



## **Session 6**

**ESCO : Occupations and Skills.  
New Skills hierarchy. Uses of  
ESCO skills for comparison of  
qualifications and matching**

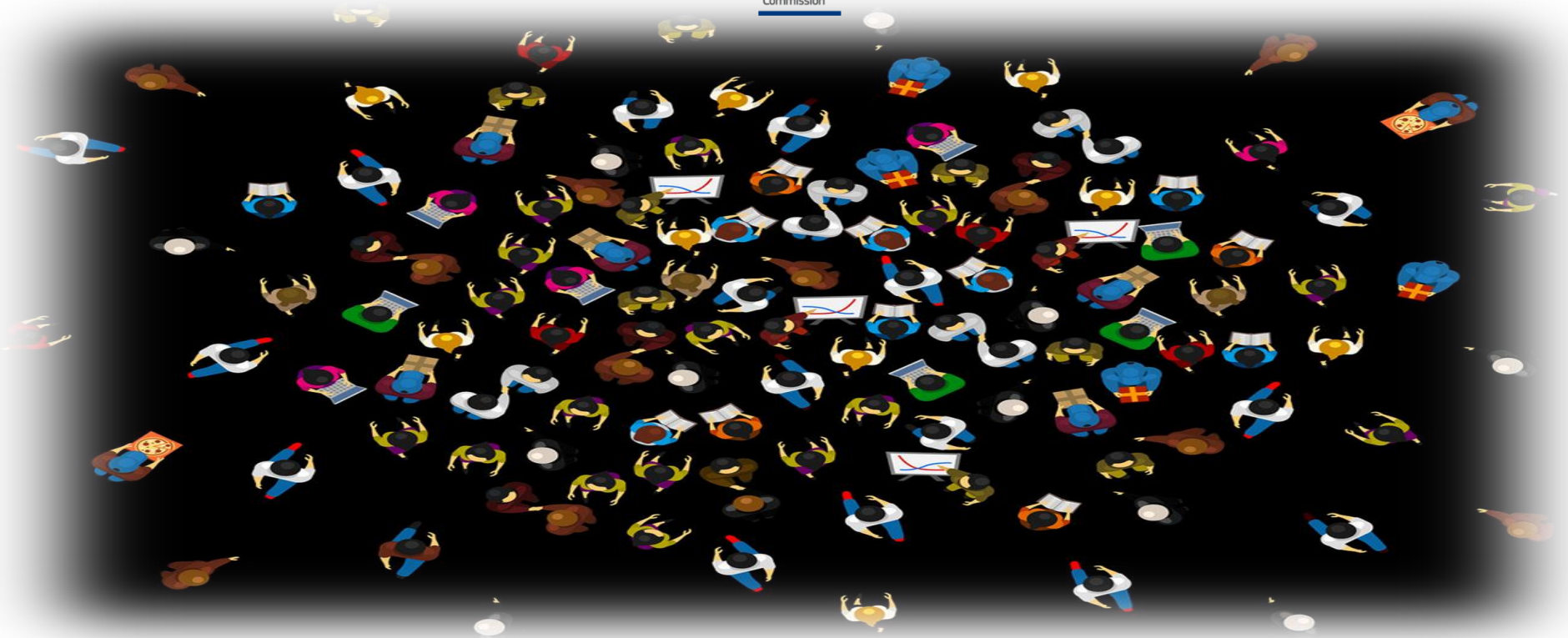
**Webinar 10/12/2020, ETF**



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What is ESCO?

**carouse** *v* to drink and  
drinking party.

**carousel** (kar-roo-sel) *n*  
or for luggage at an airport or  
projector. 2 US & Canada a merry-go-round.

**carp**<sup>1</sup> *n*, *pl* **carp** or **carps** a large freshwater food  
fish.

**carp**<sup>2</sup> *vb* to complain or find fault. **carping** *adj*, *n*

**carpal** *n* a wrist bone.

**car park** *n* an area or building reserved for  
parking cars.

**carpel** *n* the female reproductive organ of a  
flowering plant.

**carpenter** *n* a person who makes or repairs  
wooden structures.

**carpentry** *n* the skill or work of a carpenter.

**carpet** *n* 1 a heavy fabric for covering floors. 2 a  
covering like a carpet: a carpet of leaves. 3 on the

**carpet** *Informal* being or about to be reprimand-  
ed. 4 **sweep something under the carpet** to  
conceal or keep silent about something that one  
does not want to be discovered. **cover with a carpet** or a covering

carrying messages  
**carrion** *n* dead  
**carrion crow**  
with a complete

**carrot** *n* 1 a  
ble. 2 some

**carrotty** *adj*

**carry** *v*

place  
for e

a d  
ca

ca

in  
or

om-  
pro-  
fes-

made of

## Why ESCO?

**Problem:** National systems cannot "talk" to each other

**Result:** Jobs are not filled; education and labour market do not always understand each other

**Solution:** Common reference language



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ESCO as a common reference language



