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Development Team  
National Skills Taxonomy  
Jobs and Skills Australia

## **Introduction**

Ai Group Centre for Education and Training appreciates the opportunity to respond to the discussion paper on the proposed National Skills Taxonomy (NST). We are supportive of the intention to develop the NST, and the vision identified in the paper. A comprehensive skills taxonomy can have benefits for individuals, employers, industry bodies, education providers and policy makers. When completed, it would form part of the system architecture that underpins how each group interacts with the employment, education and training systems.

We believe the biggest value of the NST will be the common language of skills it provides for all users. This will lead to better alignment between the world of work and the world of education and training. By using a common language, programs in the higher education and vocational spheres would be more closely related to each other, and more closely related to the skills used at work.

There is also an excellent opportunity through the NST to make progress towards greater adaptive capacity in the workforce, with greater agility and responsiveness to emerging skills needs. Clarity in the NST's alignment to other taxonomies will be key to its success. Ai Group is of the view that an NST can be of most benefit from an education perspective, supporting a coherent and connected tertiary education sector and enabling lifelong learning. Also critical for success will be how the NST is developed in context of wider tertiary education reform, in particular, implementation of the Noonan Review of the Australian Qualifications Framework and the Universities Accord.

### **Building a National Skills Taxonomy: Existing taxonomies and use cases**

One way to look at how an NST could add value, is to consider how we miss out by not currently having an NST. In the education sector, there is no common language between higher education and vocational education providers. Higher education uses learning outcomes at a qualification and unit level that can be both very broad (eg develop an entrepreneurial mindset to bring products to market) and quite specific (eg design and commission a robotics system). By contrast, vocational education uses competency standards that require students to meet performance criteria and provide evidence they have demonstrated the specified knowledge and skills. While not completely foreign to each other, the two systems are sufficiently different to make matching like for like, and hence create education pathways, a challenge. By creating a shared language, an NST could help facilitate consistent applications of recognition of prior learning (RPL) between the systems. An education provider could also use the NST to help develop new training programs and see where current programs are not keeping up to date with changing skills.

In the world of work, employers currently grapple with job design and bundling up of different tasks, particularly as technologies and functions change. With job applicants using a variety of

terminology and descriptions of their skills, it can be challenging to identify and verify applicant capabilities. An NST could help employers develop job descriptions, identify skills of applicants and their existing workforce. It could also help to see where staff might be better deployed or what additional training is needed for a worker's further development.

An individual looking to further their career, or perhaps facing retrenchment, currently has no systematic way to identify the skills they have developed in their current role or previous experience, and to see where those skills can take them next. To understand how the training system can help that individual further develop new skills along their career trajectory is challenging without a skills taxonomy.

If the NST is developed and linked to other taxonomies, the worker mentioned above, or a careers or employment adviser working on their behalf, could use it to identify skills they have acquired, either in training or through their work history, and occupations those skills could lead to. It could also help identify current skills gaps. This would be useful for somebody looking to further their career, or somebody facing retrenchment. Potentially, the NST could be used by an individual to build a CV identifying their skills. The NST would be even more useful if it assisted them to take the next step, such as accessing training to further develop skills, or accessing other careers websites. This would be an opportunity to enhance the functionality of the Your Careers website. Some taxonomies used in other countries especially O\*NET and the Singapore Skills Frameworks have excellent linkages to training programs. These individual benefits could also apply to a student.

The NST could also be an important asset for labour market research in Australia. For example, research on the future of work often utilises O\*NET to consider how changes in technology might impact specific occupations by considering changes in skills. Australian researchers also often utilise O\*NET for these purposes. Having an NST in place could potentially mean more tailored analysis based on Australian frameworks.

Most importantly, it is the common language of skills the NST provides that will lead to these different activities potentially having better linkages with each other in ways not yet thought of.

There are also a range of possible benefits from a system perspective that should be explored. For example, the NST could support implementation of current qualifications reform that is moving beyond a 'one size fits all' approach towards designing qualifications based on their purposes, providing flexibility to improve outcomes for learners and industry. The NST should be developed with alignment to a revised Australian Qualifications Framework (AQF) identified through the Noonan Review of the AQF.

The NST could support lifelong learning as an important part of system reform. It could support the system architecture of a National Skills Passport (NSP) that is currently under consideration. An NST could potentially be the backbone of an NSP, that gives expression to the NST in a very practical and useable way. An NST could also potentially assist in clarifying how micro-credentials connect to and build up to full qualifications.

