



## **Skills and Productivity Board: Skills Taxonomy**

### **Summary**

**We are seeking expressions of interest to undertake a scoping report on how the Skills and Productivity Board could:**

- Develop a functional skills taxonomy, possibly building on the work of others, for use.
- Use this taxonomy to identify areas of significant skills shortage.

We envisage this report will likely to largely be desk-based research. We anticipate an experience contractor will undertake this work who is familiar with the work of O\*NET or ESCO.

The findings of this report could form the basis for a larger piece of research in the next financial year.

### **Background**

As announced in September 2020, the new [Skills and Productivity Board](#) (SPB) will undertake expert analysis of national skills needs to inform government policy. The independent board, composed of labour market and skills economists and chaired by business leader Stephen van Rooyen (CEO and EVP of Sky), has been commissioned by government ministers to provide evidence and analysis that addresses the most pressing gaps in our knowledge of the labour market, including which skills add the most value to the economy and where the key skills mismatches are both now and in the future.

Given their scope and role outlined above, it is fundamental for the SPB to have clear definitions of skills and skills mismatches. **Therefore, it is important that the SPB has:**

- **A functional and operational skills ‘taxonomy’ - to be able to name, define and classify skills in a way which can help identify skills mismatches (in particular skill shortages).**
- **A way of linking these skills/skill sets to occupations and, possibly, qualifications.**

Globally, work has already taken place on skills taxonomies which have typically linked occupations to skills - the Occupational Information Network in the USA and European Skills, Competencies, Qualifications and Occupations (ESCO) in the European Union most notably. The UK does not currently have its own occupation to skills matching system, although work has previously taken place mapping UK SOC codes to O\*NET and ESCO. In addition, Nesta and the Economic Statistics Centre of Excellence (ESCoE) recently undertook an exercise using web scraping techniques for online vacancy data to produce their own data-driven taxonomy of skills demand in the UK.



As shown above, skills taxonomies have mainly focused on linking occupations with skills. To explore the possibility of taking this one step further and make the work of the SPB more closely linked to education policy, we are also interested in exploring whether a taxonomy could map skills to qualifications as well as occupations (i.e., what skills should you get from undertaking a qualification). We recognise this will present significant challenges, but we are keen to explore the possibility of this. We are particularly interested in linking our taxonomy to Higher Education and Further Education courses.

### **Research Aims**

This scoping report should provide:

- An overview of other work in this area (such as that based on O\*NET and ESCO), outlining the pros/cons of these taxonomies and which is best to map to jobs in the UK.
- Bringing together the work currently taking place on skills taxonomies in the UK to consider how the SPB could use this within their own work to identify skills shortages. Possible extensions – including techniques such as information from web scraping vacancies and other RTI – should also be explored.
- Extending this work further to understand whether it will be possible to link skills to both qualifications and occupations using these taxonomies.

Therefore, the main research question are:

- **What skills taxonomies exist in the UK, and what are the pros/cons of using them to identify skill mismatches/shortages?**
- **How might the SPB use these taxonomies within their work given their scope/interest?**
- **How could these taxonomies be developed to include mapping of skills to qualifications as well as occupations?**