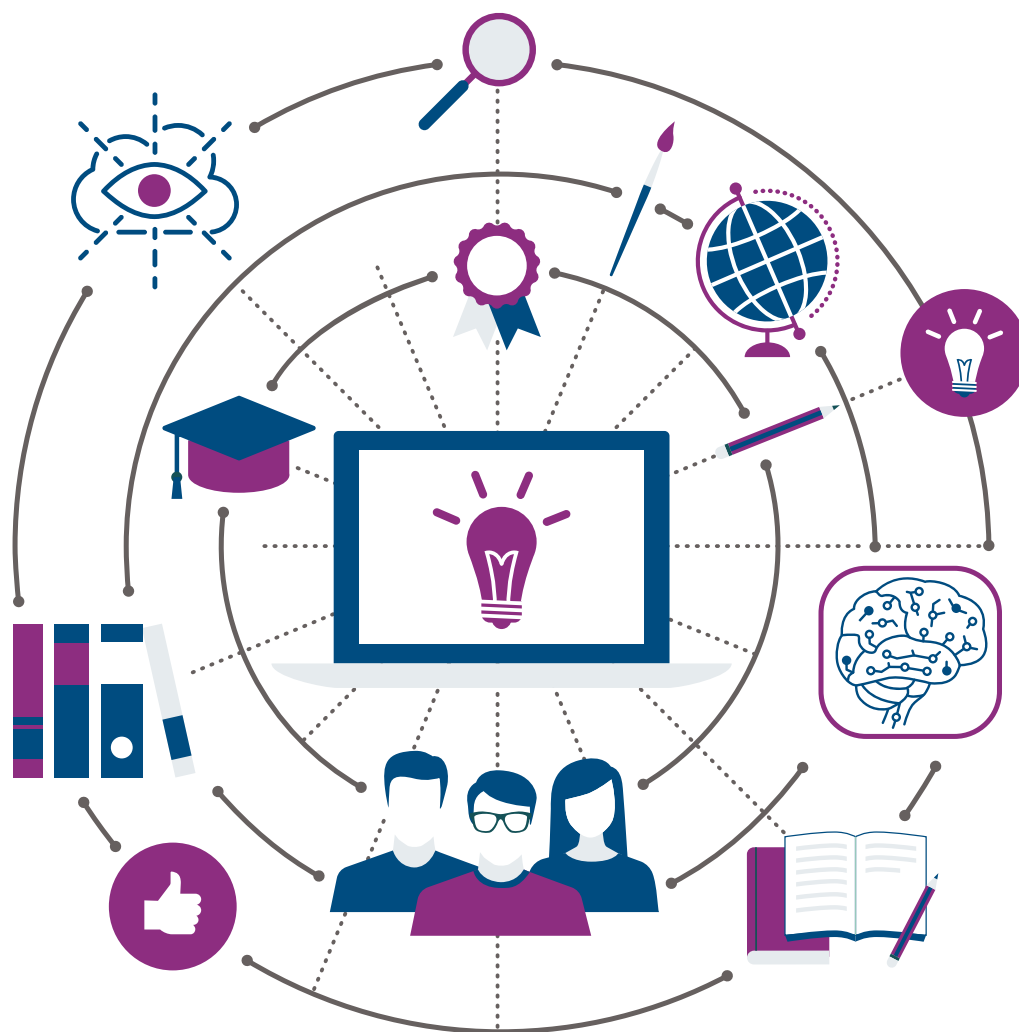# ESCO: harnessing the power of big data analysis for a functional labour market

ESCO is the multilingual classification of European Skills, Competences, Qualifications and Occupations.

It identifies and categorises skills, competences, qualifications and occupations relevant for the EU labour market and education and training, in 26 European languages.

Labour market intelligence for the 21st century

With the increased digitisation of the labour market and education and training processes, there are more and more big data sources that contain information on occupations, knowledge, skills and competences. Real-time job market data can offer quick and fast insights into the world of work.

The analysis of labour market information (LMI)

helps policy-makers, education providers, employers and career counsellors make more effective decisions concerning employment policies, curriculum planning, business development, and careers advice.

The European Commission has highlighted the collection and analysis of big data as one of the priority actions of the New Skills Agenda for Europe.

policy-makers · education providers · employers

How does ESCO benefit statisticians and big data analysts?

If you are a statistician or big data analyst, there are five key reasons why you should use ESCO for labour market data mining purposes:

To access multilingual data

As a multilingual classification, ESCO can be used to collect, aggregate and interpret data across language barriers, IT systems and countries.

To identify more accurately how occupations relate to ISCO

ESCO has been built as an extension of the International Standard Classification of Occupations (ISCO). It facilitates the understanding and correlation of national or regional occupations to the ISCO for comparison and analysis purposes.

To ensure interoperability with other data sources

Published as Linked Open Data, ESCO supports better exploitation of current technologies such as web crawling and data mining.

To access updated labour market information

Over time, ESCO will be updated regularly to capture the most recent trends concerning emerging skills and occupations. You can use it to identify changing user needs and new developments in the labour market and the education and training sector.

In summary, ESCO enhances the collection, comparison and dissemination of data through tools that capture skills intelligence and statistics.

To collect data at local, regional and national level, and compare it at EU level

ESCO allows you to gather information about occupations and skills from all Member States at a more basic level (local, regional and national), which can then be aggregated and compared at European level.

Showcase

Big data analysis of online vacancies

The European Centre for the Development of Vocational Training (Cedefop)[1] used ESCO v0 in the project "Analysing online vacancies for labour market intelligence"[2] to create a prototype IT tool for real-time analysis of job vacancies. This project served as proof of concept for ESCO, demonstrating how ESCO's overarching multilingual taxonomy could be used to identify skills and provide high value for big data analysis of labour market needs in five pilot countries (UK, DE, CZ, IT and IE).

Cedefop is currently working on extending the prototype to all EU countries in the next four years using ESCO v1. Preliminary data for seven countries (UK, DE, CZ, IT, IE, FR and ES) will be released in 2018 and the EU system (with all Member States covered) will be fully operational by the end of 2020.

[1] http://www.cedefop.europa.eu/en
[2] http://www.cedefop.europa.eu/en/events-and-projects/projects/big-data-analysis-online-vacancies

Learn more about ESCO:

https://ec.europa.eu/esco/portal/home

http://ec.europa.eu/social/main.jsp?catId=1042&langId=en

A Europe 2020 initiative

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