Follow-up to the 2017 European big data hackathon

FROM PROTOTYPE TO PRODUCTION

18 and 19 September 2017
Cedefop, Thessaloniki

CEDEFOP
European Centre for the Development of Vocational Training

eurostat

Vacancies and CVs by industry and region
Monitoring demanded and preferred occupations

Norway

Aims

Live aggregation, classification and visualisation of vacancies (demand) and job preference (supply) in Norway by industry (NACE) and region

Data

- Web scraped data from Norwegian PES (public employment service)
- Data from Norwegian business register (api)
- Occupational background and preferred occupations from Norwegian PES (public employment service)

Results

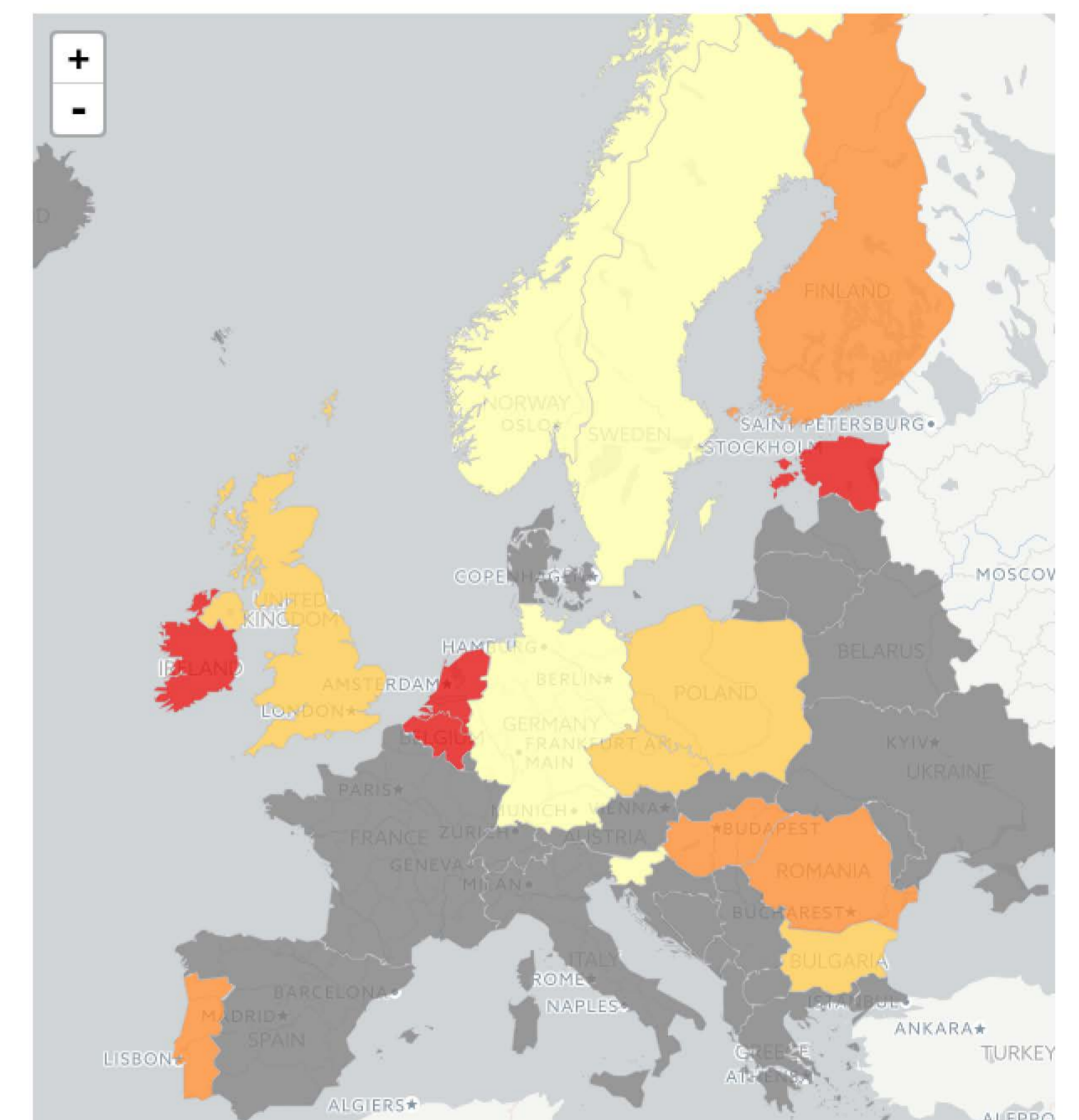- European vacancies and CVs, with free-text search

Search vacancies and CVs

The search engine is powered by a collection of web-scraped norwegian job ads where ISCO codes have been estimated by a simple search function working on already existing ISCO documentation occupations matching this search.

