KNOWLEDGE MANAGEMENT
IN PUBLIC EMPLOYMENT SERVICES

THE EMPLOYMENT PLATFORM

REFERRAL

ENROLLMENT

TAXONOMY MANAGER

GAP ANALYSIS

PROFILING

MATCH

SEMANTIC SEARCH

FOUNDATION

wcc

KNOWLEDGE MANAGEMENT
IN PUBLIC EMPLOYMENT SERVICES

Every PES has its own set of services that it must offer. Services to jobseekers, such as job matching, gap analysis, and referral, or services to employers and employment partners. Then there are services for government agencies that for example need statistics on the labor market or want certain labor market policies implemented. To deliver all these services a PES depends on data. Data gathered from a multitude of sources and presented in a wide variety of formats. The challenge is to make sense of all this data and transform it to useful information.

Making sense of unstructured data, such as a resume or a vacancy, requires knowledge on how to interpret the information presented in a resume. Ideally, missing relevant information should be flagged or automatically added to create a comprehensive view of the person in question with the aim to give the best possible advice for getting back to work in a sustainable job. Of course, giving useful advice to a jobseeker relies not only on resume info and available vacancies but also on knowledge about the labor market. Which jobs have a future? Which active labor market policies might apply? What skills are in demand? Finally, any given advice must be explainable. General algorithms can't meet that requirement.

So, it is obvious that a PES needs a lot of knowledge to be able to supply useful information and services. With the increasing amount of knowledge that is necessary to give meaningful results, using lists and spreadsheets to store knowledge isn't a good solution. It carries a high risk of unwanted proliferation of versions, resulting in inconsistent advice. Trying to manage knowledge when it is spread all across the organization is next to impossible. Instead, there should be a central knowledge base serving as a single source of truth for every application related to managing the labor market. A knowledge base that includes all the required knowledge and can easily be improved, managed, and controlled.
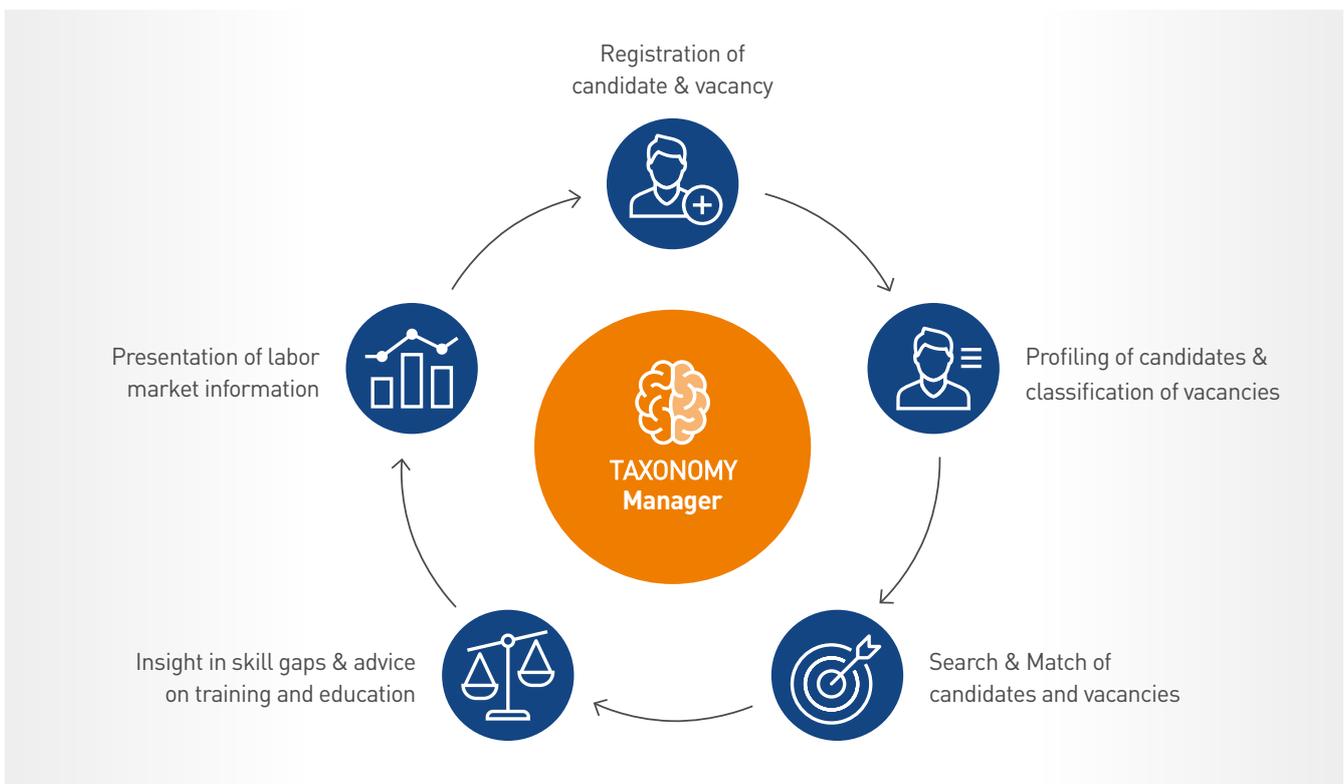

