A NEW IT TOOL, THE 'SKILLS BASED MATCHING ENGINE', INTRODUCES A MODERN MATCHING ENGINE BASED ON SKILLS RATHER THAN ON TRADITIONAL JOB TITLES.

Skills based matching engine

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The development of a skill-matching tool is a key element in the improvement and acceleration of the job placement process. It addresses inefficient job placement and enhances the precision of job matching by focusing on skills. This self-service tool is used by Arbeitsmarktservice (AMS) staff. The tool adheres to the strategic modernisation plan for the AMS (ongoing since 2019) to have only one database for both customers and AMS staff, and to provide entirely new IT support for the matching process.

Name of the PES	Arbeitsmarktservice (Austrian PES)
Scope of measure (a pilot project or a national reform)	National
When was the practice implemented? (including start and end date for pilot projects)	2022 – ongoing
What was the driver for introducing the practice? Was it internal or external?	Modernisation of the internal IT environment and the use of up-to-date technology to support the matching process within AMS.
Which organisation was involved in its implementation?	AMS, in cooperation with the Austrian Federal Computing Centre (the PES's IT provider).
Which groups were targeted by the practice?	The main target group are AMS advisors interacting with jobseekers and employers. However, the tool is also designed to be used independently by AMS customers to identify and match with relevant vacancies themselves.
What were the practice's main objectives?	The objective is to improve job placement services for AMS advisors with a more effective system that provides effective matches based on skills. It provides granular details about job matches based on matching and missing skills, which ultimately facilitates skills-based hiring.
What activities were carried out?	A feasibility study was conducted in 2019, before the tool was developed between 2020 and 2022. The tool was piloted with a select group of AMS counsellors in 2022 to test specific functions before it went live. In October that year, the tool went live and the software was activated for all AMS advisors . A second version is planned for release in 2025 with individual user profiles.
What resources and other relevant organisational aspects were involved?	The PES's IT department and 'department of organisational development and personnel training', and its departments for jobseekers and employer services. The IT tool was developed at the Austrian Federal Computing Centre.
What were the source(s) of funding?	National PES IT budget.
What were the outputs of the practice: people reached and products?	▸ The new web application now replaces the old matching tool and is available to all counsellors. In 2024, an average of 2 500 advisors per month used the application, with up to 110 000 uses by advisors throughout the year. ▸ The new matching engine used by AMS advisors uses BIS, a job information system based on a skills taxonomy and AMS's own labour market taxonomy. ▸ Applicant profiles and job postings are enriched with skills, with the aim of improving matching outcomes. ▸ Geographical features are used to restrict future job opportunities to those that are relevant, and to calculate routes and distances, which are considered in the search results for jobseekers to ensure better results.

HIEBL, Julian

Email: julian.hiebl@ams.at

What outcomes have been identified?	▸ The use of granular data on skills has improved the quality of matching results, increasing job matching efficiency. AMS will measure the impact once sufficient data is available to enable a comparison.
	▸ The IT infrastructure has been modernised, replacing the old IT environment.
	▸ A better self-service provision is now offered to AMS's customers (employers and jobseekers).
What are the lessons learnt and success factors?	▸ It is essential to have an appropriate IT provider that understands the business sector and requirements.
	▸ The piloting phase is crucial to support co-creation with end users.
	▸ Broad external consensus is necessary to support investments in PES IT infrastructure.

Contact details for further information

HIEBL, Julian

Email: julian.hiebl@ams.at