives** and networks. Where possible **SCALE UP** (the proven concepts).
- Start with ambition, set concrete targets and **quantitative goals (e.g. X% women)**
- Platform: stimulating, initiating and connecting innovations, communicate about results
- Innovation is bottom up with top down guidance
- Enlargement and up scaling of 'Proven concepts'
- Chain approach and 'career centered'

Knowledge based approach **BETA TECH MENTALITY MODEL** :

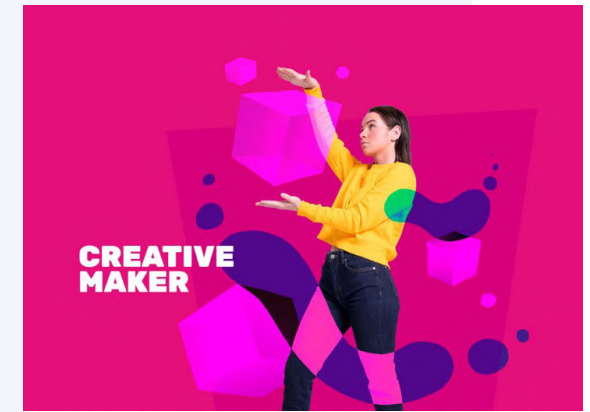
A colourful divers and nuanced view on what motivates young people, esp. women/girls/divers groups.



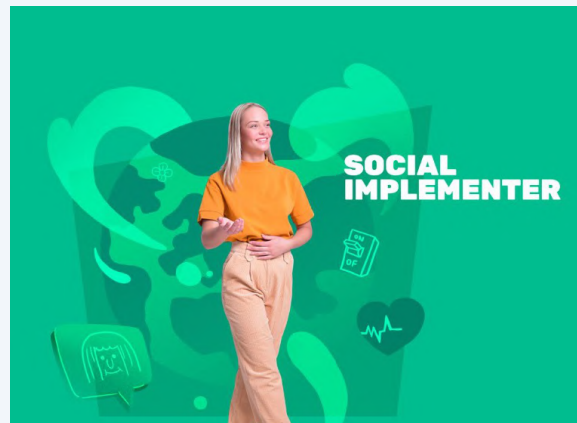
"I really don't know what I want to do yet. Fortunately, I don't have to choose a profile until the end of this year."
(Lana, age 14, theoretical VMBO)



"I like to do chemistry experiments, but actually we almost never do that." (Lea, age 14, HAVO)



"If something is explained in physics or chemistry class, I will experiment with it at home. Soon I'm going to do something with electricity at home with my dad, because we're learning that at school now." (Joanna, age 13, VMBO)



"Technology doesn't seem like something for me. It has nothing to do with the body or with sports, so I don't see it as an option."
(Nina, age 14, VWO)



"I read a lot of comic books, especially Donald Duck. There are a lot of inventions in there. Not those things that explode, but really handy new things. I would like to become an inventor. Being a researcher also sounds fun."
(Mick, age 11, explaining the "inventor" profession)

Position paper on STEM skills in the transition to environmentally sustainable societies (incl. the role of women)

- **Important messages concerning women in STEM:**

- With women severely underrepresented (in some Member States by a factor of five) in the education fields that are currently most in demand, Member States need to **develop measures** to address this imbalance in a coordinated way.
- Such measures should include **more comprehensive monitoring efforts** that provide insight in the long-term impact of (combinations of) interventions on career choices and student performance. Ideally, the development of monitoring instruments and practices should be coordinated on EU-level where possible, to allow international comparison and data sharing.
- The majority of STEM platforms in the EU STEM Coalition network attribute the underrepresentation of women in STEM to social norms and gender biases and stereotypes, causing everything from lower uptake of pre-requisite STEM courses in secondary education to dropouts and career changes to non-STEM professions later on. More attention should be given female role models, career guidance practices and to providing context to STEM education and early on in the education career of young women.

Wrap up: The importance of gender and inclusion in current skills development activities in the EU

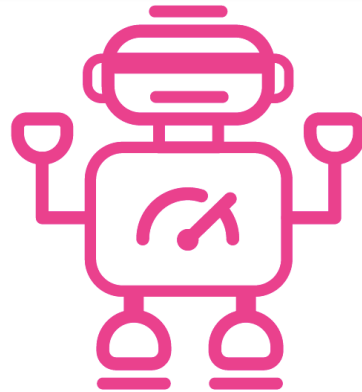
- No easy solutions
- New ways of communicating and approaches
- Always (as much as possible) Triple Helix
- Focus on jobs and careers is essential
- Long term

Girl Tech Fest

*National Centre for STEM Recruitment
Norway*

Basic Introduction :

- The aim of Girl Tech Fest is to promote girl's interest in science and technology
- Girls aged 10 -12 get to try programming and different technologies themselves at a local library
- This event takes place annually all around Norway
- Approximately 1300 girls partake in these events each year



GIRL.TECH(FEST)

*To learn more, please visit:
<https://www.girltechfest.no/>*

Aquí STEAM

*Universitat Politècnica de Catalunya
Spain*

Basic Introduction:

- The aim of Aquí STEAM is to attract female talent to study technology and engineering
- They target girls in Catalonia between the ages of 9 and 14.
- they try to break negative gender stereotypes pertaining to the field of STEAM
- A key component of the project is a training program for teachers which introduces a gender perspective in educational action



*To learn more, please visit:
<https://aquisteam.upc.edu/ca>*

Girls and Technology

*National Centre for STEM Recruitment
Norway*

Basic Introduction:

- The aim of Girls and Technology is to generally increase female participation in STEM.
- They try to make girls more interested in STEM subjects by promoting female role model examples to girls
- Since its beginning in 2003, it has had great success in addressing its aims, as made evident by the thousands of girls who participate in its activities each year

Jenter og teknologi

*To learn more, please visit:
<https://jenterogteknologi.com/>*

Working together on more STEM talent!

www.ptvt.nl

b.boots@ptvt.nl

www.stemcoalition.eu

Platform

Talent voor
Technologie





Summer School on Fascinating Electronics for a Cool World

Enrico Sangiorgi
University of Bologna and Aeneas

17/05/2023



Context and goals



- To achieve the ambitious EU CHIPS Act targets, the most limiting factor is talent availability
- Our goals
 - **Inspiring** the young generation to become professionals in the ECS ecosystem.
 - Expose the class to a series of **motivating** lectures and demonstrations from industrial and RTO's professionals who will cover **the whole spectrum** of the ECS value chain, engaged by the three associations
- Key messages
 - ECS are **cool**
 - Very diverse field, with lots to be invented still
 - They change the way we live
 - They are at the heart of a sustainable future
 - **You** can make a difference

Fascinating Electronics for a Cool World

. 2023 Summer School Edition .

20 - 25 August 2023

University Residential Centre
Bertinoro, Italy



- Initiative by AENEAS, EPoSS and Inside to attract talent
- Inviting selected students to get an understanding of the diversity of the activities offered by the ECS domain
 - 5-day programme, 40 students
 - Eligible: STEM undergrad programmes, one year before last
 - Selection criteria
 - Gender balance
 - Geographical balance
 - People able to further relay the information

Aeneas



EPoSS.

European Association on
Smart Systems Integration



Inside
Industry Association



Four main topics



- Technology - This day will provide an overview of the evolution of the chip industry since its birth towards the ongoing development of quantum technologies and survey the main processing steps for manufacturing various semiconductor devices. It will also address the reduction of the carbon footprint of the information and communication technology sector.
- Integrated Circuits design - This day will cover the challenges to be met when designing the various flavours of Integrated Circuits: Digital, Sensors, Microwaves... It will also feature a testimony by Bruno Murari, one of the pioneers of the industry and the father of the MEMS now present in all aspects of our digital life.
- Digital systems - During this day we will show you which technological trends currently are being developed in the area of “Digital Systems and Embedded Intelligence”. Topics include Embedded AI, Real-Time embedded Software, and Edge to Cloud Communication. Industrial Experts and outstanding scientists will explain how such technologies will enable new advances in areas like digital industries, the automotive sector, and for novel approaches of producing our daily food.
- Integration - Truly smart systems need to be integrated. This day will cover the techniques and architectures that allow reuniting all the necessary heterogenous components in a compact package that keeps the system protected and functional, managing excess heat for instance in power electronics or enduring harsh environments such as space.