*Figure 1: **Taxonomy** manager at the core of labor market services*

Taxonomy manager

Given the strategic importance of having one central, single source of truth that encompasses all necessary labor market knowledge, is easy to manage and improve, and can support a diversity of services, WCC developed the Taxonomy Manager. This solution meets all the requirements for knowledge management at a PES, and includes a consultancy approach to facilitate successful implementation.

The WCC Taxonomy Manager serves as a core component of a larger IT-solution. It can support the existing services at a PES or it can be expanded with WCC's employment software modules.

Product features

> Already-developed taxonomies and lists at a PES are easily captured. Industry-standard taxonomies such as ESCO, ISCO, or ROME V3 can also be entered and mapped against national taxonomies.
> National taxonomies can be enhanced with region- or sector-specific occupation requirements.
> Multilingual support, both on applications and on descriptions.
> Compliancy reporting on, for example, changes made in the knowledge base.
> Transparent decision process for every decision or advice.
> Full publication process to change content in services, including:
>   ▪ Option to have fast publication process on content changes;
>   ▪ Option to publish content changes without necessity to involve IT.

Benefits

> Use one central knowledge base within the whole organization.
> Optimize all employment services based on uniform domain knowledge.
> Basis for semantic search, higher data quality, improved matching results, better gap analysis, and more fitting advice on trainings.

> Uniform process for maintaining taxonomies.
> No need to manually create similarity tables.
> Transparent compliancy and accountability.

Consultancy services: taxonomy support

WCC consultancy offers a 5-step approach to support PES in organizing, implementing, and maintaining taxonomies in the WCC Knowledge Management solution.

1. Assess

Our consultants assess the organizational context.
Business goals
What does the PES try to achieve (strategically)?
> What are the main goals?
> What are the characteristics of the labor market (high-level)
Operational use
> Why does the PES want to use a taxonomy? For example, will the taxonomy be used to support services like enrollment or job matching?
Available taxonomies and other labor market information.
Which regional, national, and international classifications are at the PES's disposal?

The assessment results in an overview of "environment" requirements, available taxonomies, and other data.

2. Analyze

WCC experts analyze available taxonomies.
> What is the structure of the available classifications?
> Which information do they contain?
> What is the quality of the information?
They may also look at existing jobseeker and vacancy data to assess the quality.

This step results in a quality analysis of data sources and structures.

3. Design

WCC advises on which steps to take to design a suitable knowledge base for the planned business goals.

Our consultants answer questions such as:

> Which classification should be used as a basis?

> What structure should the taxonomy have?

> How should the basic classification be enriched or mapped so as to suit the desired business goals?

WCC's consultants use their expertise on best practices to decrease the time to build, and increase the effectiveness of the knowledge base.

This step results in a taxonomy domain model and description.

4. Create

Once the client agrees to the taxonomy design, WCC creates the desired taxonomy from the available sources (including WCC pre-configured best practice taxonomies) and imports it in the WCC Taxonomy Manager.

