

ABOUT THE PROJECT

The main goal of **DISKOW** is to create a Job Knowledge Base (JKB) to discover relevant career and job knowledge from the web and make it easily accessible using a standardized format and terminology.



(Project Kick-off Meeting. From left to Right Ujwal Gadiraju, Ivana Marenzi, Rishita Kalyani, Mahdi Bohlouli, Miroslav Štefánik, Leandro Lombardo, Giampaolo Fiorentino)

Project Information

Project Acronym: DISKOW

Start date: 1st September, 2018

Duration: 36 months

Project Website: www.diskow.eu

Contact Person: kudenko@l3s.de (Dr. Daniel Kudenko)

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MULTIPLIER EVENTS

20
Nov. 2019

**Project Multiplier Event
in Rome, IT.**

This event was held on 20th November 2019 in two locations in Italy concurrently (Rome and Valverde). In the Rome meeting hosted at Engineering Ingegneria Informatica headquarters, there have been almost 30 participants including immigration law experts, sociologists, industry managers and associated projects. In the Valverde at “Centro polifunzionale Stefano Bozzola”, about 25 people attended including refugees, heads of reception centers and communities, heads of employment centers, heads of local institutions. Both sessions were held in parallel thanks to the use of audio video supports that allowed the interaction between the guests present in the two different locations. In addition to topics such as ethics, data collection policies and collaboration potentials, participants of parallel sessions have discussed the potentials for career integration of refugees as well who also told their experience and asked questions. Further information can be found from <https://cutt.ly/DISKOW2019>.

16
Dec. 2020

**Project Multiplier Event with
VET Engagement in Bonn, DE.**

This event will be hosted by Petanux GmbH in Bonn on 16th December at 13:00-15:30 as an online event due to the current pandemic situation. The main focus of this event will be on the Vocational Education and Training, HRM services, digital transformation and career development and networking and collaboration with related projects. In this event, the DISKOW project partners will present brief overviews on the various tasks and outputs as well as a demo of the JKB prototype. The event will be rounded up with a plenary session and presentations from related projects, associated partners, and startups. For further information and registration, please visit <https://cutt.ly/DISKOW2020>.



**Discovering Job Knowledge through
Web Analytics towards facilitated
Mobility of European Professionals
and Refugees Career Integration**

PROJECT PARTNERS



Leibniz
Universität
Hannover



Petanux
From Knowledge to Market



ENGINEERING

eúsav

Ekonomický ústav SAV
Institute of Economic Research SAS

Modeling and Meta-Modeling of Job Knowledge for Labor Market

This project task covers the modeling and meta-modeling of the Job Knowledge (JK) as a theoretical and conceptual part of the project. The output provides the required terminology for the Job Knowledge Base (JKB) and describes the structure and ontology of the JK in detail.

Identification and Analysis of the in the European labor market Data

Depending on the JK meta model , this task studied and identified potential data sources and targeted potential standards towards their integration into the DISKOW results. The output is a theoretical and technological study and is being used in the Job Knowledge Analysis Engine. The study has been released to the public and is a good source for future research and policy making efforts in the labor market area. The released study can be downloaded from the project website.

Job Knowledge Analysis Engine and Visualization Application Programming Interfaces (APIs)

