



BUILDING DIGITAL SKILLS

**A DIGITAL EUROPE
NEEDS DIGITAL SKILLS**



BUILDING DIGITAL SKILLS THROUGHOUT EUROPE

Europeans increasingly need to have the skills required for today's digital economy. Europe needs to foster these skills to remain competitive, develop our economy and share the benefits of digitalisation. Almost half of Europe's population, and over a third of its labour force, lack digital skills. In particular, there are not enough specialists for the growing ICT sector.

These projects, selected by the European Commission and the EU Digital Champions, are great examples of what we can do, working together, to strengthen digital skills throughout Europe. They help more people to choose IT careers, particularly young people and women. Others help businesses to digitalise their operations, or increase digital literacy.

The EU is also supporting the Digital Skills and Jobs Coalition, bringing together Member States, businesses and civil society to promote initiatives that help to close this digital skills gap. Any organisation can become a member. It simply has to sign up and contribute to boosting digital skills in Europe.

To spread successful ideas, the Coalition shares initiatives that can be replicated. One way is through the annual European Digital Skills Awards, which highlight outstanding programmes across the EU. Another is through the Digital Skills and Jobs Coalition repository.

We hope these projects can be an inspiration for everyone.

Digital Skills and Jobs Coalition

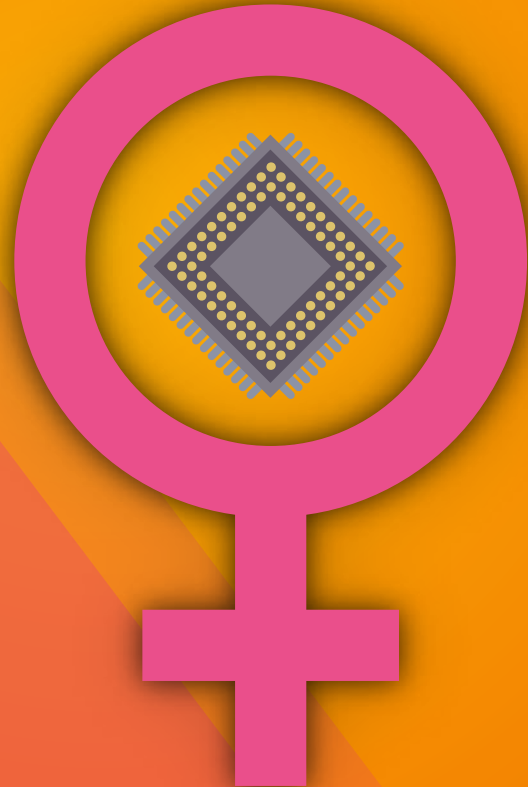
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IT FOR SHE

WOMEN IN HIGH-TECH INDUSTRIES



IT FOR SHE

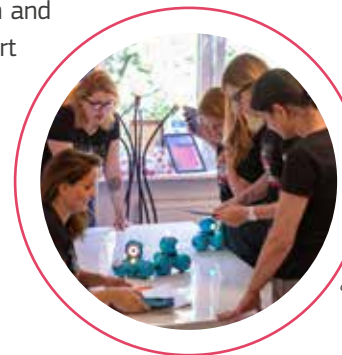
In Poland, the IT for SHE programme is supporting a new generation of women to start careers in the IT and technology sectors. Currently, only one in three employees and one in five entrepreneurs in Europe's tech industries are women. And the IT industry has a growing shortage of specialists.

Four elements make up IT for SHE. Its annual Women in Tech Camp provides programming workshops for top female IT students. In Kids in IT, female volunteers teach coding and technology to 1000 children in small towns each year. Leading technology companies also provide mentors to coach young women for high-tech careers.

The fourth, most recent element is the Perspektywy Women in Tech Summit, the first to be held in November 2018 in Warsaw.

IT for SHE is organised by Perspektywy, a Polish foundation that promotes women's participation in science, technology and mathematics. The programme won the 2017 EU Digital Skills Award in the category 'Digital Skills for Women and Girls'. It is now extending support to women from other countries in Eastern Europe and Asia.

 itforshe.pl



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BIBLIONET

IT ACCESS AT PUBLIC LIBRARIES

BIBLIONET

Many Romanians do not have private access to the internet or a computer. The six-year Biblionet project modernised public libraries throughout the country to bring digital technology to communities.