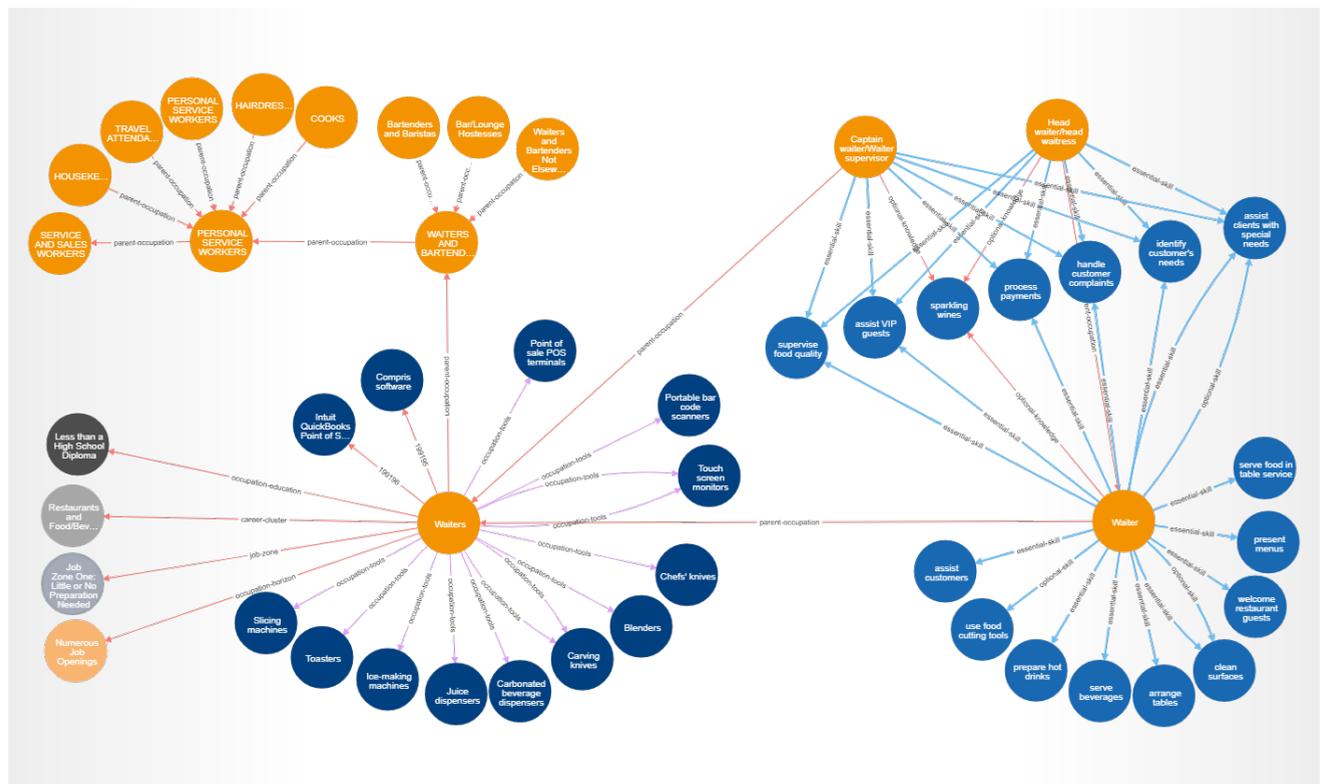This step results in a deployable taxonomy.

Figure 2: Basic knowledge vs. Extended knowledge

The main Taxonomy Manager screen provides an overview of all existing taxonomies (in this example, based on a WCC Best Practice Domain Taxonomy Model).