Week provisional agenda

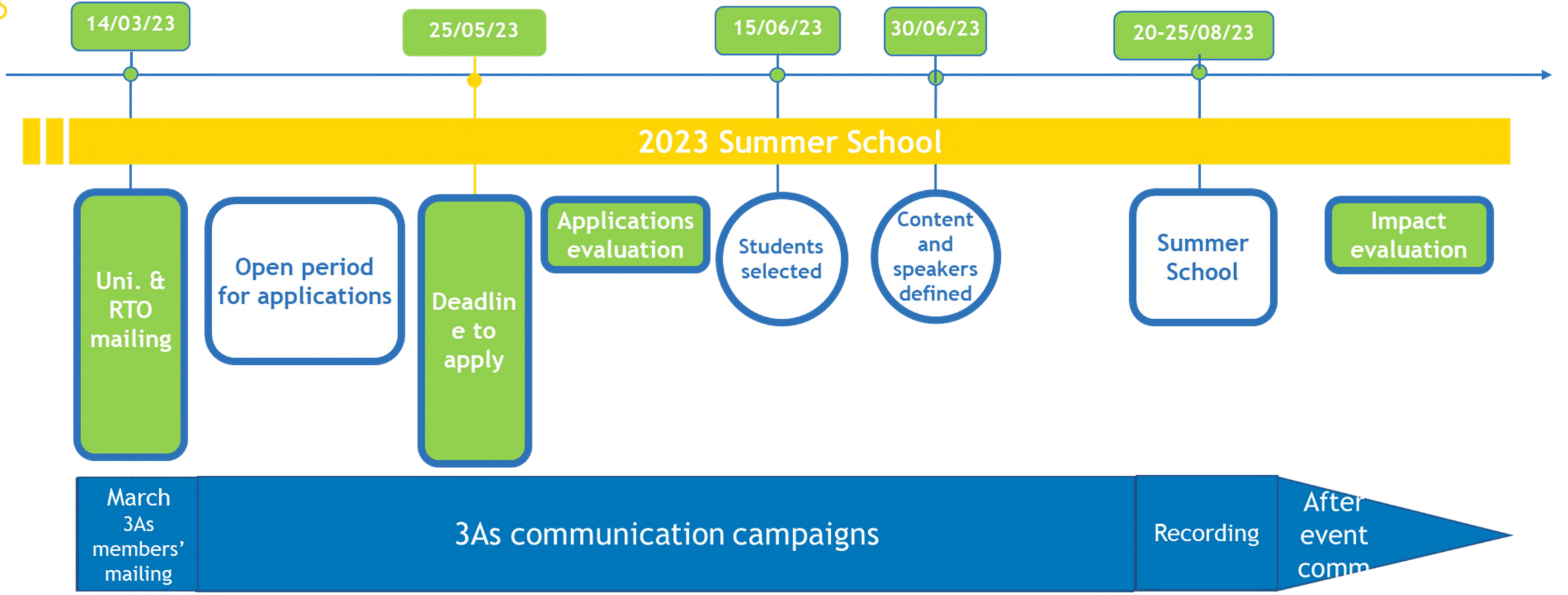


	Sunday 20 August	Monday 21 August	Tuesday 22 August	Wednesday 23 August	Thursday 24 August	Friday 25 August
09:00		Setting the scene	Design talks	Digital systems	Integration Day	Career Testimonies
10:30		Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
11:00		Technology talks	IC Design talks			
12:30		Lunch	Lunch	Lunch	Lunch	Lunch
14:00	Student arrival				Talks & Demonstrators	Student departure
15:30		Demonstrators	Demonstrators	Demonstrators		
16:00						
18:00 – 20:00		Social activity	Social activity	Social activity	Visit and wine tasting	
20:30		Dinner	Dinner	Dinner	Gala Dinner	

Color code

Technology
Design
Digital systems
Integration

Timeline



Fascinating Electronics for a Cool World



More information at
<https://ecscollaborationtool.eu/summer-school-2023.html>



A futuristic digital circuit board with glowing red and blue lines and components. The board is densely packed with various electronic components, including capacitors, resistors, and integrated circuits. The lighting is dramatic, with a strong red glow on the left and a blue glow on the right, creating a high-tech, digital atmosphere. The circuit traces are highlighted in bright red and blue, suggesting data flow or power distribution.

EIT DIGITAL

*We drive towards a competitive digital Europe that is **inclusive, fair and sustainable**.*

We are looking for likeminded partners and collaborators in everything we do.



Co-funded by the
European Union

THE EIT DIGITAL ECOSYSTEM



3000 talent pool

56 universities

350 partners

500 startups

Hub in Silicon Valley

21 offices in Europe

EIT DIGITAL IS AN **IMPACT** ORGANISATION

3000

EIT Digital
Master School
graduates

243

EIT Digital's
deeptech
startup portfolio

€1,3B

Total funds raised
by EIT Digital
supported scaleups

€100M

EIT Digital-led **Strategic
Partnerships** and
collaboration for EU projects

EIT Digital has an ecosystem of 350+ partners and 56 top tech universities, and an EIT Digital alumni network of top entrepreneurial minded tech talents.

EIT Digital is partnership organization. We are creating an innovation ecosystem together with our partners, therefore most of our programs and initiatives are made in collaboration with them.

We are bringing together academia, research and innovation with the aim to build a competitive digital Europe, aligned with the UN Sustainable Development Goals.

Bridging the Skills Shortage in the EU Semiconductor Industry

1. Skills for the Future: Market Trends and Needs
2. How to be Better Prepared
3. Long-Life Learning
4. Innovation and Entrepreneurship

Bridging the Skills Shortage in the EU Semiconductor Industry

1. Skills for the Future: Market Trends and Needs
2. Long-Life Learning: the way to be better prepared



ALL PROS.EU

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Discuss the skills shortage affecting the EU semiconductor industry, explore its relationship with inclusion

17 May 2023 14:00 > 16:30 CEST

Funded by the European Union

Watch the new video and follow our channel

allpros.eu
@allpros_eu
company/allpros-eu

1. Skill for the **FUTURE**: market trends and needs

A 2021 study from the Boston Consulting Group for the Semiconductor Industry Association (SIA) estimates that it would take **more than a decade for regional supply chains** (U.S., East Asia, China, Europe, and others) to shift to **fully self-sufficient local supply chains**.

