Global Skills Taxonomy Adoption Toolkit:

Defining a Common Skills Language for a Future-Ready Workforce

INSIGHT REPORT

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WORLD ECONOMIC FORUM

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World Economic Forum
91–93 route de la Capite
CH-1223 Cologny/Geneva
Switzerland

Tel.: +41 (0) 22 869 1212
Fax: +41 (0) 22 786 2744
contact@weforum.org
www.weforum.org

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Preface

Neil Allison
Head of Mission, Education, Skills & Learning, World Economic Forum.

Skills and talent shortages are critical challenges facing societies and economies today. The inability to attract talent with the relevant skills hinders business growth and economic prosperity and prevents individuals from realizing their full potential. As technology rapidly advances and economic landscapes continue to shift, the need for a common skills language has never been more urgent. This common language ensures that businesses and individuals alike can identify and develop the skills required to thrive. Relying solely on educational achievements, credentials and past experience as proxies for necessary skills perpetuates talent scarcity and excludes many who could contribute significantly to the workforce.

The World Economic Forum's **Global Skills Taxonomy** provides a structured and shared language for skills, helping businesses, governments and the education industry align on skill requirements and labour-market trends. By using this taxonomy, stakeholders can collaborate to effectively reskill and upskill talent, directly addressing labour-market shortages.

The adoption of a unified skills taxonomy offers numerous benefits. For businesses, it enables strategic workforce planning and more effective recruitment, broadens talent pipeline, and facilitates talent development, ensuring alignment between employee skills and evolving business needs. Governments can develop effective workforce policies that better meet market needs and enable strategic national priorities while the education industry can adapt their programmes to meet industry needs, equipping graduates with the relevant skills for success.

The Global Skills Taxonomy Adoption Toolkit serves as an essential resource and offers practical guidance for leaders across sectors – from businesses, governments and the education industry – to embed this taxonomy in their talent management strategies. The toolkit is designed for a wide audience, including:

- **Business leaders:** Chief Learning Officers (CLOs), Chief Human Resources Officers (CHROs), Chief Strategic Officers (CSOs), Chief Diversity and Inclusion Officers (CDOs), Chief Technology Officers (CTO), and Heads of Workforce Development, all of whom shape talent development.

- **Government officials:** Chief Skills Officers (CSKOs); Ministers and Directors of Education, Skills, and Employment; Chief Innovation Officers (CIOs); workforce policy advisors; and labour-market analysts, who play critical roles in nation's skills development policy and workforce readiness.

- **Education industry leaders:** Chief Academic Officers (CAOs), Chief Learning Officers, Directors of Curriculum Development, University Presidents, Chief Transformation Officers, Deans, and Heads of Career Services, all of whom influence curriculum alignment and graduate preparedness for market needs.

Grounded in research and extensive stakeholder input, this toolkit is both a resource and a call to action, enabling organizations to collectively build a resilient, future-ready workforce. By adopting this common framework, stakeholders can collectively address the challenges posed by the evolving labour market and prepare workers for the jobs of tomorrow.

This toolkit complements, integrates and builds upon other key publications of the World Economic Forum's Reskilling Revolution Initiative: *Building a Common Language for Skills at Work A Global Taxonomy*, *Putting Skills First: A Framework for Action* and *Putting Skills First Opportunities for Building Efficient and Equitable Labour Markets*.

For more information, or to get involved, please contact the World Economic Forum's New Economy and Society team at cnes@weforum.org.

Glossary

Abilities: Possession of the physical, psychomotor, cognitive and sensory means to perform a job.

Attitudes: Learned behaviours, emotional intelligence traits and beliefs that individuals exhibit that influence their approach to ideas, persons and situations.

Categorizations: Process of organizing items, concepts or data into distinct groups or classes based on shared characteristics or criteria. In the context of skills taxonomies, categorizations help structure skills into broader categories, making it easier to identify, classify, and manage different skill sets.

Competencies: Collection of skills, knowledge, attitudes and abilities that enable an individual to perform job roles.

Enabler: Factor or condition that facilitates the successful implementation or achievement of a particular goal, strategy or process. Enablers help ensure that objectives can be met effectively and sustainably.

Granularity: Level of detail or specificity in data or information. In a skills taxonomy, granularity indicates how finely or broadly skills are classified. A highly granular taxonomy provides detailed breakdowns of individual skills, while a less granular one uses broader categories to group skills.

Preferred skills: Skills that can be learned during onboarding and training or are used to perform non-essential job duties.

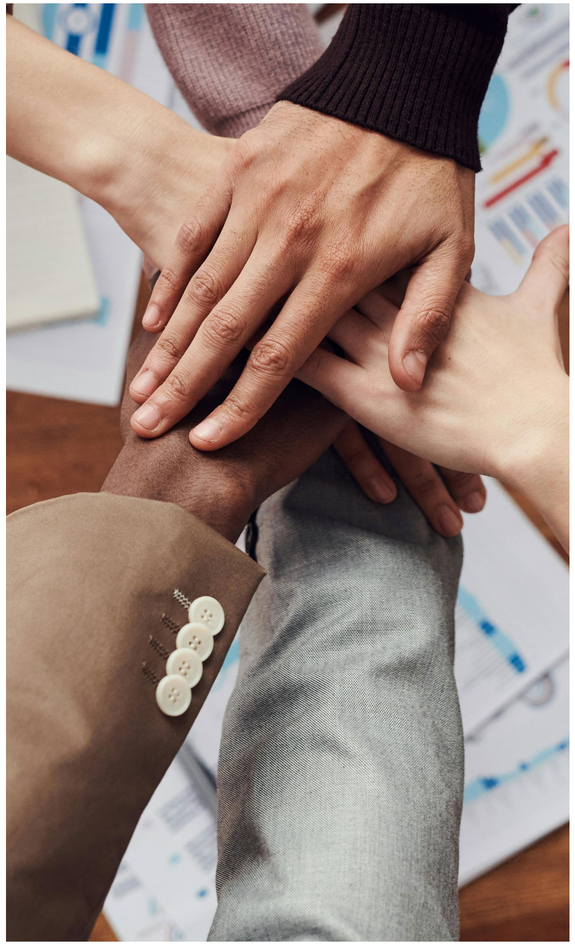
Proficiency: Level of expertise, competence or mastery an individual has in a particular skill or area of knowledge.

Required skills: Skills that are necessary to perform essential job duties.

Rich Skills Descriptors (RSDs): Metadata package that provides a standardized definition of a skill, including the context in which the skill is applied. RSDs typically include elements such as a concise skill name, skill statements, skill categories and various metadata. This metadata often includes information linking the skill to relevant keywords, along with other factors that help contextualize and categorize the skill.

Skills and knowledge: Skills are the capabilities needed to complete a task, and therefore a job. Knowledge is the body of facts, principles and theories that are related to a field of work or study, and that can be further split into dependent knowledge (practical and procedural) and context-independent or theoretical knowledge.

Skills taxonomy: A skills taxonomy organizes skills into categories or clusters based on their definitions. Both the structure and detail of a taxonomy vary depending on its intended use.



1 Why adopt a common skills taxonomy?

Adopting a common skills taxonomy is increasingly recognized as strategic imperative for aligning the efforts of businesses, governments, and learning providers in addressing critical skills and talent shortages. By providing a shared language, a skills taxonomy enables clearer communication about the specific skills in demand, helping employers identify the right talent, guiding educators in designing relevant training programmes, and empowering jobseekers to understand and showcase the skills they need to succeed.

The benefits of adopting a common skills language are substantial. For businesses, it enhances strategic workforce planning, streamlines recruitment and accelerates talent development by providing a structured approach to identifying and categorizing skills. This alignment ensures that employees' abilities evolve alongside changing business needs. A skills-first approach to hiring, which focuses on candidates' competencies rather than degrees or experience, broadens talent pools, facilitates faster and more inclusive hiring, and promotes diversity, equity and inclusion by creating opportunities for individuals from varied backgrounds who may lack formal qualifications but possess relevant skills. This approach also enhances workforce agility by allowing organizations to respond more effectively to market shifts through targeted reskilling, ensuring they remain competitive and resilient in a dynamic environment.

Governments, too, stand to benefit from a common skills taxonomy. It enables the development of workforce policies that not only support underrepresented populations and improve diversity, equity and inclusion in public employment services but also meet critical economic needs. By aligning workforce development with the skills most in demand, governments can better address talent shortages that impact national productivity, employment and economic growth. Additionally, learning providers and educational institutions can tailor programmes to align with industry demands, enhancing graduates' job readiness and employability. For individuals, a common skills language clarifies labour-market expectations, empowers career planning and bolsters employability.

