



NATIONAL SKILLS TAXONOMY DISCUSSION PAPER SUBMISSION

Industry Skills Australia

August 2024

UPLOADED RESPONSE

Industry Skills Australia (ISA) welcomes the opportunity to provide a submission to Jobs and Skills Australia's National Skills Taxonomy Discussion Paper. Feedback has been outlined in response to the survey questions.

If you require any further clarification or additional information regarding our submission, please feel free to reach out to us.

Lessons from existing taxonomies

Skills are at the centre of Australia's education system and labour market. Despite the importance of skills, challenges persist in responding to needs. A National Skills Taxonomy (NST) for Australia could help different stakeholders to align in a collective response.

Please consider the following:

- What are the key benefits and/or limitations with **existing** skills taxonomies?
 - Benefits
 - Training alignment
 - Comprehensive hierarchical structure that maps skills and competencies
 - Limitations (of Australian Skills Classification)
 - Based on American O*NET occupational data, not Australian data
 - No alignment to vocational or higher education qualifications
 - While similar occupations are provided, it's not shown how they were similar, that is, what tasks were shared between occupations
 - The online report is navigable, but not searchable
 - Core competencies and specialist tasks being separate is not helpful, they should be on a continuum from specificity to generality
- What features from existing skills taxonomies are important to retain or address in a new NST?
 - Job advertisement data alignment (trending and emerging skills)

Potential use cases for a National Skills Taxonomy

A National Skills Taxonomy (NST) can support a range of use cases with different benefits. The vision for a NST must reflect our collective aspirations. Principles should guide the Taxonomy's design and development, but trade-offs may be required to balance these principles effectively.

Please consider the following:

- Where could a NST best add value for individuals, employers and educators, and how?
 - Taxonomies, by systematically defining and organising skills, enhance communication regarding skill requirements among employers, job seekers, and educators
 - Transparent career pathways linked to skills development and training enables individuals and employers to understand the importance of continuous learning and skills enhancement (upskilling and reskilling)
- What are the potential unintended consequences or challenges of a NST that will need to be overcome?
 - Alignment to higher education and alignment to other taxonomies, especially in the international context
 - As different regions and sectors may develop their own taxonomies, this could lead to a lack of interoperability and consistency, making it difficult for individuals to move between industries or regions
 - Unified skills language
 - Skills mismatch and skills evolution¹
 - Data driven taxonomy are more easily updated than the expert-derived taxonomies.²
 - Educational Disparities - Taxonomies that align too closely with higher education may not account for vocational or informal learning paths
- What do you believe should be the overarching vision for the NST?
 - Provide a comprehensive and standardised framework for categorising and describing skills and competencies relevant to the Australian labour market. This includes both technical skills specific to industries and occupations, as well as transferable skills that are valuable across various sectors.
 - Data-Driven Decision Making – By leveraging data and evidence-based approaches, the taxonomy can support data-driven decision-making processes at both strategic and operational levels.
- What guiding principles should underpin the taxonomy? Are there any non-negotiables?
 - Accuracy in alignment of skills.
 - Alignment with industry practices by consultation with wide variety of industry stakeholders.

¹ [4. Skills outlook - The Future of Jobs Report 2023 | World Economic Forum \(weforum.org\)](#)

² [A UK Skills Taxonomy \(nesta.org.uk\)](#)

- The taxonomy needs to have comprehensive coverage to encompass a wide range of skills, competencies, and qualifications relevant to the target audience.
- Easily updatable to include various skills and has a coverage of non-traditional emerging occupations
- Interoperability - alignment to training, higher education and easy usability for the intended audience.
- **How should principles be prioritised if trade-offs are required?**
 - The prioritisation should be strategic, aiming to maintain the integrity and utility of the taxonomy, while accommodating necessary compromises.

Building a National Skills Taxonomy – design considerations

What should a NST look like? Considerations include:

- **Definitions and nomenclature**
 - Clear and unified skills language and definitions that is used in global taxonomies.
 - Provide a clear roadmap for skills-based hiring, learning and development of initiatives.
- **Structure (skill groupings and typologies)**
 - The taxonomy should be able to be sliced in several ways. ESCO data, for example, can be split by skills, knowledge and other major categories³, by reusability level⁴ and occupation⁵.
 - Each category might be further divided into typologies based on the level of proficiency, such as foundation, intermediate, advanced and specialised, complexity and autonomy, as exemplified by the Australian Digital Capabilities Framework⁶.
- **Granularity**
 - Granularity should be comparable to Singapore's Skills Framework (SFW), which is known for its comprehensive detail. For example, the SFW of Singapore encompasses 16 fundamental skills, 2,000 specialised technical skills, and 25,000 essential tasks spread over 1,600 different jobs.