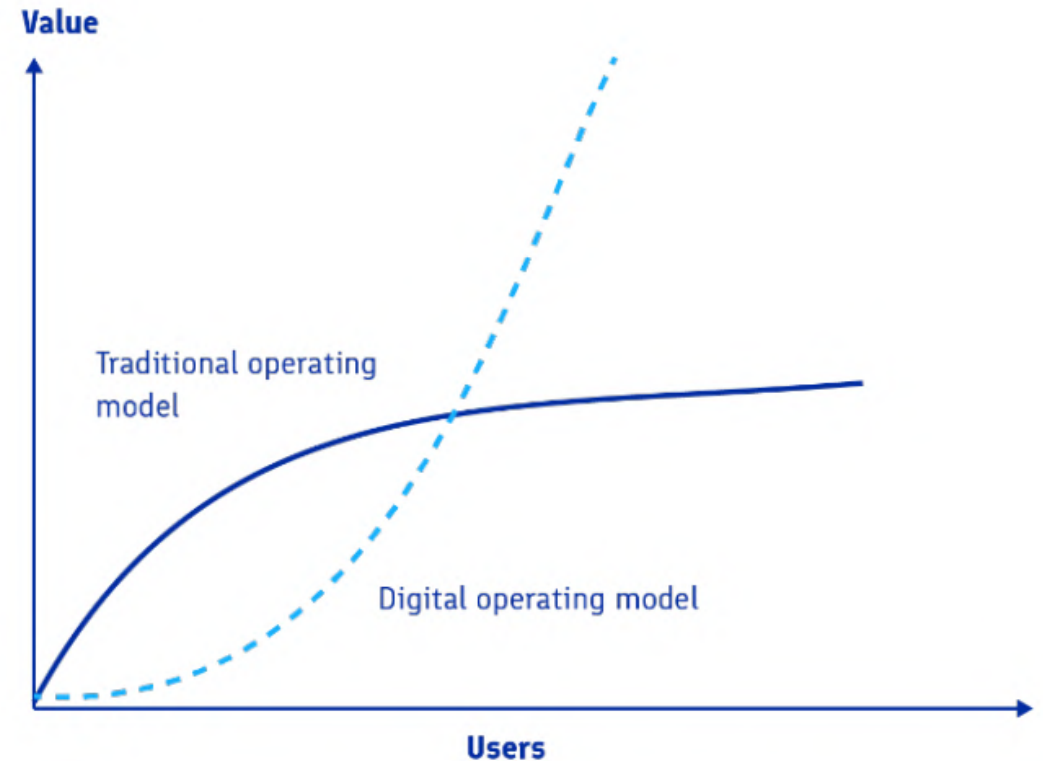


Figure 1. *The collision between traditional and digital operating models* ¹⁰

1. Skill for the FUTURE: market trends and needs

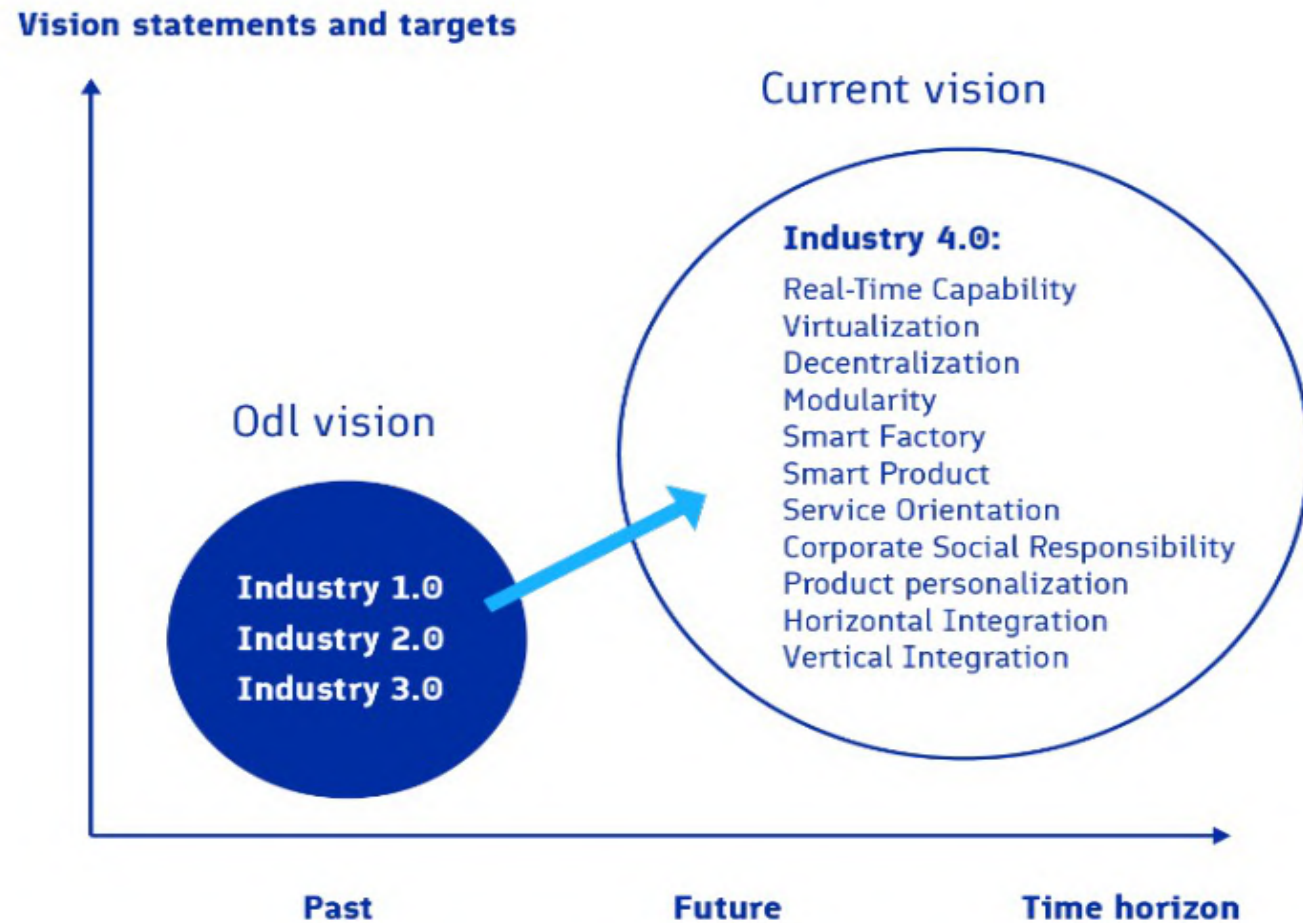
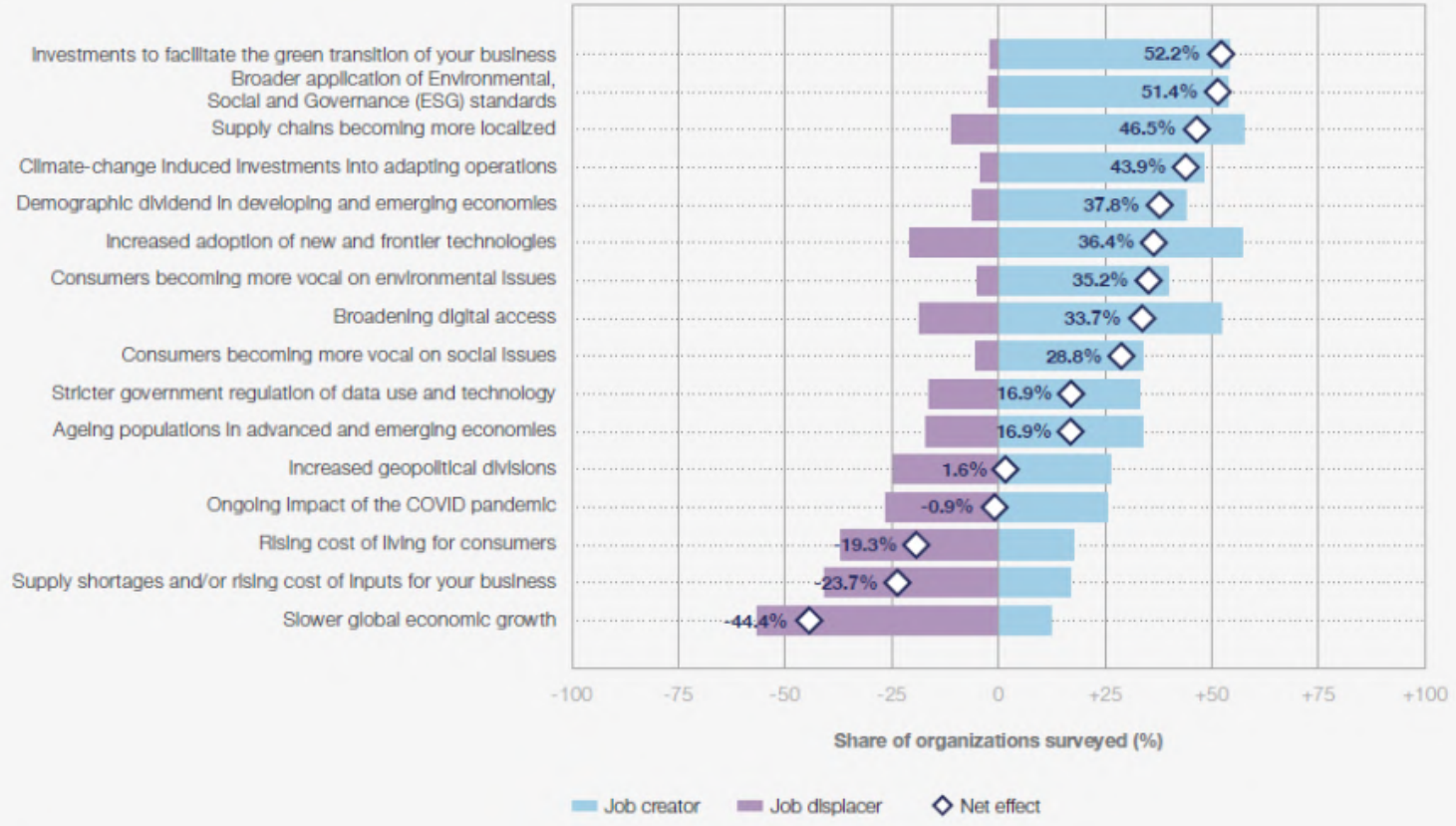


Figure 2. **Old and current vision of industrial development**

1. Skill for the FUTURE: market trends and needs

FIGURE 2.2 | Expected impact of macrotrends on jobs, 2023–2027

Share of organizations surveyed that expect each trend to create or displace jobs, ordered by job creation net effect.
The shares of organizations which expect the impact of these macrotrends to be neutral are not plotted.



Source
World Economic Forum, Future of Jobs Survey 2023.

2. Long-Life Learning: (d)Academy – Semiconductor Industry



(d)Academy POWERED BY EIT-DIGITAL
“Everyone has the right to quality and inclusive education, training and lifelong training”
(Adults aged 25-64, low-qualified adults 25-64, unemployed adults aged 25-64, adults aged 16-74)

(d)Platform - The Place to Reskill -
“eat-as-you-can model, 24 hrs./day, 365/365”, Different subscriptions
Courses pre-loaded by our partners: different topics & different languages for different ages, different skills, etc. –