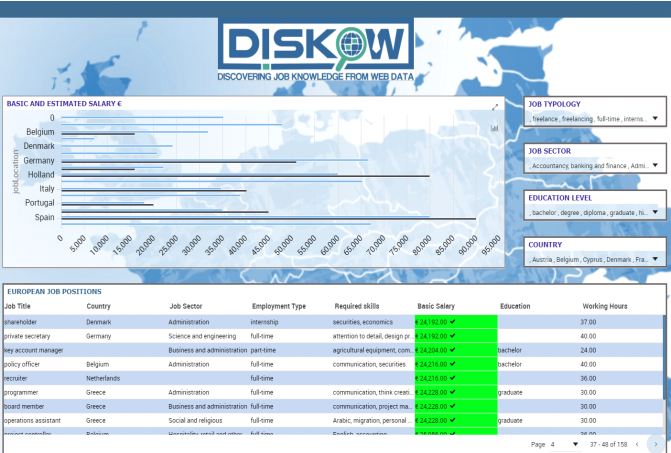
This task covers development of methods for extracting job-related information from websites. The goal is to analyze the content of job postings, other job-related textual data and information about job seekers, to detect topics within them and to feed into the JKB. This will have multiple applications: (1) Grouping similar job openings (2) Finding duplicate job openings (3) Automatically generating a hierarchical categorization of jobs (4) Matching job seeker skills to job openings. In addition, multiple visualization methods for the various prediction results and search tasks are developed throughout the project.

PROJECT OUTCOMES

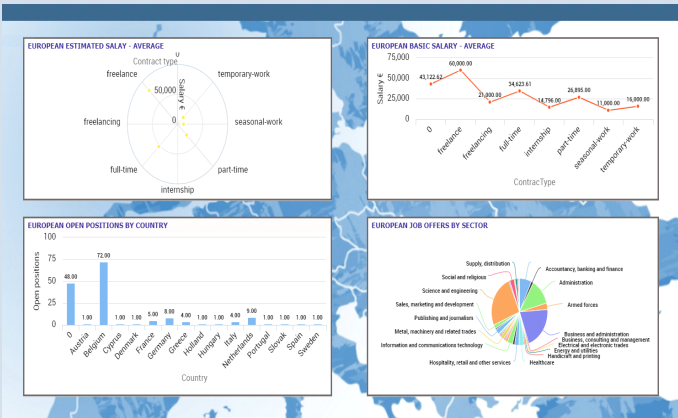
Job Knowledge Base (JKB)

The JKB, developed on Engineering's open source Business Intelligence platform (Knowage), contains various types of job offers information by sector, geographical area, skills based on ESCO (European Skills, Competences and Occupations) classification standards, responsibilities and roles. All of this information, properly aggregated and filtered through JKB, can be used to develop training programs, to identify job priorities, to show employment trends by geographical areas, to know the demands of the labour markets by industries, to show the "popularity" of a specific job, to provide information on average wages by type of employment and to show through specific graphs useful information to better understand the labour market. Through the JKB it will be possible to get information about ESCO categories to be consulted directly on the relevant European portal. (<https://ec.europa.eu/esco/portal/home>).

Demo of the DISKOW JKB:



Available Job positions in the JKB



Some statistic data analysis represented with different graphs

| EUROPEAN JOB POSITIONS | | | | | |
|------------------------|---------|--------------------------------|-----------------|---------------------------------|---------------|
| Job Title | Country | Job Sector | Employment Type | Required skills | Basic Salary |
| Junior data scientist | Italy | Accountancy, banking and fi... | part-time | perform online data analysis | € 30,000.00 ✓ |
| Data scientist | Slovak | Healthcare | full-time | Programming Skills, Statisti... | € 35,000.00 ✓ |
| Data scientist | Germany | Accountancy, banking and fi... | full-time | IT knowledge, Master in stat... | € 45,000.00 ✓ |
| Data scientist | Germany | Information technology | full-time | perform online data analysis | € 48,000.00 ✓ |

Results based on the “Data scientist” filter

JKB Assessment and Reporting

This task aims at bridging the gap between the research carried out by the consortium partners and the target groups that the project aims to reach out to. To this end, the partners have established cooperation with entities beyond the project consortium. One of the entities is the Slovak-based company Profesia, which provided the consortium with data. The presentation of the final product to refugees will provide important feedback from one of the groups that could benefit the most from the JKB. JKB aims to facilitate the availability of the vacancies, so the relation with the VET (Vocational Education and Training), which represents an effective way to help people integrate into the workforce, is desirable. For this reason partners cooperate with the VET providers, who will help to evaluate the final product.