

PROMISING PES PRACTICE¹ IT model predicting personal chances for employment

Publication date: December 2018

BELGIUM (FLANDERS)

In the course of the current fundamental reform, the introduction of the new service model with its 'digital first' approach requires powerful automated assistance in order to relieve counsellors in terms of working time (using the free time for clients who are most in need). By considering all relevant data for profiling, segmentation, job search and matching requires the advanced processing of mass data. Sources of data firstly include the PES dossiers containing information on the person, their vocational training and work experiences and also extensive data on labour market competencies, personal competencies etc. Secondly, external data will be used as well as the click behaviour of the jobseeker when they are looking for a job online.

Merging and processing of all of this data in a predictive model results in a personal estimation of the chances for employment. This risk scoring gives way to efficient prioritisation. This is the first phase of the model and the results of this model will be used by the counsellors at the end of the year. If personal assistance seems to be necessary, support by a counsellor will be introduced and the counsellor will be provided with a birds-eye view with tailored insights on a jobseeker.

In the next phase the model will also provide personal recommendations for potential next steps (tailored advice).

Furthermore, the model will provide aggregated information for policy makers and PES management on the risk drivers per region, per industrial sector or per type of jobseeker, etc.

Name of the PES	Flemish PES (VDAB – Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding)
Scope of measure	National
When was the practice implemented?	2017 – ongoing The prototype was tested in May 2017.
What was the driver for introducing the practice? Was it internal or external?	The introduction of the model was an internal decision in the course of a fundamental reform of the PES. The model was developed by the internal IT department with assistance of other departments and regional offices and also with external support.
Which organisation was involved in its implementation?	Central and regional offices.
Which groups were targeted by the practice?	Employees of the PES working in the IT department, management and front-line staff.
What were the practice's main objectives?	The overall goal is to increase the speed and quality of the job-search process by using the predictive IT-based model for processing mass data.
What activities were carried out?	Internal and external sources of data are used, including the click behaviour of a particular jobseeker when looking for a job online. The development of the predictive model and the tools for mass data processing was accompanied by a concept for comprehensive data protection in order to avoid any abuse.

¹ Practices referring to promising changes/reforms/approaches.

What resources and other relevant organisational aspects were involved?	Internal and external sources of data, IT department, managers and front-line counsellors.
What were the source(s) of funding?	VDAB budget
What were the outputs of the practice: people reached and products?	A new IT-based predictive model was developed. The output of this model will be used by the counsellors in order to accelerate and improve the process of job search.
What outcomes have been identified?	The advanced system is based on sophisticated machine learning tools. Test cases for counsellors showed an 80% rate of correct predictions.
What are the lessons learnt and success factors?	Advanced IT systems, expertise in processing mass data, close collaboration between IT department and counsellors.



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