³ European Commission. (n.d.). ESCO classification: Skills. Retrieved July 25, 2024, from https://esco.ec.europa.eu/en/classification/skill_main

⁴ European Commission. (n.d.). Skill reusability level. In Escopedia. Retrieved July 25, 2024, from <https://esco.ec.europa.eu/en/about-esco/escopedia/escopedia/skill-reusability-level>

⁵ European Commission. (n.d.). ESCO classification: Occupations. Retrieved July 25, 2024, from https://esco.ec.europa.eu/en/classification/occupation_main

⁶ Department of Employment and Workplace Relations. (n.d.). Australian digital capability framework. Retrieved July 25, 2024, from <https://www.dewr.gov.au/skills-and-training/resources/australian-digital-capability-framework>

- Information attached to each skill
 - Establishing links between Units of Competency and taxonomic skills could be highly beneficial. This could help identify related or functionally duplicate Units of Competency to help find pathways between similar occupations.
- Proficiency and levelling
 - Interactive clustering of skills at various points of proficiency and levelling aids in defining the skills associated and the granularity increases with each level.⁷
- Alignment to other taxonomies
 - It is crucial that the design of NST aligns with other taxonomies as it leads to harmonisation of skills. Examples include the Australian Digital Capabilities Framework⁶, which ISA developed on behalf of the Department of Employment and Workplace Relations (DEWR).

Are there any additional features or key considerations for an effective design of the NST to support its use? Considerations could include supporting materials that will enable or better facilitate NST usage.

- Small interactive videos to support and help navigation. For example, in Singapore Skills Framework, there are several short interactive videos for guidance.
- Colour coding and clustering helps the audience to navigate and visualise the taxonomy.
- More than a list of skills - The skills taxonomy may be used to provide estimates of the demand for each skill cluster, the change in demand over recent years and the value of each skill cluster. This may help users to understand the value of skills and growth in their demand while identifying transferrable skills.⁸
- Provide online training materials for users of the NST to understand and apply the data quality standards effectively.

⁷ [Skills Taxonomy - Reskilling Revolution - World Economic Forum \(weforum.org\)](https://www.weforum.org/publications/skills-taxonomy-reskilling-revolution)

⁸ [A UK Skills Taxonomy \(nesta.org.uk\)](https://www.nesta.org.uk/publications/a-uk-skills-taxonomy)

Building a National Skills Taxonomy: Implementation considerations

What are the most appropriate ongoing governance arrangements for the NST?

- Arrangements such as regular periodic independent reviews, effective and wider stakeholder engagements, collaboration between organisations such as government, industries, educational institutions, training organisations, adaptable to industry changes, and transparency are crucial for ensuring that the National Skills Taxonomy remains effective, relevant, and aligned with the needs of the workforce and the economy.

How should the NST be updated and maintained? Considerations include:

- How skills are identified for inclusion, including initial identification and validation
 - Industry intelligence
 - Wider stakeholder consultation
- The rate at which update should occur
 - Along with regular periodic independent reviews, it also depends on the new emerging trends and their need for inclusions.
- The development of data quality standards or a data quality framework
 - The data quality framework needs to be robust, comprehensive, and adaptable to future changes and challenges.
 - Adopting best practices and existing frameworks such as Singapore Skills Framework⁹, UK Government's Data quality framework which provides principles and practices to assess, communicate, and improve the quality of data¹⁰ and DATAVERSITY¹¹ to get an insight and could be adapted to the needs of NST.

Which storage or dissemination methods / infrastructure would be most valuable for enabling effective use of the NST?

- A summary in document form, API access and Excel download to suit stakeholder needs.
- Interactive platforms for easy dissemination.
- Training and workshops.
- Regular updates.
- Collaboration tools for effective stakeholder contribution

⁹ [SSG | Skills Frameworks \(skillsfuture.gov.sg\)](https://skillsfuture.gov.sg)

¹⁰ [The Government Data Quality Framework - GOV.UK \(www.gov.uk\)](https://www.gov.uk)

¹¹ [How to Implement a Data Quality Framework - DATAVERSITY](https://www.dataversity.com)