5. Maintain and actualize

Once the customer-specific taxonomy has been implemented, it can be maintained and actualized in the WCC Taxonomy Manager. This allows you to apply the knowledge on various services and adjust the content based on changes in the labor market or in policy.
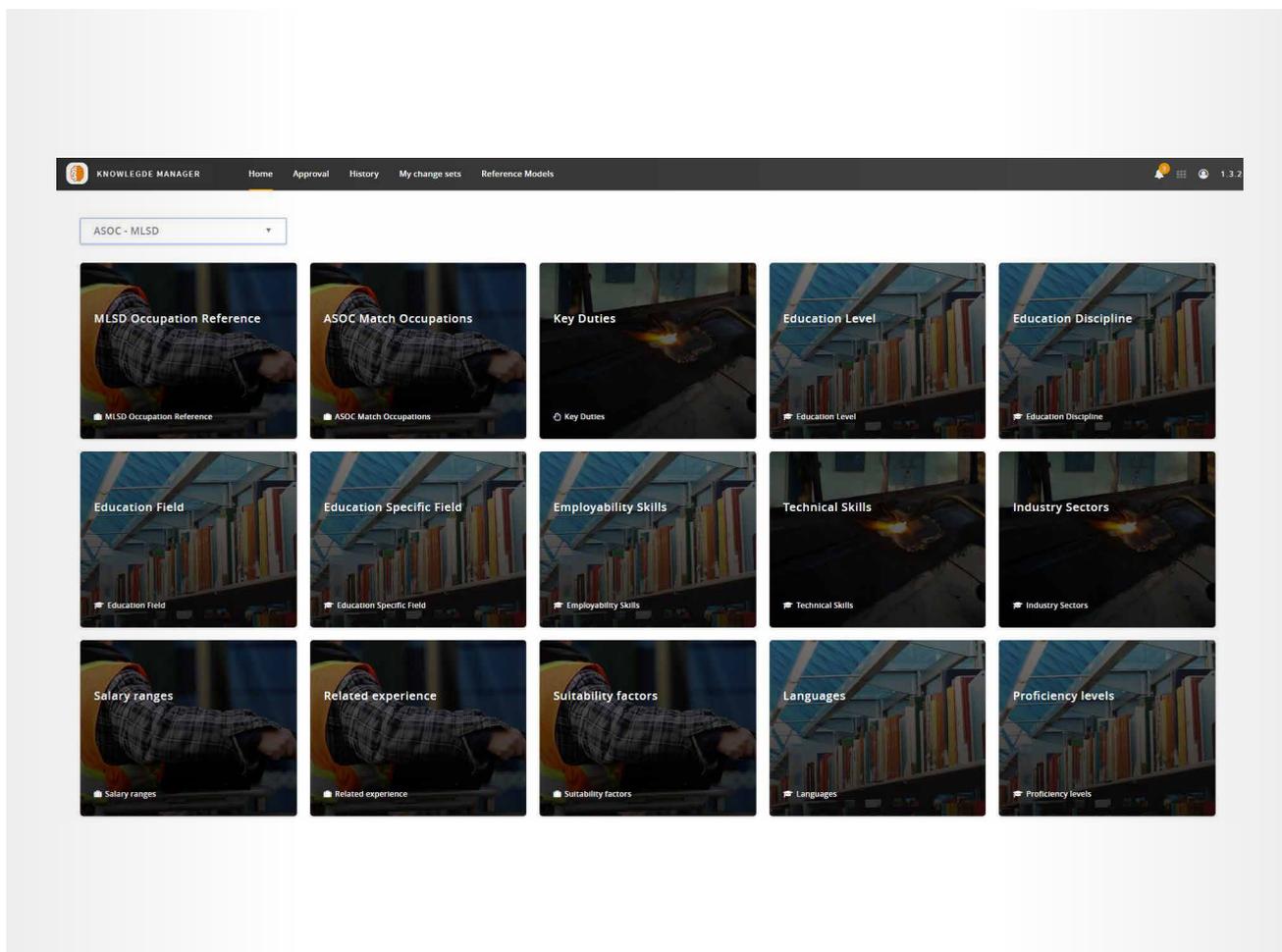

Figure 3: Taxonomy management dashboard example

About WCC

Our vision

People in organizations make decisions. In the markets we focus on, those decisions profoundly impact people's lives. To make the right decisions in an increasingly complex world, it is necessary to have excellent software. That is what drives us at WCC: enabling people to make better decisions.

Our mission & strategy

WCC wants to give people the answers they need, not just the ones they asked for. We thrive on developing software that can connect, combine, and make sense of large amounts of data stored in different systems. Software that can communicate with the users in a human way, and that delivers superior results so our customers can make a difference. We call this "software that matters". But great software alone is not enough to get the best results. What sets WCC apart is the combination of remarkable software with in-depth knowledge of our customers' business. That is why business and implementation consultancy is an important part of our strategy. We focus on two markets: Employment and Identity.

Our products and services

The core of the Employment market is matching people with sustainable jobs effectively and efficiently. WCC has proven to be unequalled in doing just that. Our Employment Platform, which combines unique search and match capability with advanced gap analysis and referral to the right measures, delivers superior strategic value to our customers. Many of the world's largest employment and staffing organizations use our products and expertise, including Randstad, Robert Half, and the public employment services of Germany, France, and the Netherlands.

The security needs of the Identity market are stringent. Border management and law enforcement agencies face the challenge of quickly and accurately identifying people from huge amounts of data spread over many different databases and formats. WCC's software incorporates the necessary evidence-based algorithms, such as multi-cultural name matching, to make correct identifications. HERMES, our API/PNR solution, adheres to industry standards and is easy to implement and operate. Our customers include UNHCR and the European Union.

WCC Smart Search & Match
Zonnebaan 19
3542 EA Utrecht
The Netherlands
T: +31 (0)30 750 32 00

info@wcc-group.com
www.wcc-group.com

WCC Services US Inc.
228 Hamilton Avenue
Suite 300, Palo Alto
CA 94301, USA
T: +1-888-922 9224