



The EU jobs and skills explorer

A tool for labour market analysis

Italy

Aims

- Develop a visual tool for the analysis of LM
- Offer novel views and perspectives on an array of LM issues
- Investigate data sources and identify areas for improvement

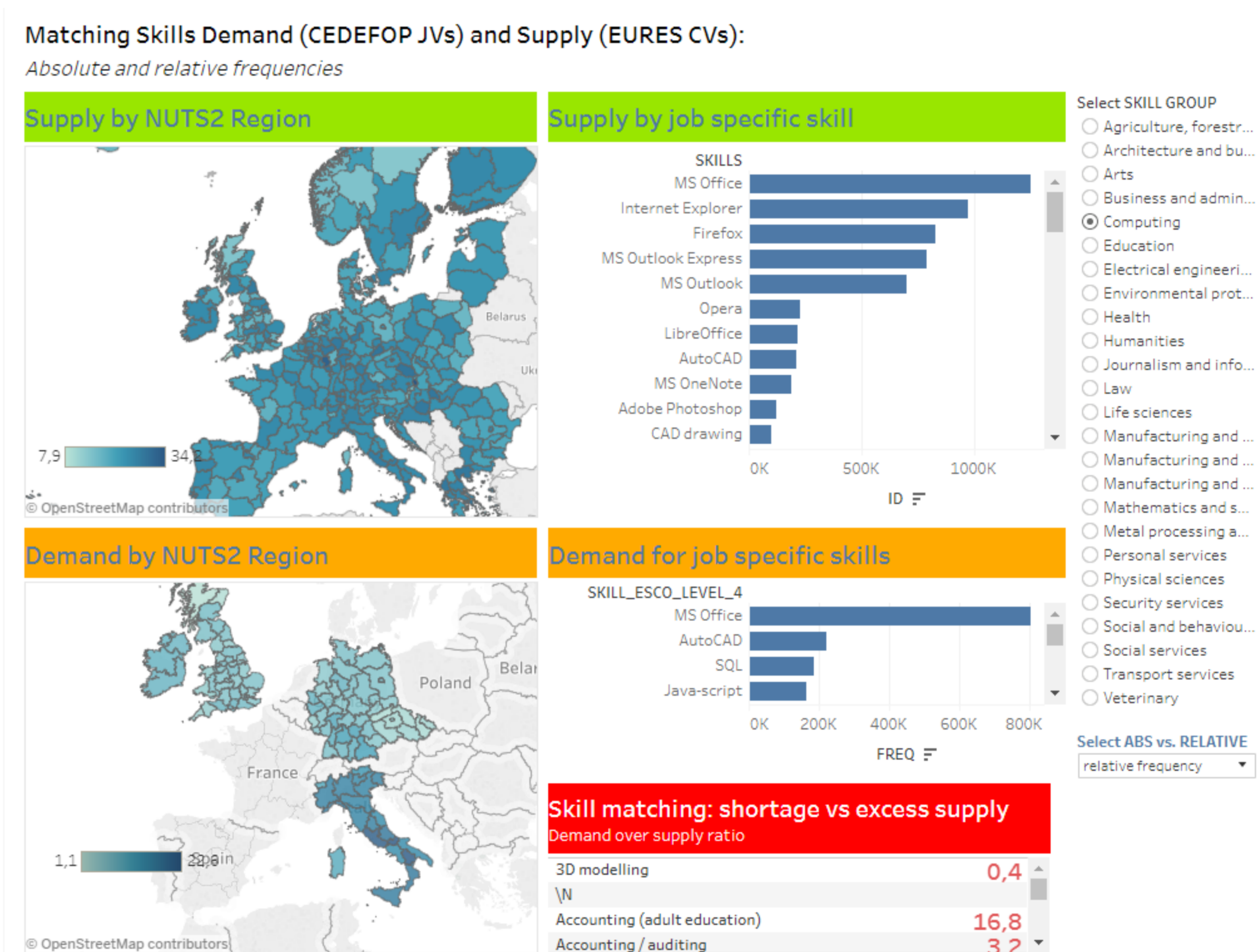
Data types and sources

- Employment** levels, by profession and education → LFS
- Workers' skills** (literacy and numeracy) → PIAAC
- Job-seekers**: location and skills (specific) → EURES CVs
- Job vacancies**: location, type, skills required, duration (CEDEFOP & EURES CVs)
- Other**: Job creation / destruction by income (LFS, EU-SILC); international mobility of skills (EURES CVs)...

Results

The tool allows **interactive exploration and analysis** of:

- Education & employment (4 dashboards)
- The skills of workers & job-seekers (3 dashboards)
- Job offers and the matching of skills (3 dashboards)
- Additional topics (availability to move, comparison of sources, etc. – 3 dashboards)



Methods, technologies and tools

- Technologies**: Cloud Azure, Windows Server Virtual Machine
- Software**: Python; Jupiter; Pandas; Tableau Desktop visualisation tool
- Methods**: Word embedding; correspondence analysis; K-means

Conclusions

- | Key achievements: | Main challenges: |
|---|---|
| <ul style="list-style-type: none"> multidimensional analysis of labour markets; new indicators; skills clustering (in progress); a supply-demand matching tool; robustness checks, with feedbacks for data quality assessment. | <ul style="list-style-type: none"> (ESCO) skills granularity; quality of data sets (both PUF and scraped data); effective management of very large data sources. |