Despite these benefits, skills taxonomy adoption often stalls due to several challenges. Barriers include a lack of clear incentives, misalignment between stakeholder goals, roles and responsibilities of different functions, limited understanding on how a skills taxonomy enables business transformation, low engagement, and the complexity of integrating a taxonomy into existing systems and practices. Additionally, businesses and governments may hesitate due to initial implementation costs and uncertainty about measurable outcomes.

Aligning on a global skills taxonomy is a critical step towards making skills the currency of the labour market. The Global Skills Taxonomy, developed by the World Economic Forum's network of partners, offers a structured and common language for skills, enabling better alignment among businesses, governments and learning providers, and a common understanding of labour-market trends and skills requirements. Organizations can adopt it directly, cross-walk it with their existing taxonomies, or use it to develop a bespoke taxonomy. The true value of the skills taxonomy is realized when it is leveraged by all stakeholders, creating a universally understood language that enhances collaboration and alignment.

As a foundational tool of the World Economic Forum's **Reskilling Revolution Initiative**, the Global Skills Taxonomy underpins its public-private partnerships and thought leadership products, such as the *Future of Jobs Report*. Insights from this report help organizations respond to labour-market shifts by identifying both prominent and emerging skills relevant to workforce development strategies. By using this common language, organizations can effectively plan and implement reskilling and upskilling programmes, ensuring their workforce is prepared for future challenges.

> **The skills taxonomy is just a means to an end. The end is, we have the readily skilled workforce for the economy.**
> SkillsFuture Singapore

> **The interconnectivity that offers a skill taxonomy is crucial – it's not just about having a list of skills. It's about mapping those skills to organizational needs, learning pathways, future career development, and understanding what employees need to grow.**
> Pearson

2 A roadmap for action

Based on a synthesis of recent research, review of current practices and expert consultation, this section proposes a roadmap for action, complemented by illustrative examples and case studies, for businesses, governments and learning providers interested in adopting a common skills language in their organization. The steps to adopt the skills taxonomy are organized into three phases and three enablers (Figure 1).

For each phase, this toolkit provides:

- A set of **actions** that organizations and governments can take as they embark on a skills taxonomy journey and adopt wider skills-based talent management practices.
- **Key insights** that provide critical evidence, actionable resources and practical guidance on common barriers and bottlenecks to skills taxonomy implementation.
- Illustrative **case studies** that help organizations connect with others who have implemented the Global Skills Taxonomy and benefit from lessons learned.

FIGURE 1

Global Skills Taxonomy adoption roadmap

Key enablers

Through consultations with experts, policy-makers and business leaders, three key enablers consistently emerged as essential for adopting a common skills language: aligning skills initiatives with strategic goals, fostering a skills-first culture, and securing continuous buy-in from internal and external stakeholders. These enablers address adoption barriers like unclear business case, limited engagement and fragmented stakeholder support. By embedding these enablers into skills-based initiatives, organizations and governments can increase the impact, sustainability and return on investment of skills-based approaches. Together, these enablers ensure smoother implementation and unlock the full potential of a unified skills language for lasting workforce resilience.

Key Enabler 1: Aligning skills with strategic goals

Aligning skills with strategic needs and objectives is essential for both businesses and governments to maximize the impact of skills-first approaches. For businesses, this means identifying and addressing specific, high-impact talent challenges where a common skills language can directly contribute to key outcomes. These challenges include improving talent attraction and retention, enhancing workforce productivity, driving innovation, streamlining recruitment, advancing employee development and fostering a culture of lifelong learning.

For governments, aligning skills with national priorities involves identifying critical, high-impact talent priorities and setting frameworks that promote a standardized skills language. National skills-first strategies should focus on immediate priorities, such as improving productivity and competitiveness, addressing labour-market imbalances, enhancing public-service efficiency, and supporting lifelong learning initiatives. Both businesses and governments must ground their skills-first strategies in practical, outcome-focused needs to ensure long-term success. See Figure 2 for common use cases of skills taxonomies.

> **To make a skills-based approach truly effective, start by aligning its implementation directly with your business priorities and transformation challenges. Focus on integrating learning into the employee journey where it can deliver immediate impact – whether that's driving innovation, supporting growth initiatives or enhancing agility. By tying learning outcomes to real business needs, you'll not only create value from day one but also build momentum, positioning skills-based learning as a vital partner in achieving strategic goals and enhancing the employee experience.**
> SAP

FIGURE 2

Common use cases of the Global Skills Taxonomy for businesses, governments and the education industry

Workforce planning	Leverage data analytics to overlay skills supply and demand and forecast skills trends at the global, country, industry and business levels.	●●●
Inclusive recruitment and skills-based hiring	Articulate skills need in job descriptions. Emphasizing skills not only makes recruitment more inclusive, enabling individuals from non-traditional and underrepresented backgrounds to compete based on their demonstrated abilities, but also facilitates stronger talent matching, leading to increased retention and productivity within organizations.	●●
Learning, training, and development	Co-develop and co-deliver skills-based training programs that align with the identified skills gaps, and ensure skills taught are skills sought in the market. Inform training and curriculum design to better align with industry needs. This will enhance the relevance and attractiveness of educational programmes and offer students clarity on pathways to work.	●●●
Career counseling and guidance	Assist learners in understanding potential career paths and labor-market demands, enhancing their employability.	●●
Employment services	Use skills forecast and trends as a basis to expand talent pools, address skill shortages, and improve alignment between candidates and job opportunities.	●
Social inclusion and mobility	Develop programmes tailored to the specific skill development needs of marginalized groups and migrant workers to foster social inclusion and mobility, improve workforce integration and reduce inequality.	●●
Certification and credentials	Design certifications, credentials and assessments that verify proficiency in specific skills and competencies.	●●●
Internal mobility and talent management	Redefine internal mobility strategies and create skills-based pathways for workforce development and redeployment.	●
Set common standards	Define proficiency levels for emerging skills, which can help better assess skill levels and gaps and better align training to talent needs.	●●●

● Businesses ● Education Industry ● Governments

Key Enabler 2: Embracing a skills-first culture, policies and mindset

Embracing a skills-first culture is crucial for organizations and governments to navigate the rapidly evolving labour market and adapt rapidly to technological advancements, as it fosters adaptability and prepares the workforce for future challenges. This approach involves creating environments that prioritize the development and recognition of a diverse range of skills within the workforce, emphasizing the importance of curiosity and lifelong learning, and recognizing the return on investment from nurturing talent. It also highlights the value of workforce diversity, which can drive innovation and adaptability. To embrace this vision, it is essential to identify the critical skills present and needed within their workforce. By viewing each role as a combination of skills, proficiencies, experiences, values, attitudes and mindsets, organizations can adopt a more flexible and responsive approach to workforce development. Leadership sponsorship and robust governance mechanisms are vital to ensure the sustainability of a skills-first culture.

Learn more how **HSBC**, and the **government of Singapore** set up the foundations for a successful skills-first culture.

> **Securing buy-in for a skills-based approach relies on a shared vision and strategic alignment with business and talent goals. Showing clear return on investment and the benefits of a skills-first culture has been critical for engaging leadership and employees alike.**
> EY

Key Enabler 3: Continuously ensure buy-in and alignment with internal and external stakeholders

Ensuring buy-in and alignment with internal and external stakeholders involves linking the skills-first culture to overarching business and workforce goals, both at the organization or national level. This involves telling people and leadership "what is in it for them", so that they can see the value for business and individuals. Establishing clear criteria to measure the benefits, return on investment and impact of adopting a skills-first approach. Such criteria not only facilitate the monitoring of progress but also help in communicating the value and effectiveness of this approach to all stakeholders.

Continuous engagement and feedback mechanisms are crucial for maintaining alignment and securing ongoing support. This can be achieved by establishing regular communication channels that allow for the exchange of insights and feedback between the organization or government and its stakeholders. These channels should be designed to be inclusive and accessible, ensuring that all voices are heard and considered in the ongoing development of the skills-first culture. See **Key insight 1** to learn more.

Find out how **Georgia's National Skills Agency** ensured alignment between the private and public sectors to promote a skills-first culture at the national level.