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# ESCO in EURES



# EURES

The European Job Mobility Portal

European Commission > EURES > Home

## PARTNER SITES

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Advanced search

We are committed to protecting your personal data and have updated the data protection statement and the specific conditions for Skip jobseekers and employers. You can access it [here](#).

EURES. The European Jobs Network.

## Explore your European potential.

- 1,641,966 job vacancies
- 402,938 CVs
- 12,546 Employers
- 1,005 EURES Advisers

[HOW CAN WE HELP YOU ?](#)



## I'm a Jobseeker.

[SEARCH FOR A JOB](#)

You can also:

[Create EURES account](#)

[Create your CV online](#)

[Create your Skills Passport](#)

[Search for youth opportunities](#)

[Contact EURES Adviser](#)

[What can EURES do for you?](#)

## I'm an Employer.

[FIND CANDIDATES](#)

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[What can EURES do for you?](#)



## ESCO & EURES

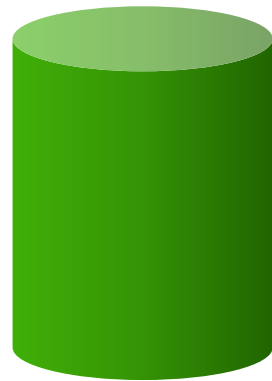
- New EURES Regulation 2016/589/EU
- Exchange of job vacancies and CVs/job applications
- Art. 19 (3)

*"The Commission shall adopt and update, by means of implementing acts, the list of skills, competences and occupations of the European classification."*

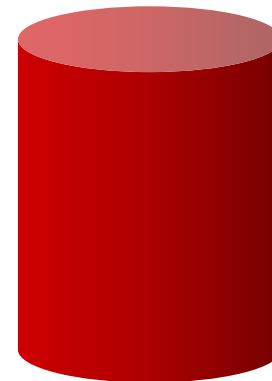
- Member States will adopt the European classification or map their national standards to it

# ESCO

## European Skills, Occupations and Qualifications



3 000  
Occupations



13 500  
Skills + Knowledge



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## 📄 OCCUPATIONS

- > 0 - Armed forces occupations
- > 1 - Managers
- > 2 - Professionals
- > 3 - Technicians and associate profe...
- > 4 - Clerical support workers
- > 5 - Service and sales workers
- > 6 - Skilled agricultural, forestry and...
- > 7 - Craft and related trades workers
- > 8 - Plant and machine operators an...
- > 9 - Elementary occupations

# Occupations

**2942**  
occupations

The occupations pillar is one of the three pillars of ESCO. It organises the occupation concepts in ESCO. It uses hierarchical relationships between them, metadata as well as mappings to the International Standard Classification of Occupations (ISCO) in order to structure the occupations.

Each occupation concept contains one preferred term and any number of non-preferred terms and hidden terms in each of the ESCO languages.

Each occupation also comes with an occupational profile. The profiles contain an explanation of the occupation in the form of description, scope note and definition. Furthermore, they list the knowledge, skills and competences that experts considered relevant terminology for this occupation on a European scale.



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## SKILLS/COMPETENCES

- > A - attitudes and values
- > K - knowledge
- > L - language skills and knowledge
- > S - skills

# Skills

**13485**  
**skills /**  
**competences**

The ESCO skills pillar distinguishes between i) skill/competence concepts and ii) knowledge concepts by indicating the skill type. There is however no distinction between skills and competences. Each of these concepts comes with one preferred term and a number of non-preferred terms in each of the 27 ESCO languages. Every concept also includes an explanation in the form of description.