These long-term benefits lead to key considerations in designing the NST. Skills must be defined in a way that has meaning and is useful for all potential users. Skills must be in context of the knowledge – and application – accompanying the skill. The language that describes those skills must be accessible to all potential users. And finally, the NST must be compatible with other existing

taxonomies such as ANZSCO and ANZSIC. Consideration should also be given to useability of the NST for careers websites, training.gov.au, and other education websites. This will enable the developers of those 'retail' websites to design models that have much improved interoperability.

As an example of how skills are defined, skill clusters and their sub-components in the Australian Skills Classification (ASC) are more related to tasks rather than skills. For example, skills clusters in the Agriculture and Animals cluster family are described by terms such as "direct or advise", "manage", "process" and "study". Each of these clusters then leads to specialist tasks. Describing skills purely in terms of tasks runs the risk of downplaying the importance of knowledge and exercising judgement through application. This would make it difficult for a higher education provider to understand how their programs relate.

How skills are grouped within the taxonomy is also a critical consideration. The ASC commences with cluster families, which are loosely aligned to occupation specialisations. Similar to this are the Singapore Skills Frameworks, mostly aligned to industries apart from critical core skills. The key consideration is how simple it is to find where a skill lies and where a new skill should be assigned.

The European Skills, Competences, Qualifications and Occupations (ESCO) model of four initial categories (Knowledge, Language skills and Knowledge, Skills and Transversal skills and competences), each leading to narrower specialisations as needed, provides a good example of how the taxonomy could be grouped and how knowledge can be incorporated.

An unintended consequence could lie in how it might potentially be used in the industrial sector. Some industrial awards align pay classification levels to competencies, some to tasks and duties, some to skills and some to various combinations of those. If pay classifications become too closely aligned to the NST, it may well affect how dynamic the NST can be. If the NST is regularly adding new skills or removing old ones, there could be industrial implications that might add cumbersome consultation processes. If skills described within the NST are substantively different from awards, it may require effort to create alignment between NST and awards. Ai Group is of the view that this issue needs to be considered carefully and would wish to be consulted on this matter.

Ai Group supports the overarching vision contained in the discussion paper. The principles outlined in the discussion paper are also supported.

### **Building a National Skills Taxonomy: Design considerations**

As previously mentioned, the ESCO model of four initial categories (Knowledge, Language skills and Knowledge, Skills and Transversal skills and competences), each leading to narrower specialisations as needed, provides a good example of how the taxonomy could be grouped and how knowledge can be incorporated, although the terms used should be more reflective of the Australian context. Every effort should be made to build on existing taxonomies in Australia.

The Noonan Review of the AQF talked about knowledge, skills and application. The definition of skills in the Noonan Review of the AQF could be implemented and assist with alignment of reforms. Groupings in an NST should be intuitive, and terms used should be in simple language. Foundation skills should be an important component, including digital literacy. As far as possible, skills should not be grouped under industry sectors, although industry sectors may assist in searches.

There should be sufficient granularity to permit a skill to be understood and applied, but not to the extent that it excludes similar applications. For example, an ESCO skill is “compute average weight of cigarettes”. An alternative title of “compute the average weight of a product” would be applicable to a much broader range of instances.

Some degree of proficiency or levelling should be reflected in the NST to allow for skills gained and applied at an entry level or intermediate level or master level. There is a risk in using too many levels of proficiency, as they become difficult to distinguish one from another.

### **Building a National Skills Taxonomy: Implementation considerations**

Ai Group CET considers Jobs and Skills Australia (JSA) to be the most appropriate agency to assume responsibility for the NST. JSA was established to provide the Commonwealth Government with advice about the labour market and about “Australia’s current, emerging and future skills and training needs and priorities”. The NST fits neatly into that responsibility. However, it will also be important that connections to the Australian Tertiary Education Commission, with its responsibility for the Australian Qualifications Framework, and the Australian Bureau of Statistics (ABS), responsible for ANZCO and ANZIC, are closely maintained. It may then be that joint responsibility sits with the Minister for Skills and Minister for Education, and JSA convenes a multi-agency steering committee involving other agencies with responsibility for related taxonomies.

Regarding how the NST is updated and maintained, a combination of data-driven approaches with suitable consultations to validate would appear to be the most suitable. For example, Jobs and Skills Councils should have opportunities to provide input. Appropriate timeframes should be put on consultations to ensure the process is not unnecessarily slow. Once established, it will also be extremely important to ensure that there is ongoing budget for the NST.

The Centre for Education and Training at Ai Group will be happy to further discuss and be involved in the development of the NST as it progresses.

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