> **We're taking the taxonomy and actually refining our definitions and measurement criteria into an actual tool. A key part of this process involves closely collaborating with individuals in the workplace to ensure that our definitions hold up in real-world application. Engaging directly with users has been invaluable – it not only guides us in refining our definitions but also strengthens our measurement approach, ensuring that the taxonomy remains aligned with actual workplace needs.**
> ETS

Key insight 1: Create the foundations for a skills-first culture

A key challenge in the process of adopting the Global Skills Taxonomy and fostering a skills-first culture common to businesses, governments, and learning providers is establishing a culture where skills are trusted and recognized. This can be achieved by:

- **Engaging senior leadership early to gain their buy-in**, understand their concerns, and align on the long-term vision. For businesses, this might involve demonstrating how skills can help track the impact of learning and development budgets on business outcomes. For governments, it could mean showing how a skills-first approach can drive economic growth and improve public services.
- **Focusing on answering the "what's in it for me" for key stakeholders**, ensuring they see the benefits of adopting a skills-first approach.
- **Consistently communicating with relevant stakeholders.** For companies, this includes HR, other departments and employees; for governments, it means engaging with other governmental institutions, the private sector, learning providers and labour unions.

Find out how Unilever created the foundations for setting up a successful skills-first culture.

Adoption roadmap for businesses, governments and the education industry

Phase 1 of adopting a skills taxonomy begins with identifying strategic priorities and addressing critical talent challenges that a skills-based approach can solve. For businesses, challenges could range from skill mismatches, talent shortages, productivity challenges, retention issues, lack of attractiveness in certain roles and industry, and innovation promotion. A skills-based approach helps optimize talent management by forecasting future skills needs and industry trends, enabling proactive, data-informed decisions. Businesses can close talent gaps through skills-first hiring and targeted upskilling and reskilling initiatives. This approach not only addresses immediate needs but also strengthens the organization's competitive edge by ensuring a workforce prepared for emerging demands.

For governments, key issues include skills gaps that limit economic growth, mismatches between educational outcomes and market needs, job placement difficulties, workforce readiness, and disparities in economic and educational attainment. Tackling these challenges promotes a more adaptable, inclusive and resilient economy.

Governments can start by implementing skills-based policies to close labour-readiness gaps and enhance competitiveness. Initiatives might include assessing future skills needs, promoting upskilling programmes and improving job-matching services to align job seekers with high-demand roles. A skills-focused approach also enables more effective reduction of economic and social disparities by aligning education and workforce development with actual market demands.

For the education industry, common challenges include misalignment between educational programmes and rapidly changing industry requirements, low learner engagement, and inadequate skill verification. Adopting a skills taxonomy can help address these issues by providing a framework that connects educational content directly to in-demand skills. By partnering with employers to align curricula with market demands, educational institutions can ensure that students acquire the specific competencies needed in the workforce. Additionally, skills verification becomes more robust and transparent, giving students and employers greater confidence in the practical value of their education (see Figure 2 for common use cases of the Global Skills Taxonomy).

Phase 2 focuses on assessing and identifying the skills needed to meet these strategic priorities. Establishing governance mechanisms in **Phase 3** is essential for sustaining a skills-first culture and ensuring governance of skills in the organization or across government agencies.

The following sections offer actionable insights and case studies to support each stage of an organization's skills taxonomy journey.

3

Phase 1: Identify strategic priorities and embed change by adopting skills-based practices

1. Forecast skills needs and trends to inform decision making

Businesses and the education industry

The Global Skills Taxonomy is a powerful tool for organizations to forecast and benchmark skills needs by analysing current workforce capabilities and identifying emerging trends at global, country and industry levels.

By identifying specific skills key to job roles and overlaying skills supply and demand data across the organization, industry or country, businesses can better anticipate where skills gaps are prevalent or emerging, and target plans and investment accordingly. This foresight enables informed decision-making around reskilling, upskilling and talent redeployment, ensuring a workforce prepared for future challenges.

The Global Skills Taxonomy serves as the foundation for the World Economic Forum's **Future of Jobs Report**, a key resource for organizations to identify both established and emerging skills critical to workforce strategies across industries and regions.

Learn more how **EY** uses its skills taxonomy to support workforce planning.

Governments

Utilizing data analytics helps to better understand current skills and labour-market trends, projecting future skill needs for economic growth. Governments can use these insights to develop strategies that address skills gaps and labour shortages, enhancing the overall competitiveness of the economy.

In addition, it is important to implement a systematic approach to continuously monitor skills and establish metrics to assess progress in workforce development, social inclusion and economic competitiveness. Key indicators – such as labour-market participation, unemployment rates and skills gaps, particularly within marginalized communities – should be tracked to identify shortages and guide targeted training programmes. This continuous analysis provides crucial labour-market insights, enabling timely interventions, strategic planning and policies that strengthen workforce resilience and align with national economic objectives.

Governments can use resources like the Forum's Future of Jobs Report, leveraging the Global Skills Taxonomy, to understand how technological, economic, and societal shifts impact jobs and skills. The report offers insights into emerging skills, helping governments shape workforce policies for global market demands.

See **Key insight 2** to find a breakdown of emerging skills and jobs, at the global, industry and country levels, leveraging the Global Skills Taxonomy.

> **We're enhancing our workforce planning, especially our 3- to 5-year outlook, by focusing on the skills needed for future success with both quality and strategic insights. This review has gone beyond hiring volumes to assess specific skills across business areas, helping us identify gaps, areas of growth, and skills that may be declining. As a result, we can now better prioritize and direct our investment in skills development where it will have the greatest impact.**
> HSBC

Key insight 2: Forecast global, country, industry and job-specific skills trends

The World's Economic Forum Future of Jobs Report provides organizations with the core and emerging skills relevant to workforce development strategies. The following figure lists core skills at the global, country and industry levels and is taken from the Future of Jobs Report 2025.[7]

Global Top 5 skills on the rise, by 2030

- AI and big data
- Networks and cybersecurity
- Technological literacy
- Creative thinking
- Resilience, flexibility and agility

Industry Profile: Accommodation, Food, and Leisure Industry's Core Skills in 2025

- Resilience, flexibility and agility
- Analytical thinking
- Leadership and social influence
- Creative thinking
- Dependability and attention to detail

Country Profile: Argentina's Core Skills in 2025

- Analytical thinking
- Leadership and social influence
- Empathy and active listening
- Resilience, flexibility and agility
- Creative thinking

Learn more about how macrotrends and technology related trends will shape the workplace of the future in the World Economic Forum's The *Future of Jobs Report 2025*.

2. Adopt skills-based hiring practices

Businesses and the education industry

Using a skills taxonomy is the first step to embark on skills-first hiring practices. Skills-first hiring consists of featuring skills and competencies in job descriptions, adopting common standards for designing and adopting skills-based assessments, and aligning on common standards for documenting, recognizing and verifying skills earned. Skills-first hiring allows organizations to tap into diverse talent pools by, when appropriate, being flexible with formal degree requirements as a pre-condition for hiring, and prioritizing and assessing candidates' current skills, capabilities and potential.

Learn more about how **Skillsoft** leverages technologies such as artificial intelligence (AI) for skills-based assessments.

Governments

First, adopt skills-first practices in national employment services by revising job descriptions to focus on essential skills, standardizing skills recording and verification, and implementing skills-based assessment tools. Leveraging AI-driven technologies and algorithms for skills-based job matching on employment platforms enables a more precise connection between jobseekers and roles suited to their capabilities. Promoting skills-based hiring and career progression within the private sector can help governments cultivate a more adaptable workforce. This approach not only strengthens jobseekers' employment prospects and aligns talent supply with industry demand; it also builds a culture that values skills as the primary driver of career advancement, empowering individuals to shape their professional paths more effectively.

See:

- **Key insight 3** to learn how to adopt skills-based assessments and examples of assessment methods.
- **Key insight 4** to learn how to leverage the Global Skills Taxonomy to establish common standards by defining proficiency levels that reflect an individual's abilities and knowledge within a particular skill.
- **Key insights 5** to learn how to embed skills and proficiency levels in job descriptions.

> **Leveraging skill taxonomies with advancements in AI, we can help organizations and the workforce, align learning with transformation priorities. By integrating skill assessments into the employee journey, we build innovation and agility for the enterprise and career opportunity for their people. This approach addresses common challenges by mapping skills to job roles and providing real-time practice through AI-driven learning experiences. This alignment enhances workforce capability and supports career mobility, making skills the currency that drives both organizational success and individual professional growth.**
> Skillsoft

Key insight 3: How to adopt skills-based assessments

Many organizations are shifting from traditional candidate assessments to using skills-first assessments[6,7] to match individuals to roles based on skills and provide tailored development pathways. Skills-based assessments offer insights into an employee's current skills, level of expertise and areas for growth. For this approach to be effective, it is essential to understand not only the skills each candidate or employee possesses but also the depth of their expertise. Key characteristics for designing and deploying such skills-based assessments are:

- **Role specific:** Ensure assessments are tied to day-to-day tasks.
- **Equity oriented:** Design should be inclusive and catered to the needs of all test-takers.
- **Cognitively demanding:** Develop challenging questions that accurately measure candidates' skills.