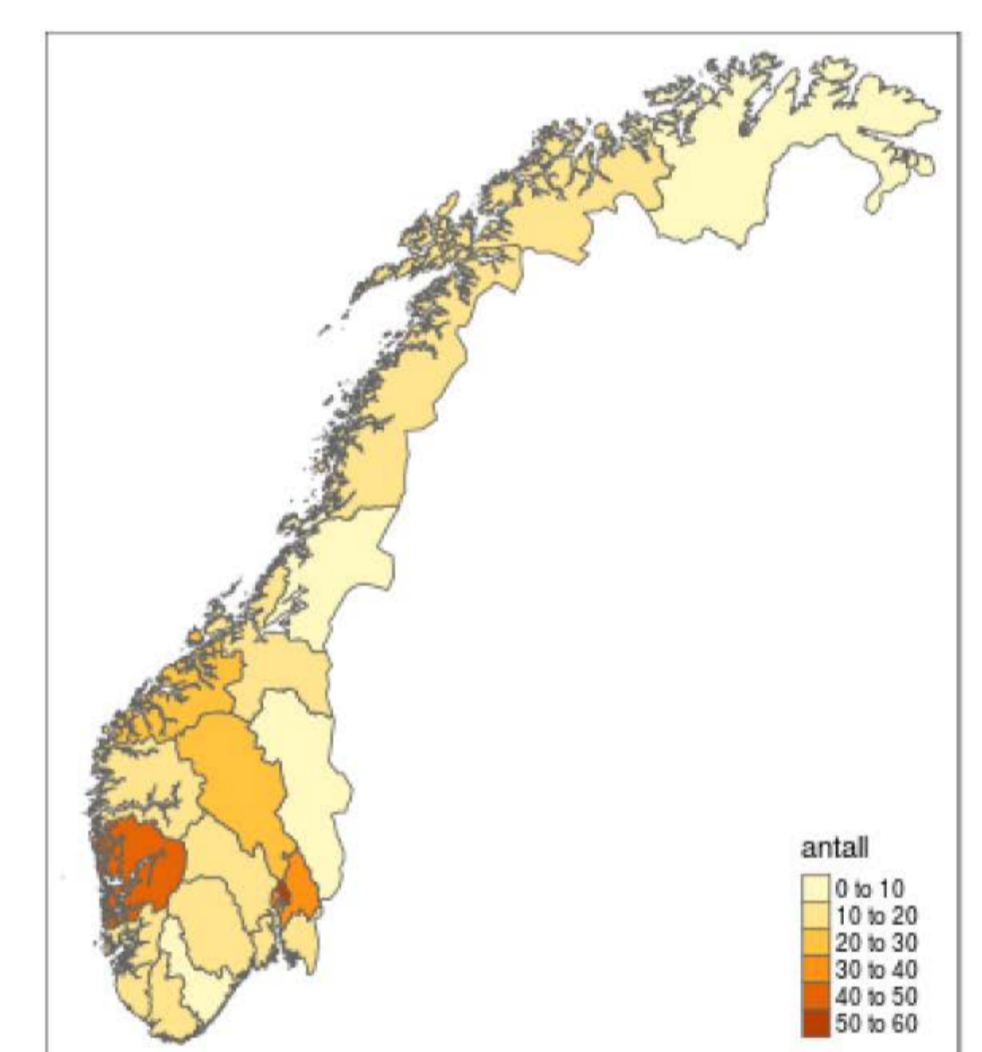**Keyword (Norwegian):**
Python utvikler

Measure
Ratio

The ratio is the relative frequency of desires (from the CV database) divided by the relative frequency of vacancies. Darker color means more applicants per position.

Search

- Current vacancies in Norway, by industry

Vacancies by industry

Select industry
Accommodation, food service

antall
0 to 10
10 to 20
20 to 30
30 to 40
40 to 50
50 to 60

Methods, technologies and tools

- Web scraping
- Record linkage
- R shiny
- Python
- Elasticsearch

Conclusions

Key achievements:
- shows possibility of continuous and automatic statistics;
- interactive visualisation;
- possible decision support tool for employers and job-seekers;
- monitor demand and supply mismatch.

Main challenges:
- web scraping, structuring data;
- record linkage;
- incorporate api data on non-employment;
- trying to get access to private employment services vacancy and CV data (possible, access not granted in time).

Contact:
krl@ssb.no; ing@ssb.no; eke@ssb.no