(d)Master & Doctoral School
Technical Skills for PhD & Masters’ students

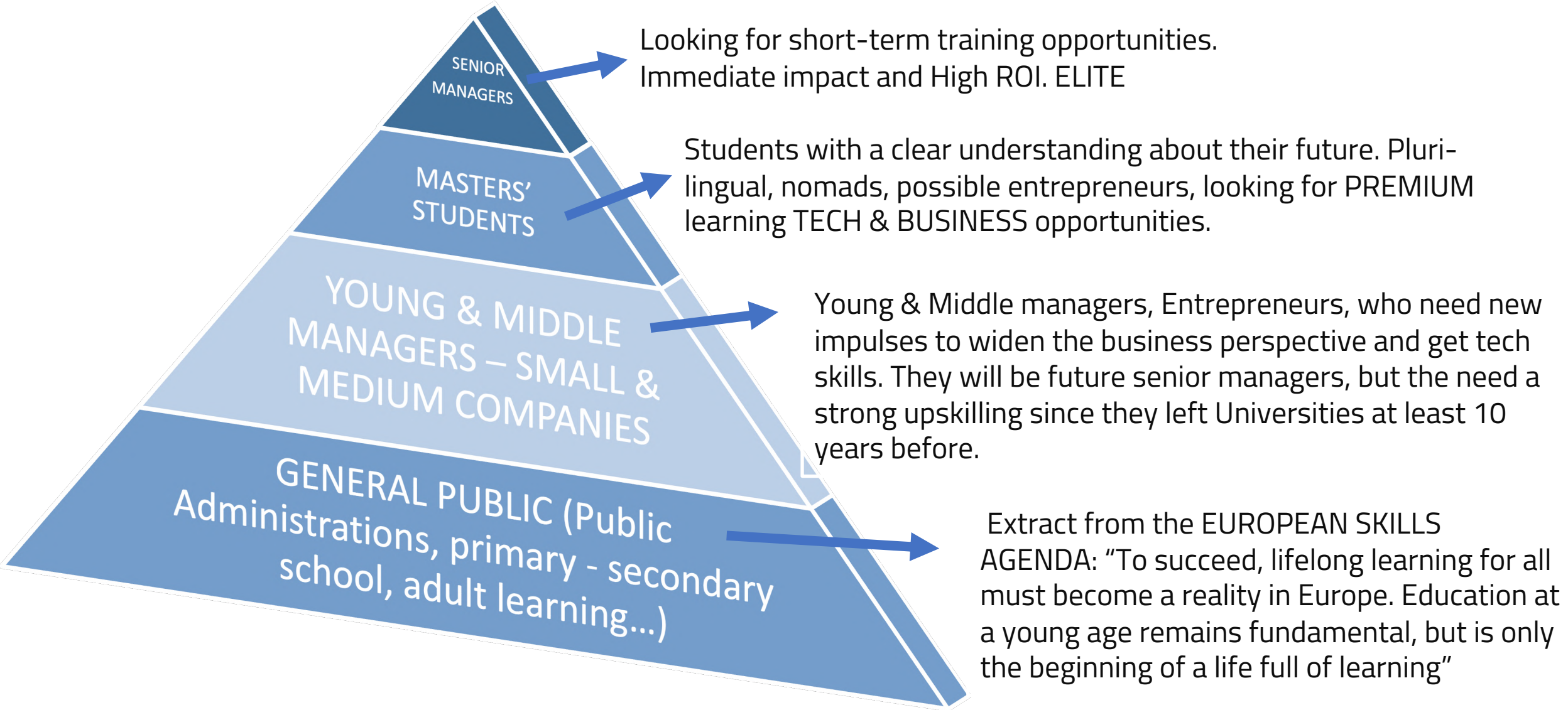
(d)Executive Programs
Tailored Hard and Soft Skills for executive professionals

(d)Summer Programs
Tailored Tech Skills and Fun for Young professionals

(d)Professional Programs & General Public
Tailored Hard Skills for Corporate, young and seniors

(d)Accelerator Innovation & Events
Hard and Soft skills for Entrepreneurs & General Public

2. Long-Life Learning: (d)Academy



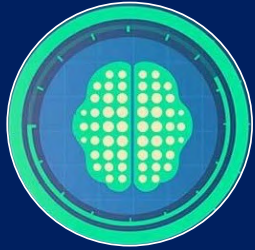
2. Long-Life Learning: (d)Academy



- **Skills** over roles
- **Actions** over medals
- **Circular Learning** over prior experience
- **Flexibility** over control

(d)Academy

POWER SKILLS TACTICAL SKILLS TECHNICAL SKILLS



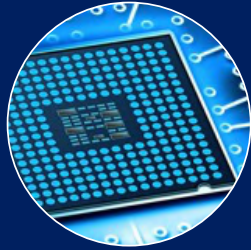
Artificial Intelligence

The application of AI technologies is driving growth at individual, business, and economic levels.



Cyber Security

Cybersecurity is a topic that practically every company and person must tackle.



Semiconductors

Semiconductors are at the heart of innovation and the current industrial revolution.

Power, Tactical and Technical Skills

Power Skills

- Communication and Teamwork
- Leadership
- Productivity
- ...

Tactical Skills

- Strategy and Business Intelligence
- Design Thinking
- Marketing
- Project Management
- Entrepreneurship
- ...

Technical Skills

- Cybersecurity
- Artificial Intelligence
- Big Data
- Embedded Systems
- Digital System Design
- Solid State Devices
- ...

2. Long-Life Learning: (d)Academy

A Digital Skills
Passport
with Personalized
Learning &
Development
Recommendations





Jenny is a Cybersecurity professional with proven experience in developing, maintaining and operating information solutions that meet operational and security compliance requirements.

Jenny Hayes



eit Digital

Register Now in minutes

Wireframes of EIT Digital Academy Platform



FIRST NAME

LAST NAME

EMAIL ADDRESS

PASSWORD

Your Location

COUNTRY

STATE/REGION

CITY/TOWN

POSTAL/ZIP/CODE

Sign up Page

By clicking Join Abodoo you are agreeing to the Abodoo [Terms and Conditions](#) and [Privacy](#)



Hi, Jenny



Learning Matches

Job Application
Matches

Profile Status



Matches



Applications

79%

Profile



Your Profile Engine Room!

You'll need to complete all fields so that you can receive all of your wonderful matches.



11/14 steps completed

1

Expertise

Choose the Industries and Job Categories most relevant to you.

INDUSTRIES

COMPUTING x TECHNOLOGY x

CATEGORIES

COMPUTER/NETWORK SECURITY x

2

Hard Skills

Your complete skill set & experience is essential to matching roles. Be sure to add all relevant hard skills.

Skills	Years of experience	
CYBER SECURITY	4-5yrs	X
SECURITY INFRASTRUCTURE	3-4yrs	X
SECURITY ARCHITECTURE DESIGN	3-4yrs	X
INFORMATION ANALYTICS	2-3yrs	X

Capturing 14+ Profile Essential Data Attributes



Your profile is 79% completed. All changes saved

3

Core Values

Select up to 10 Core Values that best represent you.

Brainstorming ✕ Critical observation ✕ Design ✕ Divergent thinking ✕

Mind mapping ✕ Public speaking ✕ Professionalism ✕ Agility ✕

Conflict management ✕

Start typing (e.g. Communication, Leadership) Add

Missing a specific skill, suggest it [here](#)

Capturing 14+ Profile
Essential Data
Attributes

4

Language

Add your native spoken language and any other spoken languages that you have.

LANGUAGE	LEVEL	
English	Native	✕
Irish	Native	✕
Spanish; Castilian	Intermediate	✕



Your profile is **79%** completed.

All changes saved

Capturing 14+ Profile
Essential Data
Attributes

5

Locality

It's important to know where you are based as some jobs may require travel.

COUNTRY

Ireland

STATE/REGION

Leinster

CITY/TOWN

Dublin

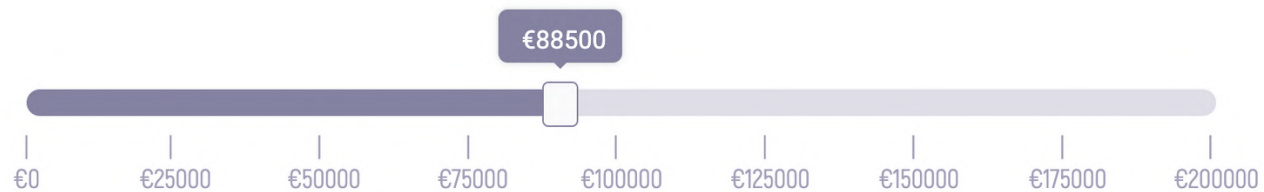
POSTAL/ZIP/CODE

D12 V3

6

Base Earnings

The minimum earnings you are looking for. You will only be matched to roles with this in the range.



7

Work Place

Select all environments where you would be willing to work.



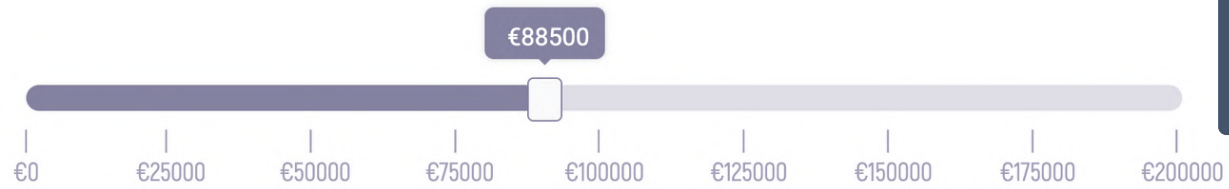
Your profile is **86%** completed.

All changes saved

6

Base Earnings

The minimum earnings you are looking for. You will only be matched to roles with this in the range.



Capturing 14+ Profile
Essential Data
Attributes

7

Work Place

Select all environments where you would be willing to work.

Home Coworking Hot Desk
Office Mobile Combination

8

Employment Type

The type of employment you are looking for. Select all that apply.

Full Time Part Time Flexible Contract



Your profile is 86% completed.

All changes saved

9

Experience

List 3 or more places of work.

Security Consultant

IBM (February 2021 to Present)

[view description](#)

Edit

Delete

Technical Lead

Wipro Limited (2 years 11 months)

[view description](#)

Edit

Delete

Senior IT Security Consultant

Deloitte (1 year 2 months)

[view description](#)

Edit

Delete

[Add Experience](#)

Capturing 14+ Profile
Essential Data
Attributes

10

Education

Select one or more that apply to you.

Degree

Master

Diploma

Other

Your profile is **86%** completed.