Adopting skills-based assessments involves leveraging a skills taxonomy to identify the critical skills for each role. Engaging hiring managers and team leaders to identify essential competencies and skills further ensures that assessments align with actual role requirements. The following are examples of assessment methods that have arose from our consultations with experts, policy-makers and business leaders:

- **Self-ratings and peer reviews:** Employees can self-assess their skills, with supplementary feedback from managers or colleagues when appropriate. This dual perspective provides a comprehensive view of how individuals apply their skills on the job, accounting for potential biases in self-assessment. Insights from this method are commonly used to design tailored training, support career development and facilitate organization-wide skills mapping.
- **Technical tests:** Standardized technical tests, such as coding challenges or problem-solving exercises, measure proficiency in specific skills, allowing for consistent comparisons across candidates in recruitment processes.
- **Work samples and simulations:** Realistic job simulations or work samples enable prospective candidates to showcase role-specific skills in practical scenarios, offering valuable insights into their likely performance on the job.
- **Behavioural assessments:** Tools such as personality tests, situational judgment tests and structured interviews evaluate soft skills like teamwork, communication and leadership in candidates.

While skills-based assessments can enhance hiring accuracy and fairness, organizations must design them thoughtfully to address potential limitations:

- **Bias mitigation:** Poorly designed assessments can still harbour bias. For instance, self-rating methods may reflect cultural or gender biases in self-perception.[8, 9]
- **Balancing test performance with other metrics:** Avoid over-relying on any single assessment method; a balanced approach can provide a more holistic view of candidates' abilities.
- **Ensuring accessibility:** Online assessments should be accessible to all candidates, including those with limited digital access.
- **Data quality in AI:** When using AI-driven assessments, ensure the underlying data reflects diverse groups to prevent unintentional bias based on gender, ethnicity or language differences.

Incorporating skills-based assessments effectively requires an inclusive, balanced approach, ensuring that assessment methods align with organizational goals and promote equitable opportunities for all candidates.

> **By using innovative skills assessment methods, like game-based assessments, we've identified talent that might otherwise be overlooked if evaluated solely on degrees or work experience. This approach has helped diversify our talent pools and improve retention rates.**
> Randstad

Key insight 4: Set common standards through proficiency levels

The taxonomy may be used to define proficiency levels for emerging skills, which can enable better assessment of skill levels and gaps, and help learning providers better align content to talent needs. The following is an example of proficiency levels for a Level 4 skill of the Global Skills Taxonomy: Cybersecurity and application security.

Skill name	Cybersecurity and application security (level 4)		
Skill descriptor	Using technologies, processes and practices to protect computers, networks, programmes and data from unauthorized access or attacks that are aimed at exploitation.		
Skill descriptor by proficiency levels	**Foundational**	**Experienced**	**Advanced**
	Understands basic cybersecurity principles and common security threats – Can identify and follow basic cybersecurity practices – Aware of fundamental security policies and compliance requirements	In-depth understanding of cybersecurity frameworks – Familiar with common network and application vulnerabilities – Proficient in using security tools – Ability to identify and mitigate security risks in applications, networks and systems	– Expert knowledge of advanced cybersecurity techniques – Specializes in advanced application security practices – Expertise in cryptographic methods, identity and access management (IAM), and risk management frameworks – Deep understanding of compliance requirements and experience in implementing enterprise-level security strategies – Proficient in security automation and orchestration tools

Key insight 5: How to embed skills and proficiency levels in job descriptions

Skills-first hiring incorporates skills into the recruitment process, enabling organizations to identify the best candidates, improve job performance and productivity, and promote inclusivity. By using skills taxonomies, organizations can map specific skills and proficiency levels to job roles, creating a more precise and effective hiring framework. To harness the full potential of skills-first hiring, organizations can refine their job descriptions by:[2]

- Consistently emphasizing skills and competencies in job postings.
- Clearly differentiating between required and preferred skills.
- Removing formal degree requirements where appropriate.
- Eliminating biased language, using clear terms, and including an equal-access or inclusivity statement.

The following is an example of what a skills-based job role can look like, developed by SkillsFuture Singapore:[5]

Job Role: Designer (Engineering Design)

Critical work functions	Key tasks	Performance expectations
Develop technical drawings and engineering designs	– Interpret engineering calculations for dimensioning in technical drawings to support product and system designs – Create design drawings, schematics and layouts for feasibility, practicability and completion timeframe – Create 3D models based on design specifications – Highlight design and engineering gaps in technical drawings and designs – Ensure compliance with industry standards and international conventions in drawings and models	In accordance with: Workplace Safety and Health (WSH) Act; Building Control Act; Fire Safety Act
Employ advanced analytics and big data	– Source design data from databases and/or existing designs – Prepare technical and business reports based on data analysis findings	

Key insight 5: How to embed skills and proficiency levels in job descriptions

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Job Role: Designer (Engineering Design)

Critical work functions	Key tasks	Performance expectations
Implement sustainable design initiatives	– Identify relevant regulations and standards for sustainability in engineering designs – Conduct research for sustainable design and product innovations – Support implementation of sustainable design initiatives	In accordance with: Workplace Safety and Health (WSH) Act; Building Control Act; Fire Safety Act
Adhere to Design for Safety (DfS) regulations	– Propose modifications to design plans to reduce design risks – Provide relevant safety information in design, construction and maintenance manuals – Maintain DfS records of key decisions made with respect to design risks and modifications	

Key insight 5: How to embed skills and proficiency levels in job descriptions

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Technical skills and competencies		Top 5 generic skills and competencies	
Skill	**Proficency***	**Skill**	**Proficency**
3D modelling (Level 3)	Intermediate	Digital literacy	Intermediate
Continuous improvement management (Level 2)	Basic	Teamwork	Advanced
Data and statistical analytics	Basic	Virtual collaboration	Intermediate
Design for safety	Intermediate	Computational thinking	Basic
Engineering drawing and design specification	Intermediate	Communication	Basic
Engineering drawing interpretation and management	Basic		
Environmental management system framework development and implementation	Basic		
Hazards and risk identification and management	Basic		
Programme management	Basic		
Quality system management	Basic		

Key insight 5: How to embed skills and proficiency levels in job descriptions

Skills-first hiring incorporates skills into the recruitment process, enabling organizations to identify the best candidates, improve job performance and productivity, and promote inclusivity. By using skills taxonomies, organizations can map specific skills and proficiency levels to job roles, creating a more precise and effective hiring framework. To harness the full potential of skills-first hiring, organizations can refine their job descriptions by:[2]

- Consistently emphasizing skills and competencies in job postings.
- Clearly differentiating between required and preferred skills.
- Removing formal degree requirements where appropriate.
- Eliminating biased language, using clear terms, and including an equal-access or inclusivity statement.

The following is an example of what a skills-based job role can look like, developed by SkillsFuture Singapore:[5]

Technical skills and competencies		Top 5 generic skills and competencies	
Skill	**Proficency***	**Skill**	**Proficency**
Sustainable engineering	Intermediate		
Technical writing	Basic		
Technology application	Basic		
Workplace safety and health framework development and implementation	Basic		

* Skills Future Singapore structures technical skills into six levels, which have been classified into Basic (Level 1-2), Intermediate (Level 3-4), and Advanced (Level 5-6) for this example.

3. Address skills needs through tailored learning opportunities

Businesses and the education industry

Organizations can embrace skills-based training by:

- Developing targeted learning objectives that align closely with the skills most valued in the industry.
- Providing employees with accessible learning resources to support ongoing skill acquisition.
- Offering hands-on opportunities and real-world experiences to reinforce skill development.

Aligning training programmes with the organization's strategic goals and skill demands not only addresses current workforce needs but also enhances engagement by making learning practical and directly relevant to employees' roles and career growth. Additionally, creating a feedback loop between industry trends and internal training programmes allows organizations to proactively adapt to future skills requirements, fostering a culture of continuous development and resilience.

Learn more about how **Agility** and **HSBC** equip employees with required competencies through tailored learning opportunities.