The project equipped over 2 000 libraries with computers, printers, scanners, software and internet connections. Training centres set up in each of Romania's 41 county library systems taught 4 200 librarians computer skills and how to develop digital services.

The modernisation has brought new life to communities, reaching over 600 000 first time internet users. People can now find information, connect with medical services, look for work more easily or just surf. And more people now come to libraries to use their services.

A finalist in the EU Digital Skills Awards 2016, Biblionet was funded by international non-profit organisations. It was delivered in partnership with national and local authorities, the Association of Librarians of Romania (ANBPR) and public libraries.

ANBPR continues to provide training and materials to maintain libraries as digital hubs that are a valuable contribution to Romania's development.

 anbpr.org.ro



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SCHOOL OF DATA

DATA SKILLS FOR CIVIL SOCIETY

SCHOOL OF DATA

This global network provides data literacy training to civil society organisations, journalists and individuals through workshops, mentoring and online courses.

School of Data aims to help participants understand and use data effectively. Free online courses cover the basic skills for working with data, along with the training required for specific sectors or uses.

in France. School of Data also provides targeted training to organisations such as Transparency International.

The core approach is 'learning by doing', where participants develop their skills by studying real issues. The network trains 'fellows' to develop data literacy programmes for their local communities.

Workshops are organised by local School Of Data practitioners or take place at events such as the International Journalism Festival in Italy and the Data Literacy Conference

Founded in 2012 by Open Knowledge International – a UK-based non-profit – School of Data has trained over 6500 people in its first five years. The network now includes 13 partner organisations and over 100 data literacy practitioners around the world.

 schoolofdata.org

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DIGILYFTET

DIGITALISATION FOR MANUFACTURING SMES



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DIGILYFTET

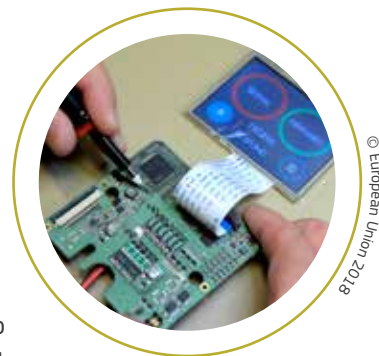
Sweden's Digilyftet project has helped small and medium-sized industrial sector companies overcome barriers to using digital technologies to become more competitive and grow.

Launched by the Malardalen Industry Technology Center (MITC), the project coached SMEs in the importance of investing in digital technologies and to make informed choices on how to take advantage of these.

The project worked with groups of four to five small manufacturers and companies providing services to manufacturers. Workshops provided companies with insight into the opportunities and challenges from digitalisation. Topics focused on issues such as internal communication, communication with suppliers and

customers, and changes to business models. Reflection with other SMEs in networking meetings and coaching sessions allowed companies to find possible solutions, which they then tested in their business.

Digilyftet was financed by the Swedish Agency for Economic and Regional Growth and the EU. Now called Digifuture, its success has attracted further funding to 2019, while its coached self-help approach is being applied to new projects for industry.



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RAILS GIRLS SOFIA

ATTRACTING WOMEN TO PROGRAMMING



RAILS GIRLS SOFIA

Rails Girls Sofia is making technology more approachable for women in Bulgaria. The programme runs free, two-day workshops for women and girls on the basics of Ruby on Rails, a programming framework used to develop web applications. Aimed at women with zero or minimal programming and technology experience, Rails Girls Sofia aims to make learning fun, exciting and useful.

Participants receive an introduction to design, prototyping and web programming from volunteer instructors. Once women have a taste for technology, the programme orients them to online materials to take their design skills further. Former participants can also continue work in twice-weekly study groups.



© Vladimir Kabanov Petrov

Since the Sofia group started in 2013, it has trained 1000 women through 14 workshops and over 300 study groups. Around 15 alumni are now working full-time as professional software developers, while many others are using the acquired skills in their careers.