All changes saved



10

Education

Select one or more that apply to you.

Degree Master Diploma Other

Big Data Foundations - Level 3

Hadoop Fundamentals - Level 1

Docker Essentials - Level 2

[Edit Certification](#)

Capturing 14+ Profile Essential Data Attributes

11

Benefits

Select all those that you feel are most important (5 max).

Subsidies Career Progression Other Dental

Healthcare Extra Holidays Extra Maternity / Paternity

Pension Retirement Plan Performance Bonus Paid Time Off

Share Options / Equity Training / Education Volunteering / Charity work



Your profile is **86%** completed.

All changes saved

12

About Me

Give an insight into who you are. Keep to a couple of paragraphs and be engaging.

Cybersecurity professional with proven experience in developing, maintaining and operating information solutions that meets operational and security compliance requirements.
Proven ability in designing and leading critical security programs with in depth operational supervision for incidents and emergency disaster recovery.

Core Proficiencies

- Information Security
- Access management
- Cloud Solutions
- Cybersecurity Operations
- Incident and Change Management
- Team Leadership
- System Improvements and Project Design

Capturing 14+ Profile
Essential Data
Attributes

13

Sponsorship Available

Please specify whether you are eligible to work in your selected country or require sponsorship.

Sponsorship

Eligible

Your profile is **86%** completed.

All changes saved





Hi, Jenny



Matches



Applications

86%

Profile

Settings

Recommended Content

What skills and Interests would you like to know more about? Check your matches for Recommended Content to suit your learning and enjoyment.

C-LEVEL SALES X

CYBER SECURITY X

CYBERCRIME INVESTIGATION X

DATA SECURITY X

SALES & MARKETING X

Start typing (e.g. Web Developer, Accountant)

Add

Desired Skills to recommend personalized learning content for a career pathway

Contact Info

Notifications

Recommended

Employment Status

My Account

Speed Test



The candidate can enter as many skills as they want.



Matches



Applications

86%

Profile

Personalized Learning
Content Served to the
candidate

all

matched

recommended

hidden

sort by latest

R



Elevate Your Sales
Skills: Strategies fo...

Recommended for you

R



Sales Mastery
Playlist

Recommended for you

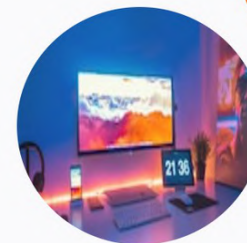
R



Protect Privacy:
Essentials of Gener...

Recommended for you

R



Cyber Security
Awareness Training

Recommended for you



(d) Academy
Individual Learning Account + AI + SKILLS = Personalized Learning Recommendations
and Job Matching

Bridging the Skills Shortage in the EU Semiconductor Industry

Thank you very much



Co-funded by the
European Union



1

Introducing Melexis

<p>INDUSTRY LEADER in</p>	<p>>1900 People 50 Nationalities 18 Sites</p>	<p>>30 years of profitable growth</p>	<p>Edge sensors & drivers: 18+ in every new car</p>
	<p>Top 2 Belgian Value Creator since 2015</p>	<p>70% sales outside Europe</p>	<p>Semi company rooted in Europe</p>

We create innovative micro-electronic solutions for the best imaginable future

Françoise Chombar
Co-founder/Chairwoman
#STEMinist
Connector/Director/Investor

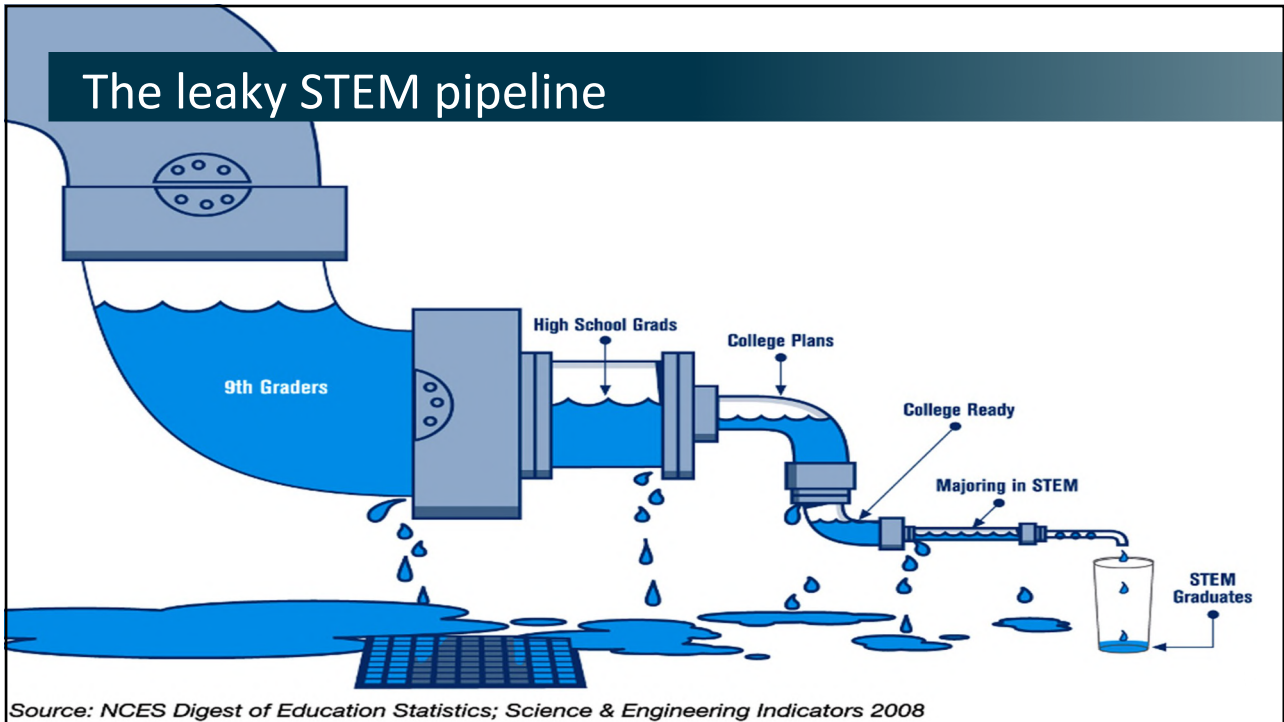
2



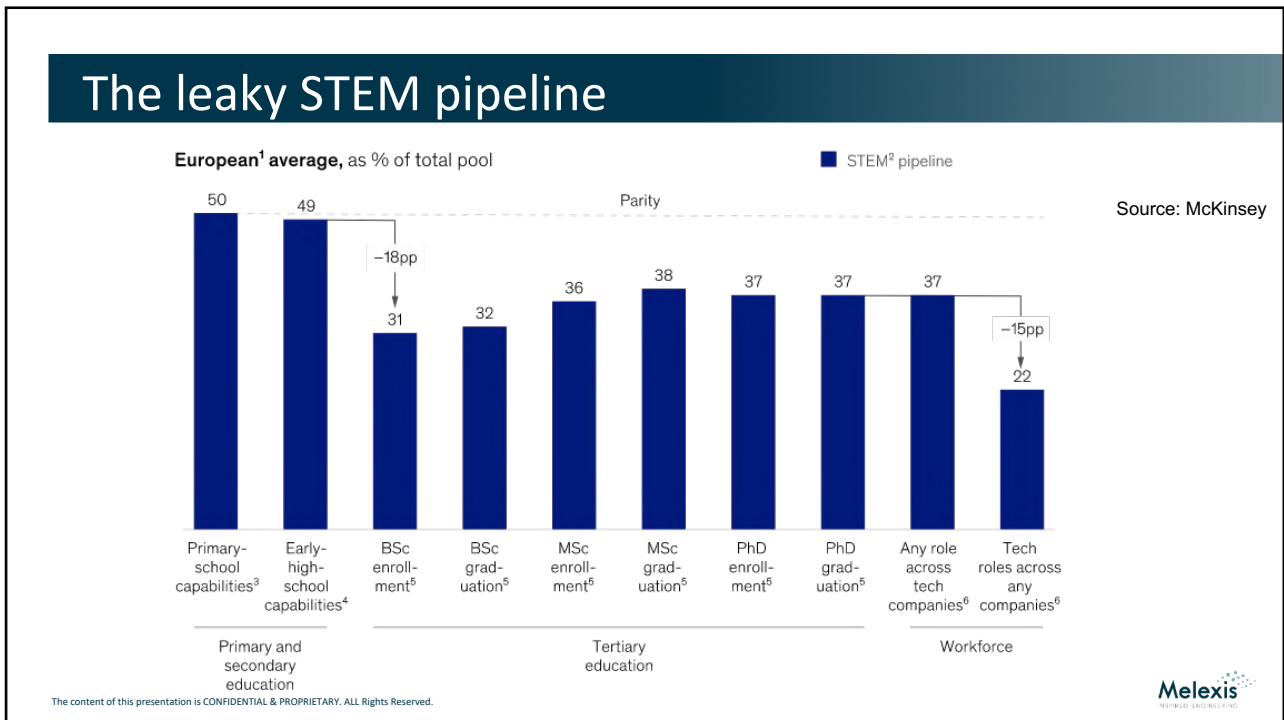
3



4



5



6

Every challenge is an opportunity


A map of Europe is shown in the background, with various shades of green highlighting different regions. The text is overlaid on the map.