Governments

Aligning education and training programmes with national skills needs, by collaborating with learning providers and industry partners to regularly update curricula and training materials, ensures that they reflect current and emerging skills. Streamlining skills recognition processes enhances employability and career progression. Additionally, it is also helpful to promote continuous skills development by offering incentives and subsidies for ongoing education and training, where budget permits, while ensuring access to training resources for all individuals. This approach fosters a culture of lifelong learning that meets the dynamic demands of the labour market.

Learn more about how the **government of Singapore** and the **Sultanate of Oman** promote a culture of lifelong learning.

See **Key insight 6** to learn more about mapping skills to learning.

> **We often underestimate the impact of aligning learning content with specific skills rather than broad topics. When content is skill-focused, it becomes much more relevant for the learner, providing clear direction on the exact skills they need to develop.**
> Ingka Group

Key insight 6: Map skills to learning opportunities

The Global Skills Taxonomy can be used to map learning opportunities. The following is a sample of what such mapping could look like from an organization that is part of the Forum's Skills Consortium.[1]

Global Skills Taxonomy Level 2	Global Skills Taxonomy Level 3	Product development roles	Data and AI roles	Care and healthcare roles
Technology skills	Technological literacy			Data Augmented Technology Assisted Medical Decision Making (University of Michigan on Coursera)
	Programming	Beginner Python & Math for Data Science (Kaplan Professional)	Data Science: Machine Learning and Predictions (EdX)	Healthcare Payor Data Warehousing and Analysis (Infosys Wingspan)
	Design and user experience	Build Your First Web Pages with HTML and CSS (Open Classrooms)		
	Networks and cybersecurity		Introduction to AWS Identity and Access Management (IAM)	
	Artificial intelligence and big data	AI for Product Managers (Udacity)		AI for Healthcare (Udacity)

4. Leverage skills for career progression and performance management

Businesses and the education industry

Continuously and accurately tracking skills helps to create tailored, unbiased skills-based progression opportunities for individuals. Organizations can emphasize the importance of skill development by recognizing and rewarding skills through skills-based pay and compensation structures, recognizing and rewarding employees for skill mastery and advancement. Additionally, it is important to regularly monitor skills within performance management using metrics that assess both individual and organizational progress. Key indicators – such as retention rates, skills gaps, learning hours, completion rates and internal mobility rates – offer valuable insights into the effectiveness of skills-based initiatives and help identify areas for improvement. This systematic approach ensures alignment with organizational goals and fosters a culture of learning and agility.

See **Key insight 7** to learn more about how to create skills-based pathways for development and redeployment.

Learn more about how **Pearson** leverages skills taxonomies to deliver career and learning pathways.

Key insight 7: Create skills-based pathways for development and redeployment

Skills-first talent development is an approach that prioritizes the development and utilization of an individual's skills and competencies over traditional job titles and credentials. This approach empowers individuals to take control of their career paths, exploring both upward mobility and alternative roles within the same organization. It enables organizations to better align employees' skills with evolving needs, stay competitive, retain talent and enhance efficiency and productivity. This can be achieved by:

- **Assessing and matching skills:** Identify overlap between skills to facilitate internal mobility opportunities between different roles.
- **Personalized learning pathways:** Develop personalized learning pathways, based on individual skills, providing access to training opportunities, on-the-job training and actionable goals to support career transitions.
- **Mentorship programmes:** Encourage the creation of mentorship programmes, offering guidance, support and advice from more experienced colleagues to help individuals navigate their career development.

4 Phase 2: Assess and identify critical skills for future readiness

1. Identify critical skills for the workforce

Businesses and the education industry

Depending on the use case, there are two types of data that organizations can used to understand their skill needs. This includes Human Resources (HR) and Learning and Development (L&D) data – such as work history, credentials, performance goals, self and peer skill assessments, job architecture and project documentation. To pinpoint critical skills that the organization possesses or needs to achieve strategic objectives, several tailored approaches can be considered (Figure 3).

Learn more how **SAP** is leveraging new technologies for skills assessment and mapping skills demand and supply.

Governments

Governments can combine two approaches to identify key information on sectors, occupations, and both current and emerging skills.

- **Leverage data:** Use existing data sources, such as labour-force surveys, business surveys, job advertisements, administrative records, training participation data and international frameworks.

- **Stakeholder engagement:** Engage in consultations with industry stakeholders, labour unions and learning providers to validate findings and secure buy-in.

This approach will not only contribute to a granular skills mapping and ensure stakeholder buy-in, but it can also allow the identification of the key initiatives needed to leverage skills to enhance business competitiveness and support employment and employability.

AI-driven analytics can enhance data analysis and forecasting, while resources like the World Economic Forum's Future of Jobs Report offer country-level insights to prioritize skills and guide training objectives.

Find out how the **government of Australia** is developing a National Skills Taxonomy.

See **Key insight 8** to learn how emerging technologies can be leveraged to streamline skills mapping.

> **Identifying both the critical skills the organization currently possesses and those needed to support the overall business and workforce strategy is essential. Without this alignment, efforts risk becoming siloed or disconnected from strategic goals, leading to wasted resources and missed opportunities.**
> PwC

> **AI has dramatically transformed the skills mapping process, reducing what once took 12 to 18 hours to a matter of moments. With advanced algorithms and user-friendly tools, anyone can now harness the power of technology to visualize and cross-reference taxonomies. This shift not only accelerates the process but also allows us to efficiently analyse vast amounts of data that human brains simply can't handle alone.**
> HSSO Australia

FIGURE 3

How can businesses identify critical skills in their organization?

		Examples
Targeted prioritization	Begin by focusing on high-impact roles or critical skills tied to strategic goals. This focused approach allows you to address urgent skills needs and make steady progress without requiring a comprehensive mapping initiative.	Organizations undergoing digital transformation might prioritize skills in data analysis or cybersecurity, identifying gaps in these areas and implementing focused upskilling programmes. Likewise, companies seeking to build leadership pipelines could implement career progression programmes that emphasize key competencies such as leadership, creativity, and problem-solving, supporting individuals as they advance.
Industry benchmark and trends	Industry benchmarks and sector-specific skill trends offer valuable guidance on sector-specific skill gaps and future needs. The World Economic Forum's *Future of Jobs Report*, for example, provides insights to help organizations prioritize in-demand core skills and future skills and set relevant training goals.	A company aiming to remain competitive in green energy might leverage insights from industry trends to prioritize skills in environmental stewardship and adjacent skill requirements such as AI, big data, resilience, flexibility, and agility.
Skill inventory	Self-assessment tools and manager evaluations provide a baseline for gathering skills data and can be gradually scaled up. To reduce potential biases in self-assessments, consider supplementing this data with peer or manager reviews and alternative data sources, such as job descriptions, work history, credentials and performance goals. This will enable employees to have a more comprehensive understanding of skills. AI-powered platforms can further support skills mapping by offering detailed insights into workforce capabilities.	Organizations looking to identify high-potential talent for redeployment could leverage a detailed skills inventory to understand both technical and soft skills within their workforce, enabling more accurate placement and targeted upskilling recommendations for job transitions.

Key insight 8: Benefits of leveraging new technologies for skills mapping

Technologies like machine learning, AI and Gen AI are increasingly used for faster and more accurate skills assessments by analysing job descriptions, work history, educational background, certifications and performance reviews. While these technologies can be used to streamline the process, they must be used carefully and responsibly.

Benefits of leveraging these technologies include:

- **Time efficiency:** They reduce manual effort and significantly reduce skills mapping time by analysing large data volumes and automatically extracting relevant skills.
- **Improved consistency and accuracy:** They apply uniform criteria for skills classification, reducing variability and accuracy across the organization.
- **Enhanced governance:** They offer scalable, data-driven approaches with built-in workflows to maintain quality control.
- **Dynamic skill matching:** They can continuously update skills mapping using real-time data from various sources.
- **Validated content for workforce management:** They provide validated skills data to support workforce planning, career development programmes and training initiatives.

2. Leverage a skills taxonomy to establish a common skills language

Businesses and the education industry

Organizations can establish a common skill language by adopting a standardized taxonomy, such as the Global Skills Taxonomy, and tailoring it to meet specific organizational needs.