The programme is part of the global Rails Girls community, which fosters technology skills among women. Rails Girls Sofia events are sponsored by IT and events companies, while the programme has the support of the Bulgarian Digital National Coalition.

 railsgirls.com/sofia.html

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REFUGEES

DIGITAL TRAINING FOR REFUGEES



REFUGEEKS

This programme in France has adapted web developer training to help refugees to find a job and better integrate into society. For employers, the programme provides skilled staff, reducing the national shortage of professional website developers.

During the programme refugees join other students in a seven-month technology course, with up to four refugees in each class of 24. All learn digital skills, while refugees also experience French life and practice their French with the other students.

In addition, refugees receive 300 hours of French language courses. Social support is also provided to help refugees with practical matters such as housing.

Funded by social enterprises, the courses are free of charge. Vocational training provider Simplon gives the technical part of the course. Language lessons are provided by the Alliance Française. Business partners help participants to find employment after the course.

Around 60 refugees participated in the Refugeeks pilot in Paris. About two in three found jobs or took additional training. Simplon is now expanding refugee integration to its courses across France.



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 simplon.co/refugeeks-fr

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**ITALY ENHANCES DIGITAL
SKILLS FOR WORK**

STRENGTHENING E-GOV SERVICES FOR BUSINESSES





ITALY ENHANCES DIGITAL SKILLS FOR WORK

The Italian Union of Chambers of Commerce – Unioncamere – has launched an e-Gov training and certification scheme for staff at local Chambers of Commerce. This scheme develops employees' ability to plan, develop and operate electronic services, for simpler, more open interaction with the businesses they serve.

The course has two phases. The first provides 32 hours of face-to-face and online training on the main Chamber of Commerce processes relevant to companies. These can include digitalised company registers, one-stop shops and electronic invoicing.

A second phase enhances and certifies digital skills in ten areas, with digital transformation, project management, data, digital technology and security as priorities. Here participants follow 20 hours of online training then take an exam.

Just over 300 staff registered for the first phase in the pilot course. Almost 160 followed the second phase, with around 70% obtaining certification.

Another course for 100 staff is planned. Unioncamere is also sharing its experience with the Italian Department of Public Administration.

 unioncamere.gov.it

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MEDIAMASTERS GAME

MEDIA LITERACY FOR CHILDREN



MEDIAMASTERS GAME

The project launched an interactive media literacy game played online and offline every November during Dutch Media Literacy Week. MediaMasters is designed for students aged 10-12 years, who can play the game at school and at home. The game raises awareness of issues such as social media netiquette, programming and coding, cyberbullying, blogging, fake news and online collaboration.

The game challenges players to use and advance their media skills, learning from each other. They collaborate to solve media-related problems, work on assignments, co-create media content and discuss media literacy themes. Parents can also participate and develop their own media literacy skills through the game.

Around 150 000 children play the MediaMasters Game each year. Classes can also join the MediaMasters Club to access extra assignments throughout the year.

Co-financed by the EU, the game is developed and managed by Mediawijzer.net, a Dutch network for media literacy. Belgian organisation Mediawijs has adapted MediaMasters for its own media literacy game, De Schaal van M.

 [mediamasters.nl](https://www.mediamasters.nl)



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MAKE IT WORK

FAST TRACK TO A SECOND CAREER IN IT FOR GRADUATES

MAKE IT WORK

The Make IT Work programme in the Netherlands is training non-IT university graduates for new careers in IT. In parallel, employers participating as partners in this fast-track training gain access to the high-quality specialists they need to provide services and grow.

The programme offers students an 11-month course to become cyber security experts, software engineers, software engineers for media, or business data analysts. Programme participants benefit from an intensified theoretical course, six months of work experience with a business partner and an end-of-course job fair.



At the end of the training, most employers offer their participant a full-time permanent contract. Participants can also attend a Make IT Work job fair to look for work with other companies.

The programme was set up by the Amsterdam University of Applied Sciences and Dutch companies in collaboration with the Dutch government and the Amsterdam Economic Board, a business-education-government partnership for Amsterdam's development.

 it-omscholing.nl

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