The skills pillar of ESCO contains 13,485 concepts structured in a hierarchy which contains four sub-classifications. Each sub-classification targets different types of knowledge and skill/competence concepts:

- Knowledge
- Skills
- Attitudes and values
- Language skills and knowledge



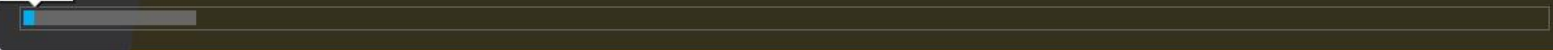
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# ESCO

ESCO portal redesign



00:02



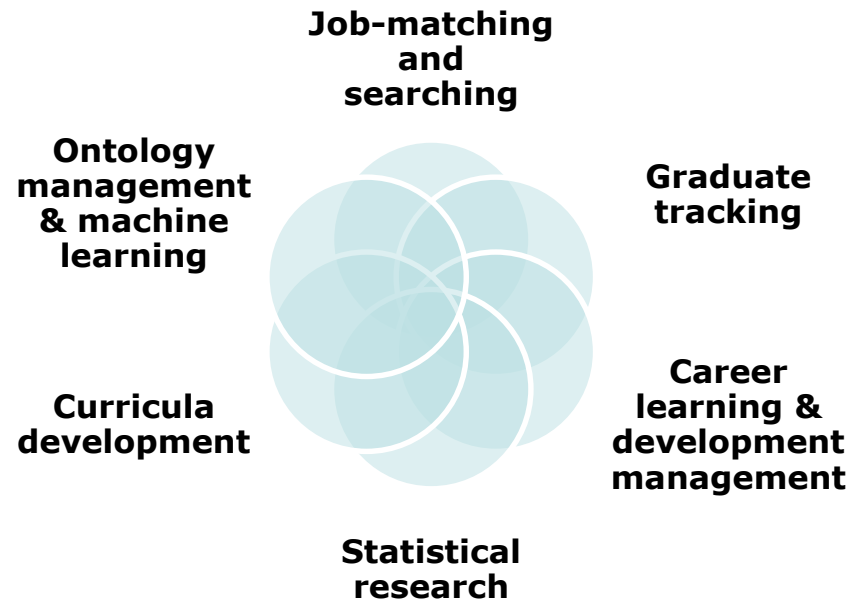


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How can ESCO be used?

# ESCO in digital applications: use cases





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## Use of ESCO by EU services

**Job-  
matching &  
searching**

EURES



**Job-  
matching;  
career  
learning &  
development  
management**

EUROPASS



**Career  
learning &  
development  
management**

DG HR-EU  
Learn



**Statistical  
research**

CEDEFOP -  
OVATE



**Job-matching;  
Career  
learning &  
development  
management**

DG EAC – EIT  
Inno-energy



**Skills  
assessment**

EU 3<sup>rd</sup>  
country  
nationals tool





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# europass

Take the next step

Your free, personal tool for learning and working in Europe.



Online job vacancies  
and skills analysis  
A Cedefop pan-European approach



VINNUMÁLA  
STOFNUN



HOUSE OF SKILLS



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## ESCO supports start-ups & SMEs

**boosters**  
SKILLMAPPER

**Joblift**

**opening**

**SkillsBoard**

**Skilllab**

**ACTonomy**

**ForeAmmatti**

**myXtramile**



**ODEM**

**milchundzucker**  
TALENT ACQUISITION • TALENT MANAGEMENT

**NALANTIS**

MAKING DATA UNDERSTAND PEOPLE

**Certif-ID**  
the dedicated skills community



**Open Badge  
Factory**



## The ESCO skill hierarchy



## Why a skill hierarchy?

- ❖ Mapping of national skills classifications to ESCO
- ❖ Competence-based job matching
- ❖ Compiling CVs and job vacancies
- ❖ Drafting of job descriptions, assessment of candidates' skills etc.
- ❖ Design of educational curricula and drafting of learning outcomes
- ❖ Suggestion of training and learning opportunities
- ❖ Annotating qualifications with ESCO skill and knowledge concepts
- ❖ Creating skill self-assessment tools
- ❖ Big data analysis of job vacancies
- ❖ Career guidance and other HR services