Determining how detailed the taxonomy should be is critical, and based on its intended use, current stage of skills development, and resources available for ongoing maintenance. For example, organizations that need to closely track specialized skill sets or place employees in highly technical roles (such as software developers or data analysts) may require detailed classifications from the outset. This could include specific technological skills, coding languages or project management competencies that are essential for such roles. In contrast, organizations focused primarily on broader upskilling or reskilling needs – such as fostering AI literacy or building general leadership skills – might benefit from starting with broader skill categories that can be refined over time as the taxonomy matures.

To ensure the taxonomy's relevance, pilot test it with select teams, gathering feedback to refine and create targeted training resources for HR, managers and employees.

Governments

Governments should establish a common skill language by adopting a standardized taxonomy, with a level of detail or granularity that aligns with their country's strategic workforce goals and development stage. Broader frameworks like the Global Skills Taxonomy offer simpler categorizations, while more detailed taxonomies like ESCO provide highly specific skill categories but may require regular updates to stay relevant.

For economies with advanced workforce needs or specialized sectors, a highly detailed taxonomy enables precise identification of sector-specific skills and gaps, helping tailor training programmes that boost competitiveness. Economies that are just starting out on their skills journey or undertaking large-scale reskilling might begin with broader skill categories, increasing granularity as workforce development needs progress. Where resources or capacity for frequent updates are limited, a less granular approach can simplify management and ensure alignment with broader strategies.

To ensure relevance, it may help to pilot the taxonomy with select government agencies or industries, gathering feedback to refine it and produce tailored guidelines or toolkits for stakeholders.

See:

- **Key insight 9** to learn about the key properties of a skills taxonomy.
- **Key insight 10** for examples of the granularity of international skills taxonomies.
- **Key insight 11** for an example of how to cross-walk different taxonomies.

Find out:

- How **Agility** leveraged the Global Skills Taxonomy to drive their targeted leadership development programme.
- How **Coursera** has applied a highly granular skills taxonomy to accurately tag and track course-based skills.
- How **ETS** cross-walked its taxonomy to the Global Skills Taxonomy to develop a common language of skills, from childhood into adulthood.
- Why the **Sultanate of Oman** employs a less granular skills taxonomy while the **government of Singapore** has developed a highly detailed one.

Key insight 9: Key properties of a skills taxonomy

Globally, there are a variety of skills taxonomies in wide use, by both the public (e.g. O*NET, ESCO, Singapore's Skills Framework), and private (e.g. Coursera, LinkedIn, Workday) sectors. The World Economic Forum's Global Skills Taxonomy is an effort to provide a translation tool between such different taxonomies.

Regardless of which skills taxonomy an organization chooses to adopt or adapt, there are key properties to consider:[1,3]

- **Comprehensive:** Effectively describe skills for all roles or occupations.
- **Interoperable:** Supports and enhance rather than conflicts with existing standards.
- **Accessible:** User-friendly, with accessible language and design.
- **Customizable:** Able to speak to the needs of the organization and national context.
- **Granular:** Able to explore specific skills and skills adjacencies at the required level of detail.
- **Dynamic:** Reflect the fast-changing labour market and maintain sufficient flexibility to be updated regularly.

> Our reference point is now the Global Skills Taxonomy – it provides an excellent model for structuring programmes that support people as they develop skills for a constantly changing future. It's a solid foundation for skill-building across the organization, whether for leaders or team members alike.
> Agility

> We're finding that in skill taxonomies, more isn't always better. The most useful taxonomy strikes a balance—descriptive enough to capture organizational or industry-specific contexts without becoming overwhelming.
> Pearson

Key insight 10: Examples of the granularity of international skill taxonomies

World Economic Forum Global Skills Taxonomy (GST)	The Global Skills Taxonomy, developed by the World Economic Forum's network of partners, provides a harmonized language for skills that addresses the evolving skills needs of the global workforce. It is designed to be a cross-functional tool that bridges industries around the world. It classifies **93 distinct skills** into two broad categories: Skills, Knowledge and Abilities, and Attitudes.
Occupational Information Network (O*NET)	O*NET is an occupation-based database developed by the United States Department of Labor. O*NET categorizses **35 distinct skills** into two broad categories – Basic Skills and Cross-Functional Skills – and identifies **52 distinct abilities** which are required in different occupations across industries.
European Skills, Competences, Qualifications and Occupations (ESCO)	ESCO is a skills and occupations database developed by the European Commission. ESCO categorizes **13,485 distinct skills**, specific to different sectors and occupations, into three groups: Skills, Competences and Knowledge. ESCO provides a highly granular breakdown, covering both generic competences and very specific technical skills required in specific job roles.
Singapore Skills Framework (SFw)	The Singapore Skills Framework (SFw) is a detailed and sector-specific skills taxonomy developed by SkillsFuture Singapore. It categorizes **over 2,000 different skills** across industries into two broad categories: technical skills and competencies (TSCs) and generic skills and competencies (GSCs).

> In Singapore, large banks often maintain their own skills taxonomies, even if they have mandates from headquarters and the resources to subscribe to custom platforms. While they tailor these taxonomies to meet specific company needs, they remain aligned with the national skills framework. Organizations can use their own unique job titles or skill sets, but they can still cross-reference against the national skills database to ensure consistency. This flexibility enables each company to retain its own taxonomy while speaking a common national language. However, reaching agreement across sectors is challenging, as each entity tends to see its needs as unique.
> SkillsFuture Singapore

Key insight 11: How to cross-walk skills taxonomies

Cross-walking skills taxonomies is essential for aligning on a common language of skills and fostering collaboration among stakeholders. For example, cross-walking taxonomies can allow to bridge the disconnect that sometimes exists between youth and adult learning, demonstrating how the skills acquired during school years continue to evolve in the workplace.

The World Economic Forum's Education 4.0 Taxonomy defines the abilities, skills and attitudes needed for a future-ready education system. Fully aligned with the Forum's Global Skills Taxonomy, it ensures a consistent framework that connects early education to workplace-relevant skills, offering a continuous development pathway from school to career. The following is an example for a group of skills:[4]

Global Skills Taxonomy Level 2	Global Skills Taxonomy Level 3	Global Skills Taxonomy Level 4	Education 4.0 Skills Taxonomy
Working with others	Empathy and active listening	Empathy	L1 Attitudes & Values / L2 Self-regulatory (Intra-personal) / L3 Empathy & Kindness
		Asking questions	L1 Abilities & Skills / L2 Social (Interpersonal) / L3 Communication
		Giving and receiving feedback	L1 Abilities & Skills / L2 Social (Interpersonal) / L3 Communication
	Service orientation	Following instructions and procedures	L1 Abilities & Skills / L2 Social (Interpersonal)
		Assisting and supporting co-workers	L1 Abilities & Skills / L2 Social (Interpersonal)
	Teaching, mentoring and coaching	Teaching	L1 Abilities & Skills / L2 Social (Interpersonal)

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Global Skills Taxonomy Level 2	Global Skills Taxonomy Level 3	Global Skills Taxonomy Level 4	Education 4.0 Skills Taxonomy
Working with others	Teaching, mentoring and coaching	Mentoring	L1 Abilities & Skills / L2 Social (Interpersonal)
		Coaching	L1 Abilities & Skills / L2 Social (Interpersonal)
	Leadership and social influence	Persuasion and negotiation	L1 Abilities & Skills / L2 Social (Interpersonal) / L3 Negotiation
		Liaising, networking and exchanging information	L1 Abilities & Skills / L2 Social (Interpersonal) / L3 Collaboration
		Building trust	L1 Abilities & Skills / L2 Social (Interpersonal) / L3 Negotiation
		Ethical leadership	L1 Attitudes & Values / L2 Societal (Extra-personal) / L3 Civic Responsibility

Key insight 11: How to cross-walk skills taxonomies

The Global Skills Taxonomy can be cross-walked with other international taxonomies, such as O*NET, enabling organizations to compare skills consistently across systems and facilitating seamless data integration. In cross-walking, it is common to encounter instances where a single skill in one taxonomy maps to multiple skills in another. This often happens because taxonomies may define skills with varying degrees of detail or breadth depending on their specific purpose. In these cases, aligning the skill with the closest matches based on their definitions, or consolidating them under broader skill categories, can help maintain relevance while accommodating differences in scope.

Global Skills Taxonomy Level 2	Global Skills Taxonomy Level 3	O*NET Skills Taxonomy
Working with others	Empathy and active listening	2.A.1.b. Active Listening
	Service orientation	2.B.1.f. Service Orientation
	Teaching, mentoring and coaching	2.B.1e. Instructing 2.A.2.c. Learning Strategies
	Leadership and social influence	2.B.1.b. Coordination 2.B.1.d. Negotiation 2.B.1.c. Persuasion

Learn more about the World Economic Forum Education 4.0 Taxonomy and the cross-walk with the Global Skills Taxonomy.