Europe cannot win this battle with just half of the talent pool.

Melexis
WORKING ENGINEERING

7

Benefits of DEI (1)

A portrait of Sofie Vandebroek, a woman with brown hair, glasses, and a necklace, smiling.

“Diverse teams create more diverse and **innovative** ideas resulting in better products and services for clients and the world.”

Sofie Vandebroek, former Xerox CTO & IBM COO

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Melexis
WORKING ENGINEERING

8

Inclusive Culture = Key Capability for Innovation

**Inclusion =
Strategic choice
Business imperative**

9

Stating the obvious ...

- % women in (end/potential) customer base ? • _____ %
- % women in sales / after-sales / marketing /
product definition / ...? • _____ %
- How large is the deficit ? • _____ %

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Melexis
INTEGRATED SOLUTIONS

10

Stating the obvious ...

- % wo ~~X~~ n in (end/potential) customer base ? • _____ %
- % wo ~~X~~ n in sales / after-sales / marketing / product definition / ...? • _____ %
- How large is the deficit ? • _____ %

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11

Stating the obvious ...

- % ... in your (end/potential) customer base? • _____ %
- % ... in sales / after sales / marketing / product definition / ...? • _____ %
- How big is your deficit? • _____ %

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12

Benefits of DEI (2)

Extent to which DE&I efforts have contributed to business success (%)

■ To a large extent ■ Somewhat ■ Minimally ■ Not at all

2022



2019



Note: Numbers may not sum to 100%, because of rounding.

Source: Heidrick & Struggles' DE&I survey, March–April 2022, n=420; Heidrick & Struggles' diversity and inclusion survey, August–September 2019, n=412



DEI creates a better (corporate) world

- Diverse teams are smarter, faster & more effective (INSEAD, MIT, MERCER e.a.)
- Companies with more women in leadership positions score financially better (McKinsey "Women Matter", Goldman Sachs, HBR, Catalyst, ...)
- Women score better @ 7/10 leadership skills (INSEAD 2009)

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13

Benefits of DEI (3)

- Strong correlation between
 - Gender balance
 - Competitive advantage
 - GDP
 - Human development (WEF)



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14

The risks of not paying attention to inclusion (1)



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15

Why ?



*“When problems don’t affect us,
we don’t think they’re that
important.”*

Timnit Gebru (Computer Scientist & co-founder black in AI)

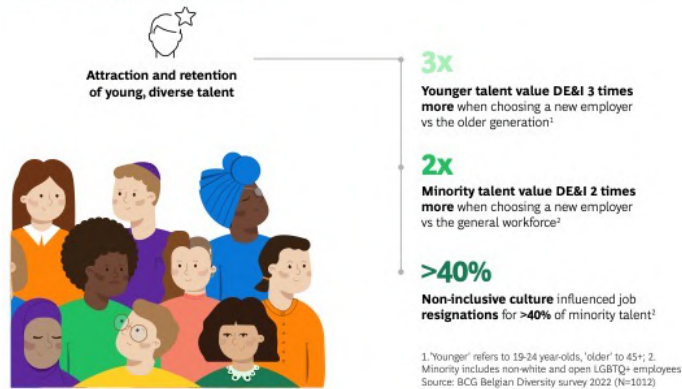
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16

The risks of not paying attention to inclusion (2)

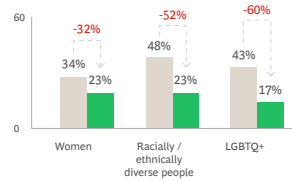
Exhibit 1 | Investing in DE&I within companies is crucial to attract and retain young, diverse talent



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Exhibit 7 | Leaders overestimate the effectiveness of current programs, while challenges remain underestimated

% Respondents who agree obstacles exist for...

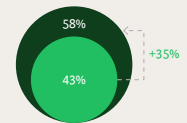


"There are obstacles to [gender, race/ethnicity, LGBTQ+] diversity and inclusion in my company"

■ Respective minority group
■ Hetero men aged 45+

Source: BCG Belgian Diversity Survey Belgium 2022 (N=1012)

% Respondents who agree



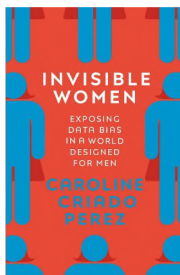
"My company has become more diverse over the past 3 years"

■ Senior level employee
■ Junior level employee

17

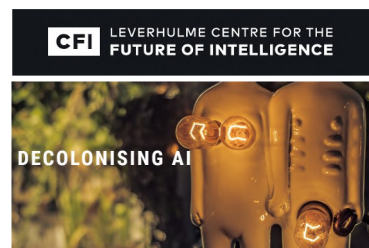
The risks of not paying attention to inclusion (3)

"AI's gender & ethnicity problem: If the developer demographic does not diversify, and if bias is not sufficiently addressed in datasets, AI stands to exacerbate **inequality** and **social injustice** on a global scale."



"When your big data is corrupted by **big silences**, the truths you get are half-truths, at best. And often, for women, they aren't true at all."

"When we are designing a world that is meant to work for everyone, we need women in the room."



Source: Leverhulme Centre for the Future of Intelligence - <http://cfi.ac.uk/projects/ai-narratives-and-justice/decolonising-ai/> (Right)
Invisible Women, Caroling Criado Perez (Left)

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18




19

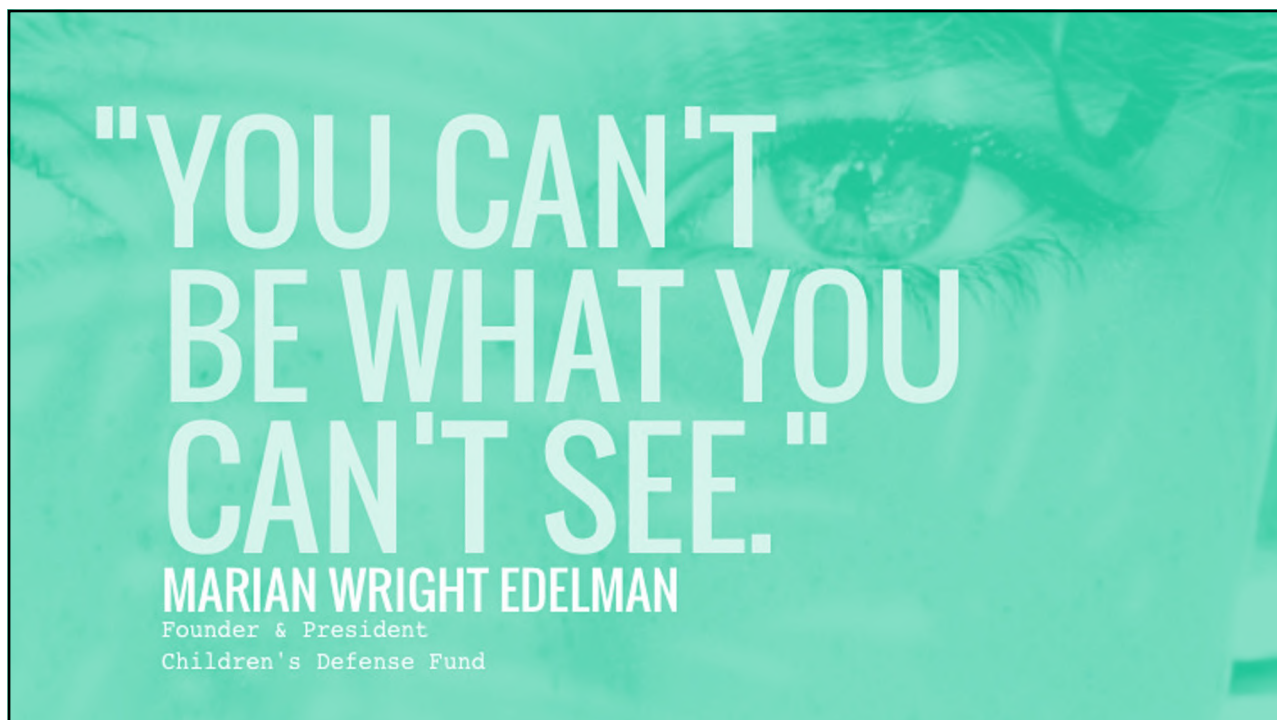
What can we do?