# Development of the hierarchy and allocation of ESCO skills

2019

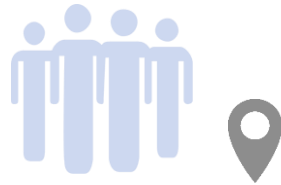


Experts



End 2019

2019



ESCO team



Beg 2020

<b>K</b>	<b>Knowledge</b>
<b>S</b>	<b>Skills</b>
<b>S01</b>	Communication, collaboration and creativity
<b>S02</b>	Information skills
<b>S03</b>	Assisting and caring
<b>S04</b>	Management skills
<b>S05</b>	Working with computers
<b>S06</b>	Handling and moving
<b>S07</b>	Constructing
<b>S08</b>	Working with machinery and specialized equipment
<b>A</b>	<b>Attitudes and values</b>
<b>A1</b>	Attitudes
<b>A2</b>	Values
<b>L</b>	<b>Language skills and knowledge</b>

## Sources

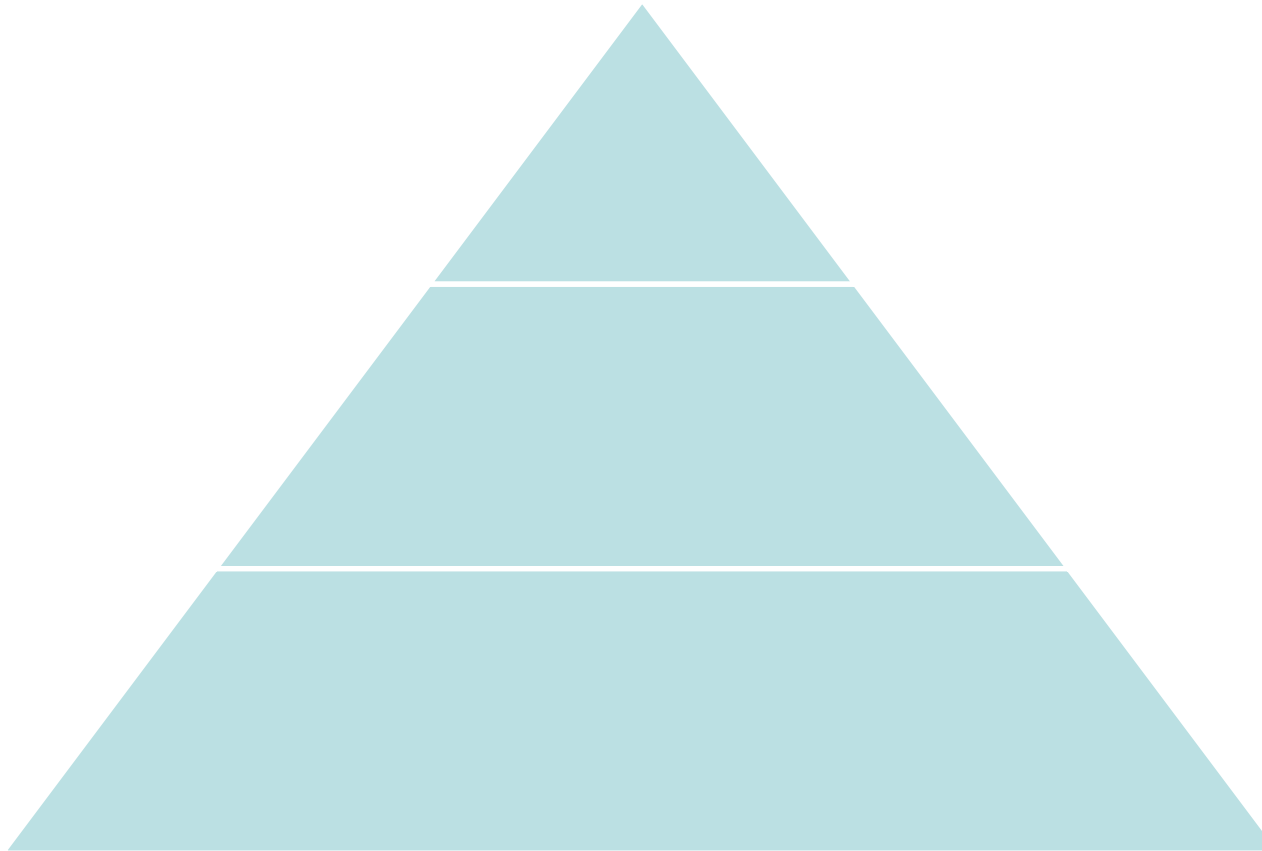
### Skills

- Canadian Job Bank
- O\*NET

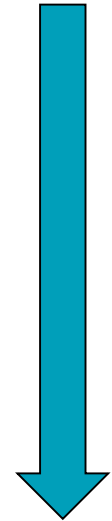
### Knowledge

- ISCED-F

## 3-level skill hierarchy



**Broader**



**Narrower**

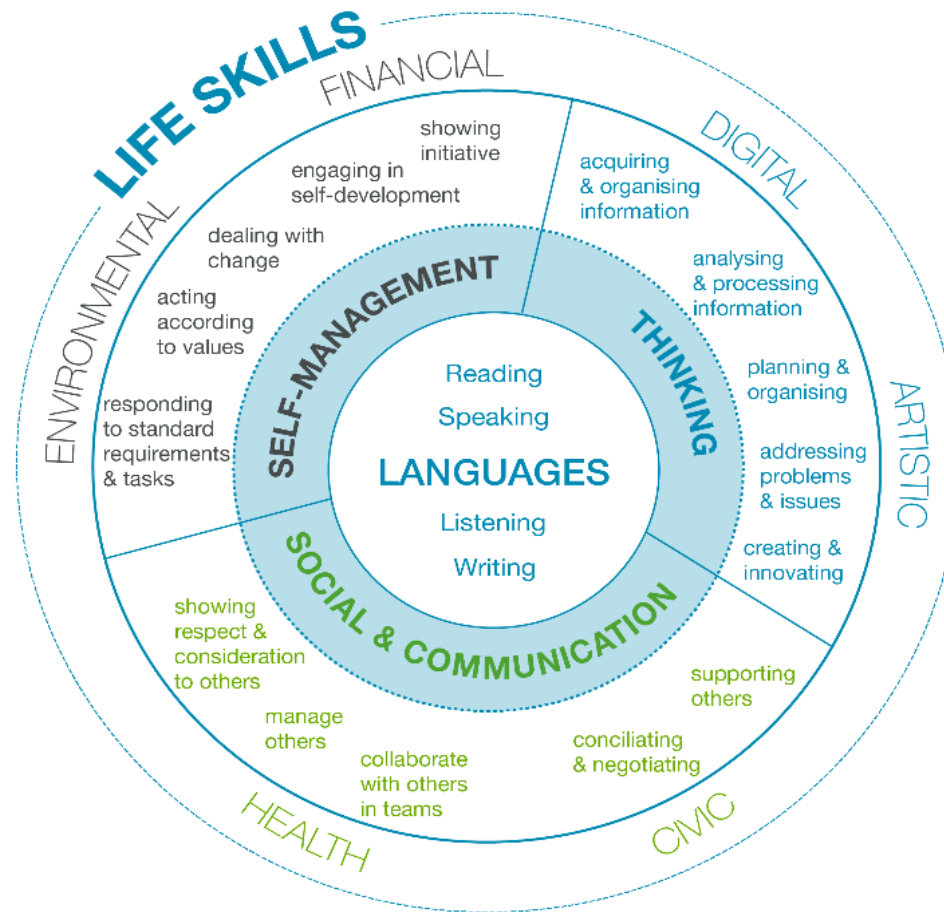
## Basic elements of the hierarchy

- Mono-hierarchical structure;
- Combination of both occupation-specific and transversal skill categories;
- Sector-independent

## Why is a skill hierarchy important when matching learning outcomes to skills?

- Find skills easier
- Free to determine the level depending on the granularity of the curriculum. If not able to match learning outcomes to skills, the user can match to the higher level (skill group).

# New list of transversal skills





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Continuous improvement of ESCO

## Why ESCO needs to be updated

Ensure ESCO is fit-for-purpose:

- Changes in the labour market;
- Changes in education/training;
- Changes in terminology;
- Changes in the requirements of IT applications;
- Correction of any identified issues.