Find on our website the cross-walk between the Global Skills Taxonomy and O*NET skills taxonomy

3. Develop skills descriptions and proficiency levels, reinforcing a common language across the organization

Businesses and the education industry

Organizations should leverage the granular levels of their skills taxonomy to create detailed skill descriptions and proficiency levels, according to need, establishing a standardized approach that reinforces a shared skills language across the organization.

For businesses, this means breaking down roles into specific skills and competencies, assigning proficiency levels to each skill to guide employee development, and setting clear expectations for skill growth. This approach helps employees identify gaps and follow structured learning and career progression paths. In the education sector, it involves aligning courses with skill levels and assessing acquired skills, ensuring targeted upskilling and professional advancement.

Assigning proficiency levels to each skill – such as beginner, intermediate or advanced – can be particularly valuable when defining career paths and identifying development opportunities, providing employees a clear understanding of where they stand and what skills they need to progress. This structured approach guides employee development, supports performance reviews and allows managers to set clear, measurable expectations for skill growth.

Governments

Leveraging the granular levels of the skills taxonomy to break down industries and occupations into critical core skills and proficiency levels enables governments to create a structured framework for workforce development, outlining the essential skills and proficiency levels required for each sector. Developing skill descriptions helps standardize expectations for employers and jobseekers, support interoperability across different taxonomies, and promote greater transparency in the labour market. These descriptions can be delivered through Rich Skills Descriptors (RSDs) – metadata packages that are both human- and machine-readable – enabling smooth integration across systems.

Governments can further use this granular mapping to identify and recommend accredited learning providers that align with industry standards, ensuring that training programmes meet current labour-market demands. By targeting upskilling and reskilling efforts, governments can improve workforce readiness and support economic resilience.

See:

- **Key insight 4** for an example of how to use the Global Skills Taxonomy to develop proficiency levels.
- **Key insight 5** to learn how to embed skills and proficiency levels in job descriptions.

Find out:

- How **HSBC** leverages its skills taxonomy to assess skill needs and proficiency levels across diverse business units.
- How the **Sultanate of Oman** and **government of Singapore** leverage skills taxonomies to connect enhance workforce readiness through learning.

4. Set up the data systems to support and maintain the taxonomy

Businesses and the education industry

It is important to develop and implement the data systems necessary to support and maintain the skills taxonomy, ensuring seamless integration with existing HR systems and the organization's LMS. A well-integrated data system is essential to accurately track, update and analyse skills information, providing real-time insights that inform hiring, development and workforce planning decisions. Figure 4 describes various data channels.

Ensure that these platforms are user-friendly, easy to navigate, regularly updated, and support reporting capabilities.

Learn more about how **SAP** has built a robust data and technology framework to keep the skills taxonomy relevant and up to date.

Governments

Develop and implement the data management systems needed to support and maintain the skills taxonomy. Figure 4 outlines various data management tools governments might consider.

It is important to ensure these platforms adhere to national standards and regulations and are user friendly, regularly updated with robust reporting capabilities, and easy to share. The following channels could be considered for data dissemination:

- **Downloadable datasets**: Available in multiple formats (e.g. CSV, Excel) for flexible use by stakeholders.
- **Open data portals**: Featuring interactive dashboards for real-time analysis and visualization of skills data, making insights more accessible to policy-makers, businesses and the public.

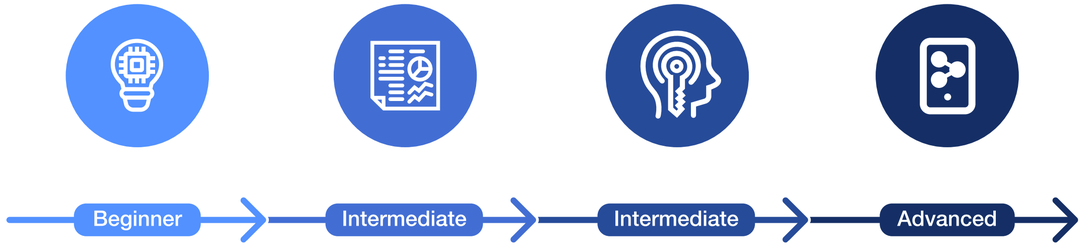
See **Key insight 12** to learn more about key characteristics of robust data systems.

> **Skills taxonomies can be transformative if they're used to connect individuals to opportunities to assess their skills, build new capabilities, and apply them toward career advancement or role changes as new technologies create new workplace demands. APIs are crucial for that interoperability, allowing our more advanced customers to map skills to roles, link skill scores to job performance data, and set up curated learning programmes to achieve their workforce goals.**
> Coursera

FIGURE 4

Examples of data management systems

Businesses and the education industry | **Governments**



Basic data infrastructure	Data management systems	AI and machine learning tools	API connectivity
Simple spreadsheets or datasets can be established to organize and track organizations' skills data.	Bespoke or vendor-integrated platforms can capture and manage skills data in real time.	Skills-matching algorithms can be used to automate skills extraction and classification, enabling dynamic updates of the skills taxonomy.	Application Programming Interfaces (APIs) can facilitate the integration with talent acquisition platforms, performance management systems, workforce planning tools, and training platforms.

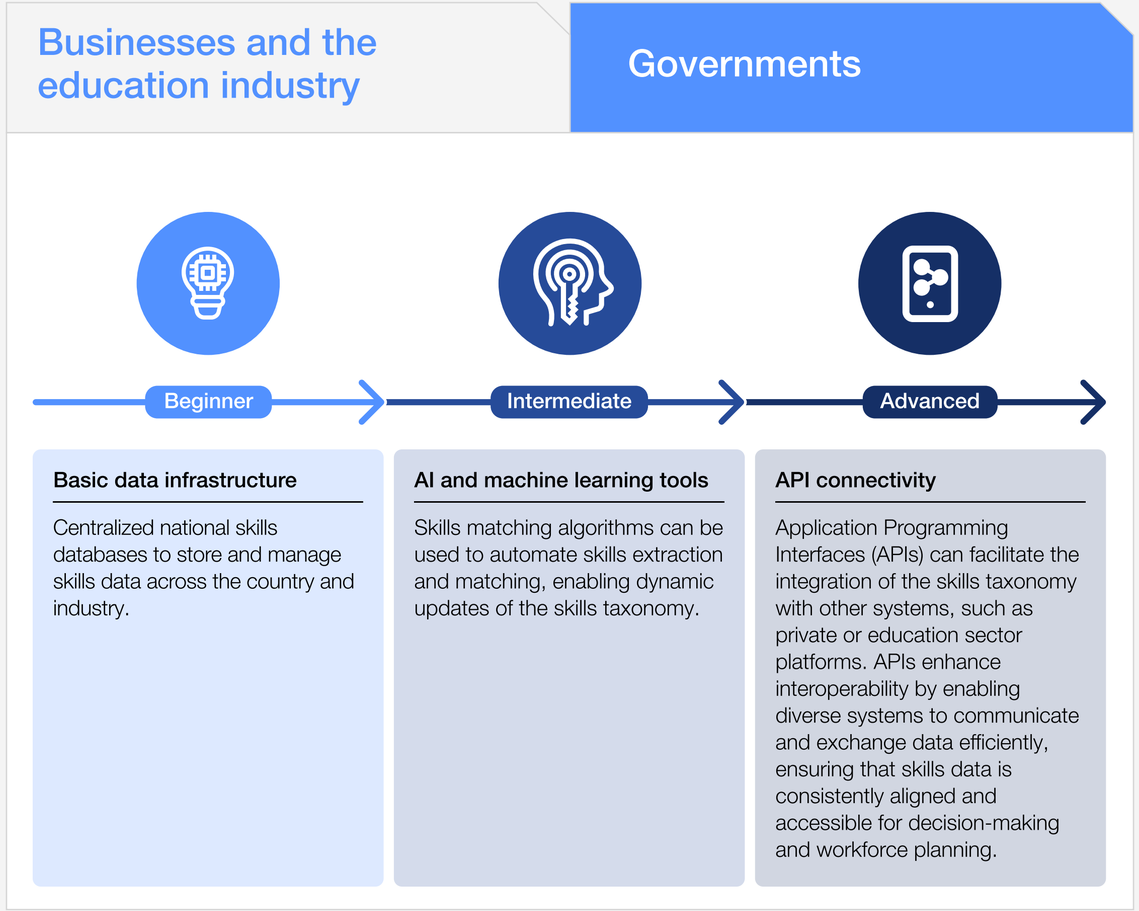
Key insight 12: Key characteristics of robust data systems

Key characteristics of robust data systems are:

- **Interoperability:** Data can be seamlessly and consistently integrated across various platforms.
- **Adaptability:** System can be easily updated to incorporate new data sources.
- **Accuracy:** Rigorous data validation processes are in place to minimize errors and inconsistencies.
- **User-friendliness:** System is designed to be accessible to all users, regardless of their technical expertise or resources.
- **Security and privacy:** Strong security measures protect sensitive data, and the system adheres to national and international data privacy laws and regulations.