- Address unconscious bias and foster inclusive leadership behavior
- Showcase diverse inspiring role models
- Enhance real-life context interdisciplinary STEM literacy early on

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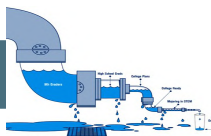



20



21

Showcase diverse inspiring role models





**European Expert Network on
Economics of Education (EENEE)**


**Gender Gaps in Education:
Evidence and Policy Implications**

EENEE Analytical Report No. 46
Prepared for the European Commission

Viarengo, Martina
August 2021

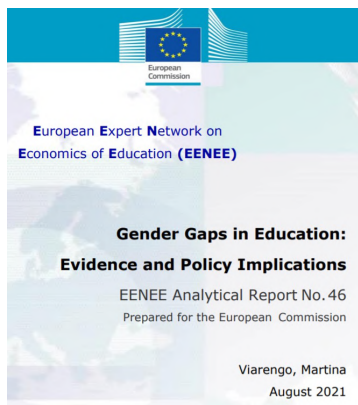
“The exposure to women with successful professional and personal experience in STEM fields is associated with increases in girls’ self-reported mathematics enjoyment, the importance they attach to maths and their beliefs that they can be successful in STEM fields, and thus raises their likelihood of choosing a STEM career”

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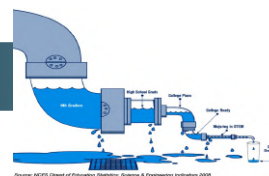


22

Address unconscious bias in education ...



“... girls perform below their potential after being exposed to maths teachers with strong gender stereotypes (i.e. teachers having stronger **pro-boy biases**).”



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... and in the corporate world



*“Diversity
is being invited to the party.
Inclusion
is being asked to dance.”*

Verna Myers, D&I Expert

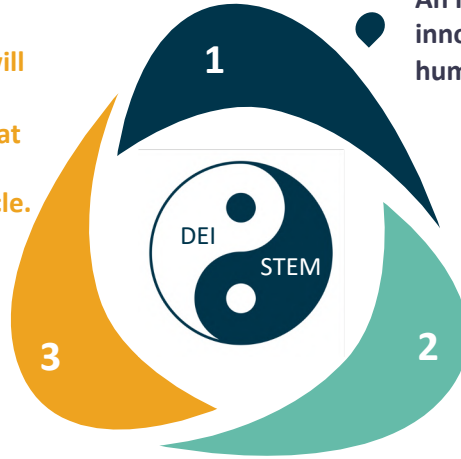
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3 Takeaways

As DEI champion, a strong semi industry will boost Europe's attractiveness as a great place to live and work, creating a virtuous circle.



An inclusive culture contributes to innovation, economic, societal & human development ...

3 concrete actions to stop the STEM pipeline from leaking ...

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Closing the Gender Gap in STEM and ICT

Girls Go Circular & Women and Girls in STEM Forum

Cornelia Crucean | 17 May 2023



Coordinated by





Funded by the
European Union



Girls Go Circular Initiative

- Girls Go Circular (GGC) is coordinated by EIT RawMaterials, with the support of the EIT Community and the Directorate-General for Education, Youth, Sport, and Culture (DG EAC).
- GGC aims to equip at least 40,000 schoolgirls aged 14-19 across all EU Member States with **digital** and **entrepreneurial skills** by 2027 through an online learning programme about the **circular economy**.

+26,000
girls

+700
schools

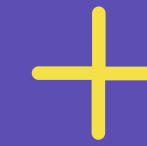
12
countries





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Policy Objectives



01

Digital Education Action Plan

Girls Go Circular contributes to Action 13 – Encourage Women’s Participation in STEM.

03

Closing the Gender Gap in STEM and ICT

The **Women and Girls in STEM Forum**, Girls Go Circular's flagship event, guides annually high-level discussions to advance the EU agenda on gender equality.

02

New European Innovation Agenda

The initiative closely supports EIT’s flagship Deep Tech Talent Initiative.

04

Supporting EIT's efforts in Ukraine

Girls Go Circular is active in several Ukrainian cities, supporting the students affected by war.



Girls
Go
Circular



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Women and Girls in STEM Forum

- The Forum gathers annually researchers, policymakers, and influential stakeholders in STEM and ICT and connects them with the students who participate in Girls Go Circular's learning programme.
- Third edition coming soon: **5 December 2023**.
- The Forum's **Policy Brief** highlights important European policies and initiatives to reduce gender bias in STEM and ICT and empower women in taking an active role in the twin green and digital transitions.





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Policy Insights Towards Gender Equality in STEM and ICT





Main Challenges in Closing the Gender Gap in STEM and ICT



Gender stereotypes in primary and secondary education.



Gender-biased organisational cultures, structures, and processes in the labour market.



Insufficient exposure to female role models.



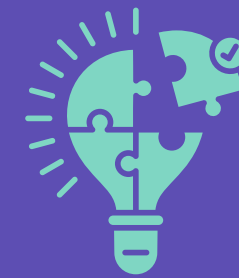
Lack of ample support for female entrepreneurs.



Pathways to Closing the Gender Gap



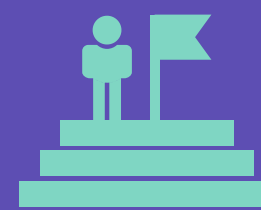
Deconstructing gender stereotypes from early childhood years.



Connecting STEM and ICT to concrete societal challenges.



The paramount importance of community should not be underestimated.



Increased visibility for female role models and their success stories.



The innovation ecosystem and labour market must be targeted.





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Thank You!



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cornelia.crucean@eitrawmaterials.eu



<https://eit-girlsgocircular.eu>



Europaplatz 2, 10557 Berlin



Coordinated by





European
Commission



DIGITAL-2023-SKILLS-04-Advanced Digital Skills
New calls 2023

[#DigitalEuropeProgramme](#)



DIGITAL-2023-SKILLS-04-Advanced Digital Skills

1) Reinforcing skills in semiconductors

2) Boosting digital skills of young people, particularly girls

Opening date	11 May 2023
Deadline date	26 September 2023



DIGITAL-2023-SKILLS-04-Advanced Digital Skills

1) Reinforcing skills in semiconductors

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Objectives



Increase **visibility** of the semiconductor industry at early stages of education



Up-skilling and re-skilling of the workforce.



Provide **support** for Higher Education and VET institutions.



Promote **gender equality** in the semiconductor industry



Scope

All proposals must commit to twofold actions (a) and (b) :

(a) increase the **visibility and the attractiveness** of semiconductors

(b) support the development of

I) Higher Education Network or

II) Vocational Training Network

A joint approach by industry and academia/VET providers



Scope - increase the visibility

- **Communication campaigns** aimed at the public to explain the impact of semiconductors in daily life for the benefit of citizens, society, and environment.
- Events aimed at **secondary school students** introducing basics of chips and knowledge of educational offers, business environment, and future employment conditions – and events like bootcamps, summer/winter schools, hands-on activities at business sites, providing practical experiences.
- Address **gender imbalance** with ambassador programmes, career orientation, scholarship programmes, collaboration with STEMinist initiatives.
- Training for secondary **school teachers** to highlight links between STEM disciplines and the semiconductors sector.



Scope – education/training activities



- identify **industry needs**
- **update courses'** contents and **upgrade laboratories** accordingly
- organize learning activity in **companies' premises** and **involve SMEs** as hosts of students' internship
- enact initiatives addressing **migrants and immigrants** and provide support to attract **female** candidates
- strive to **increase the number** of enrolled students/trainees



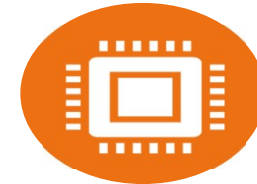
Scope – education activities

Education programmes must focus on one or more of the following areas:

- **Chips Design**



- **Chips Manufacturing**



- **Packaging**

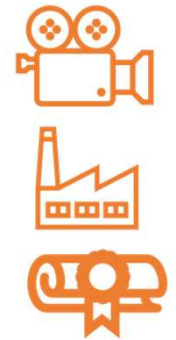




Targeted stakeholders

The types of main stakeholders that are addressed:

- Organizations able to deliver communication events
- Semiconductors businesses
- Higher education institutions and VET providers





Timeline and add info

Call opening	11 May 2023
Deadline for submission	26 September 2023
Evaluation	October to November 2023
Information on evaluation results	December 2023
GA signature	June 2024
Simple Grants	50% funding rate
Duration	48 months
Call budget	EUR 10 000 000
Expected grant	EUR 5 000 000
Minimum number of consortium's members	5 from different eligible countries



DIGITAL-2023-SKILLS-04-Advanced Digital Skills

1) Reinforcing skills in semiconductors

2) Boosting digital skills of young people, particularly girls

Opening date	11 May 2023
Deadline date	26 September 2023



Boosting digital skills of young people, particularly girls (DIGITAL-2023-SKILLS-04-BOOSTINGDIGIT)

What do we want to achieve with this call?