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**Uses of ESCO skills for comparison of qualifications and matching**

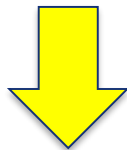
## Increase transparency

**Better understanding** of the scope of qualifications and their relevance to the labour market.

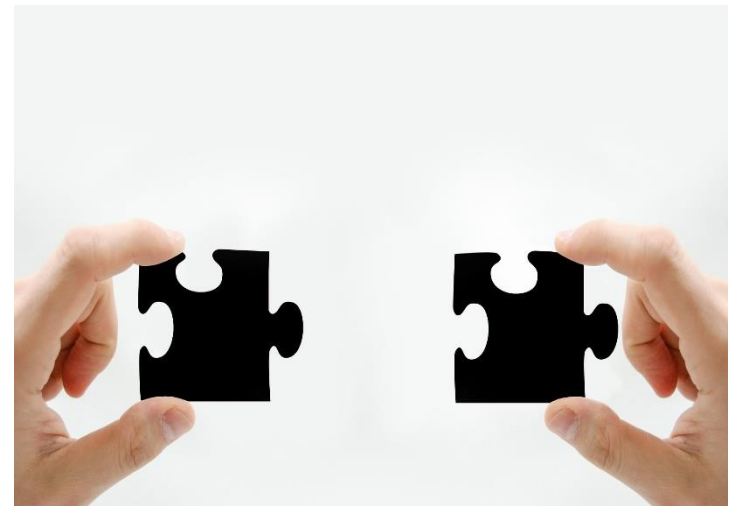


## Facilitate matching of CVs with job vacancies

Job matching providers, matching algorithms and career counselors can use information of skills associated to qualifications to **assess candidates' profiles**



Individuals improve chances on labour market through **better matching**



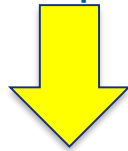
## Feedback loop

Strengthen the feedback loop  
between education/training  
institutions and labour market  
stakeholders

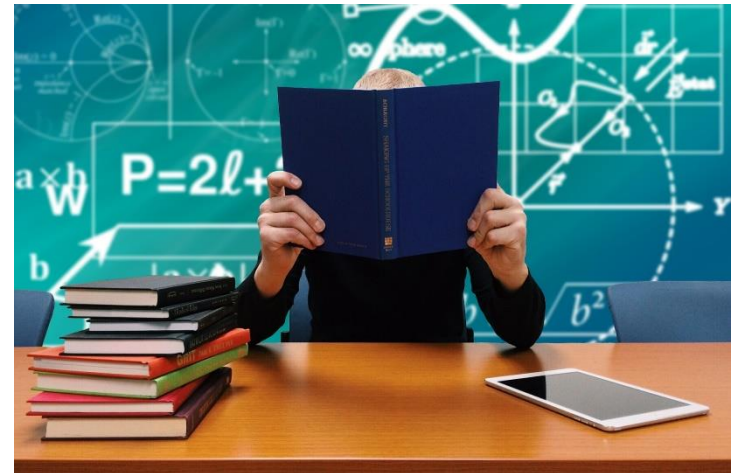


## Provide suitable training, learning and job opportunities

Users can, on the basis of their own skills needs, identify and receive suggestions on relevant education and training offers and qualifications



Indirect link between qualifications and occupations



# Provide suitable training, learning and job opportunities

Me ▾ My Skills My Interests Library Applications



**Johanna Smith**  
"Keep calm, take photos"  
English ▾

I'm interested in photography, people and nature. I'm a passionate photographer since the age of 9, when I got my first camera. Today,...

[View full Profile](#)

[Create a CV](#)

[Create a Cover Letter](#)

**My Applications**

**My Library**

## You may be interested in...

Update your profile, skills and interests to receive tailored jobs and courses

[See my favourites](#)

### Jobs

		
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### Courses

		
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### My Skills

[+ Add new skill](#)

protect ICT devices | adapt to change |  
implement anti-virus software |  
implement a virtual private network

### My Interests

[+ Add new interest](#)

Photography teacher | Adobe Lightroom | French |  
Teach English street children in Mexico |  
Photojournalist | Portuguese

## Learning outcomes linking to ESCO skills pilot

- ❖ Vision: create a tool for matching any type of text with skills
- ❖ Objective: how to link skills using technology
- ❖ Pilot: combined approach of tool and human intervention

# Learning outcomes linking to ESCO skills pilot

## 1<sup>st</sup> phase

Jun-Dec 2019

5 participants: PO, NL, SL, RU, LV

1st version of the algorithm (simple)

## 2<sup>nd</sup> phase

- Sept 2020 – Dec 2020
- 10 participants: FR, IT, BE, CZ (observer) plus 5 before, ETF, IDB, ETUC (observer)
- Improved algorithm/tool
- Skills hierarchy incl.
- Jan 2021: webinar to present the improved version of the tool



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