FIGURE 4

Examples of data management systems



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5

Phase 3: Set up governance mechanisms for long-term sustainability

1. Establish governance framework and mechanisms

Businesses and the education industry

Governance of the skills taxonomy involves establishing clear ownership and accountability, ensuring consistency and seamless interoperability between different technology systems and maintaining a fit-for-purpose approach (Figure 5).

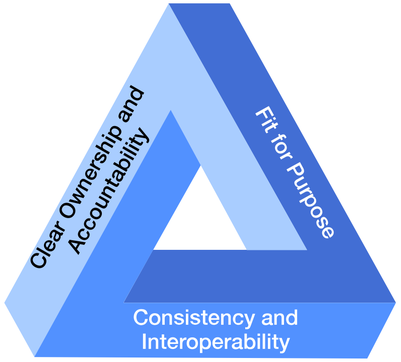
Learn more about how **EY** ensures the relevance and interoperability of its skills taxonomy.

> We maintain a comprehensive historical log of changes, which is crucial for evaluating every incoming request. It's essential that we avoid adding unnecessary elements or imprecise definitions that will require revisions later. Our goal is to ensure that any new addition to the taxonomy is thoughtfully considered and represents the right direction for our framework.
> IBM

FIGURE 5

Key governance principles of a skill taxonomy

Businesses and the education industry | **Governments**



Clear ownership and accountability

Define clear roles and responsibilities for the taxonomy's management and updating, involving key stakeholders such as CEOs, HR functions, people managers and CLOs. Ensure that adequate resources are allocated for long-term sustainability.

Consistency and interoperability

Ensure coherence and standardization in defining, categorizing, and utilizing skills across the organization by establishing consistent procedures and internal policies for the skills taxonomy in recruitment, training, and mobility practices. Ensuring the seamless integration with technology systems, such as HRIS, LMS, and project management tools, will keep the taxonomy relevant and effective in supporting talent management goals.

Fit for purpose

Regularly review and update the taxonomy to align with emerging skills, organizational needs and industry standards, keeping it practical, scalable, and usable for diverse applications—from career development to strategic workforce planning.

1. Establish governance framework and mechanisms

Governments

Governance of the skills taxonomy requires establishing clear ownership and accountability, ensuring consistency and interoperability across technology systems, and maintaining a fit-for-purpose approach (Figure 5). Countries like Singapore, Australia and Georgia have set up National Skills Agencies or National Skills Commissions to manage their skills frameworks; develop and maintain national skills datasets; conduct consultations with industry, academia and professional associations; and coordinate the delivery of skills-based initiatives and incentives. In other countries, such as Oman, existing government bodies – such as ministries of education or employment – assume these responsibilities.

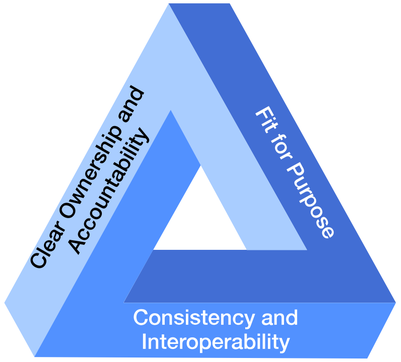
> **From the government's perspective, key governance principles include interoperability, accountability, and maintaining a taxonomy that is open, transparent and easy to understand.**
> Jobs and Skills Australia

FIGURE 5

Key governance principles of a skill taxonomy

Businesses and the education industry

Governments



Clear ownership and accountability

Define clear roles and responsibilities for the taxonomy's management and updating, involving key stakeholders such government bodies, private sector, labour unions, civil society organizations, and educational institutions. The designated government body should be equipped with a clear mandate, sufficient resources, and the authority to coordinate across sectors.

Consistency and interoperability

Ensure coherence and standardization in defining and categorizing skills across national frameworks to maintain consistency. To support this effort, national education, labour, and economic policies must be updated to align with broader strategic goals. Aligning national education, labour, and economic policies with strategic goals ensures that the skills taxonomy guides curriculum development, workforce planning, and employment services. To maximize utility, ensure the taxonomy integrates seamlessly with technology systems and is accessible through downloadable datasets and tools.

Fit for purpose

Regularly review and update the taxonomy to align with emerging skills, economic needs, and industry standards, ensuring it remains practical, scalable, and relevant for diverse applications —from career development to informing employment services effectively.

2. Orchestrate partnerships between businesses, the education industry and governments

Businesses and the education industry

Businesses, governments and education providers, such as TVET (Technical and Vocational Education and Training) and higher education institutions, can establish partnerships to align curricula with industry needs, ensuring incoming talent is equipped with the specific skills needed to be successful in the labour market. By working together, governments, employers and educational institutions can better prepare students for in-demand roles.

Governments

Forging strategic partnerships between government, businesses and education providers, such as TVET (Technical and Vocational Education and Training) and higher-education providers, can help align curricula with evolving industry demands. By involving businesses, the public sector can ensure that education and training programmes equip incoming talent with the specific skills needed to succeed in the labour market. This collaborative approach helps bridge skills gaps, enhances employability and creates a more agile, competitive workforce aligned with both current and future economic needs.

Learn more about how the **Sultanate of Oman** is partnering with education industry to promote lifelong learning.

> **We have integrated the Oman National Framework for Future Skills into our platform, Khuta, connecting essential future skills to carefully curated professional development courses. Through partnerships with the education sector, we provide free access to these courses for students and job seekers, fostering their skill development in alignment with national goals.**
> National Employment Program, Sultanate of Oman

Contributors

Project team

Neil Allison
Head of Mission, Education, Skills & Learning,
Centre for the New Economy and Society

Ximena Játiva
Insights Lead, Education, Skills & Learning,
Centre for the New Economy and Society

Aarushi Singhania
Mission Specialist, Education, Skills & Learning,
Centre for the New Economy and Society

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Badar Al Kharusi
Capacity Building Advisor for the National Employment Programme, Sultanate of Oman

Omar Bawa
Co-CEO, Goodwall

Peter Brown
Global Workforce Leader, Partner, PwC UK

Simon Brown
Global Learning and Development Leader, EY

Maurice Collins
Vice-President, Leadership and Organization Development, Agility

Nick Crussell
Global Head of Learning and Talent Management Practice, HSBC

Shannon Custard
Manager, Global Competence Development, Ingka Group (IKEA)

Dominique Hermans
Group Strategy and Chief Executive Officer, Northern Europe, Randstad

Soon Joo Gog
Chief Skills Officer, SkillsFuture Singapore

Kelli Jordan
Vice President, IMBer Growth and Development, IBM

Eric Karsten
Data Scientist, Coursera

Tamar Kitiashvili
Director General, 4L- Life-Long Learning Laboratory Georgia

Jan Meyer
Senior Vice-President, Chief Learning Officer, SAP

Casey Medlock Paul
Senior Learning Scientist, ETS

Mark Onisk
Chief Content Officer, Skillsoft

Sandya Baratha Raj
Director of Data Science and AI – Workforce Skills, Pearson

Jodi Schmidt
Chief Executive Officer, Human Services Skills Organisation (HSSO) Australia

Amanda Thomas
General Manager - Strategy, Policy & Research, Human Services Skills Organisation (HSSO) Australia

Luciana Vaccaro
President, Swissuniversities, Switzerland

Amelie Villeneuve-Moore
Global Head, Learning, Standard Chartered Bank

Ellie Yates
Director, National Skills Taxonomies, Jobs and Skills Australia

Yalin Zhao
Skills-based Workforce Transformation, Senior Manager, PwC UK

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World Economic Forum
91–93 route de la Capite
CH-1223 Cologny/Geneva
Switzerland

Tel.: +41 (0) 22 869 1212
Fax: +41 (0) 22 786 2744
contact@weforum.org
www.weforum.org