Boost digital skills of young people

Increase chances that pupils, esp. girls, get interested in studying STEM/ICT and/or embarking on a digital career

Raise awareness about the relevance of coding and computational thinking, among pupils, teachers, school leaders and parents

Empower the digital transformation of teachers, educators and schools

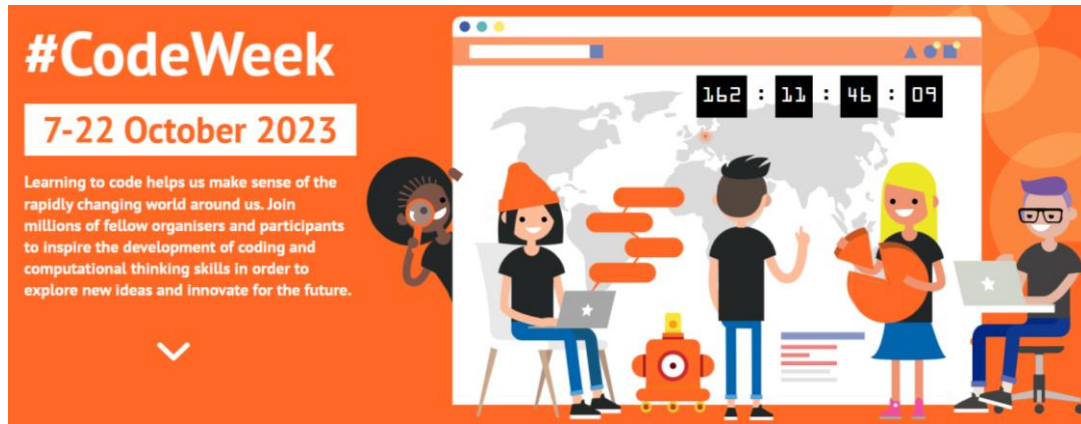
Debunk stereotypes and preconceptions (of girls, but also of their parents and teachers) regarding the accessibility of tech careers



Boosting digital skills of young people, particularly girls (DIGITAL-2023-SKILLS-04-BOOSTINGDIGIT)

Objective 1

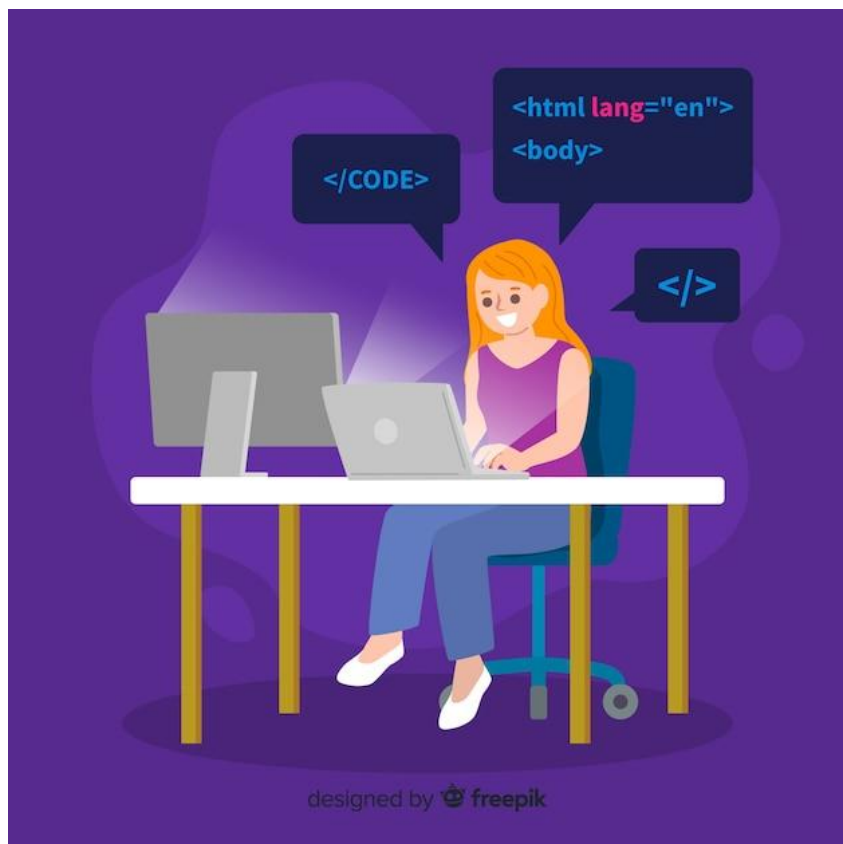
Improve and scale-up the existing EU Code Week
(currently funded until April 2024)



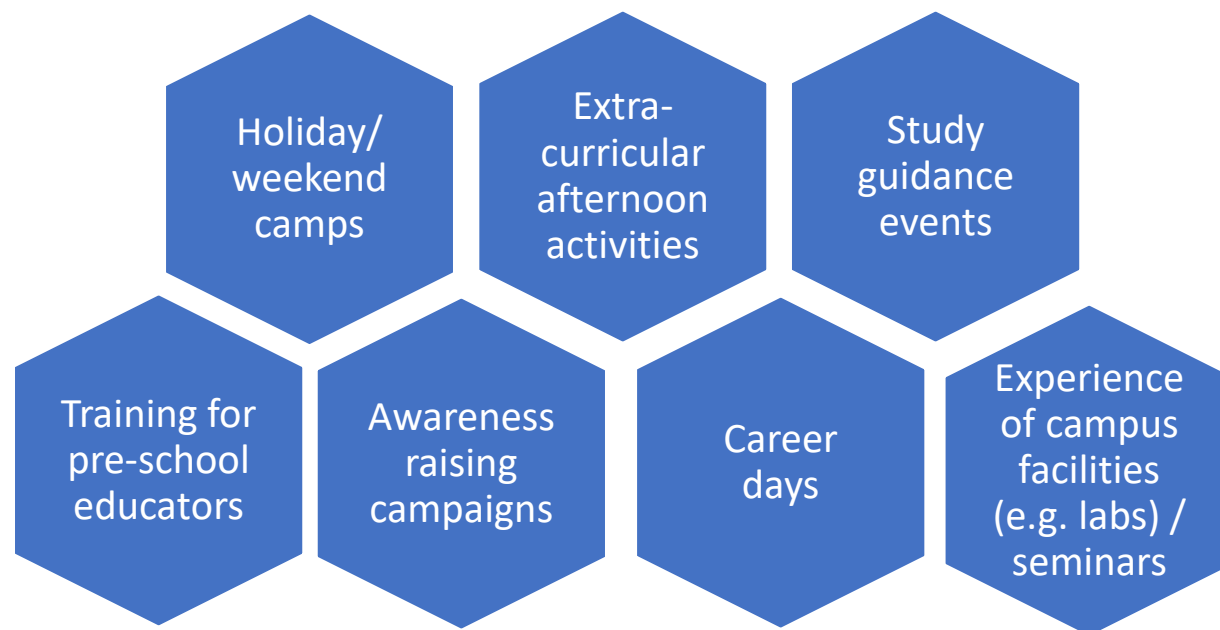


Boosting digital skills of young people, particularly girls (DIGITAL-2023-SKILLS-04-BOOSTINGDIGIT)

Objective 2



To increase the pool of young people, and in particular **girls**, who would ultimately be interested in studying STEM and ICT and/or embarking on a digital career, by running **strategic initiatives** involving the full continuum across all sectors of education, e.g.:





Boosting digital skills of young people, particularly girls (DIGITAL-2023-SKILLS-04-BOOSTINGDIGIT)

What are we looking for?

❑ **One consortium** composed of minimum of **four applicants** from four different eligible countries, each taking over the leading role in one of the following pillars of activities:



Education, pedagogy & community building



Communication and social media channels



Information system development & management



Impact assessment



Boosting digital skills of young people, particularly girls (DIGITAL-2023-SKILLS-04-BOOSTINGDIGIT)

Upcoming events / information days

2 June 2023: Information day for potential applicants
organised by the [Digital Skills and Jobs Platform](#) / HaDEA

Thank you all for the
active participation!

ONLINE WEBINAR

Bridging the skills shortage in the
EU Semiconductor Industry

17 May 2023 14:00 > 16:30 CEST



ONLINE WEBINAR

Bridging the skills shortage in the EU Semiconductor Industry

17 May 2023 14:00 > 16:30 CEST







70
registrants



17 countries
represented

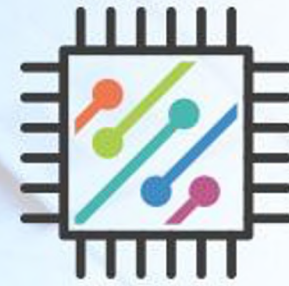


50
organisations
represented

-  **26%** Large Industries & Vertical Industries
-  **22%** SMEs
-  **16%** Trade associations & Clusters
-  **13%** Research, Academia & R&I Projects
-  **6%** Policy Makers & Funders
-  **17%** Other

Principal Takeaways:

- Work together with industry & academia to **offer scholarships** across disciplines & especially in STEM or Engineering disciplines
- Bridging governments, academia & industry to align on the actions and **implement programmes that meet the industry needs**, while being inclusive.
- We should advance from the old educational model by integrating **more experiments and innovation** in the educational system
- Provide training and educational opportunities for **undergraduate students** to inspire them to pursue a Masters programme in the field
- **Industry, governments & academia have to align on long-term goals**
- The key for sustainable partnership is to **cooperate early in the policy design** phase, not just aligning separate initiatives
- **Harmonise** education and increase students mobility
- Instead of competing for talent, we should **unite and collaborate to cultivate a robust, diverse, and motivated talent pool** by fostering cooperative "umbrellas" of collaboration, allowing us to collectively achieve our shared goal
- Attraction of STEM talent, in particular also girls, **starts at the level of schools** – creative solutions and best practices to be shared between member states
- Need to **collect and share data on inclusion in different countries**, as this allows to compare the baseline and understand the needs
- Creating **female STE(A)M networks** is important – alliances, partnerships, workshops, mentoring programs etc.



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