Towards System-Level Reform through National Skills Strategies

Lessons from the Kingdom of Saudi Arabia

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Ministry of Human Resources and Social Development
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Table of Abbreviations

ALMP Active Labor Market Programs

AQRF ASEAN Qualification Reference Framework

ASEAN Association of Southeast Asian Nations

EC European Commission

EMIS Education Management Information Systems

ESCO European Skills, Competences, Qualifications and Occupations

ETEC Education and Training Evaluation Commission

EU European Union

FEC Future Economy Council

GASTAT General Authority for Statistics

GDP Gross Domestic Product

HCDP Human Capability Development Program

HRDF Human Resources Development Fund

ILO International Labor Organization

IMF International Monetary Fund

JSA Jobs and Skills Australia

KSA Kingdom of Saudi Arabia

LMIS Labor Market Information Systems

LMS Labor Market Strategy

MHRSD Ministry of Human Resources and Social Development

MSDE Minister of Skills Development and Entrepreneurship

NLO National Labor Observatory

NOSS National Occupational Skills Standards

NQF National Qualification Framework

NSA National Skills Authority

NTP National Transformation Program

OECD Organization for Economic Cooperation and Development

PISA Program for International Student Assessment

PLIDA Person Level Integrated Data Asset

PPP Public-Private Partnerships

RPL Recognition of Prior Learning

SABER Systems Approach for Better Education Results

SETA Sector Education and Training Authorities

SMP Skills Mobility Partnerships

SPSP Saudi Petroleum Services Polytechnic

SSC Sector Skills Councils

TIMSS Trends in International Mathematics and Science Study

TVET Technical and Vocational Education and Training

TVTC Technical and Vocational Training Corporation

UNESCO United Nations Educational, Scientific and Cultural Organization

VET Vocational Education and Training

WEF World Economic Forum

WIL Work-Integrated Learning

iStock.com / Johnny Greig

Executive Summary

Shifting workforce demands require intentional efforts from governments to develop skills systems. Skills development is recognized as a critical driver of economic growth and inclusive participation, which has resulted in an array of global responses, with some more effective than others. The dynamic nature of skills needs and the complexity of skills gaps make it difficult for often-used stopgap interventions to contribute effectively to the development of a skilled workforce. As such, global skill development efforts have been moving towards establishing coordinated systems to meet rapidly changing skill needs.

At the national level, skills strategies have been relatively successful in attempting to coordinate skills development efforts. The global G20 intergovernmental forum's emphasis on skills strategies has influenced national governments to take action. Further, international organizations, such as the World Bank, Organization for Economic Cooperation and Development (OECD), the International Labor Organization (ILO), Cedefop, and UNESCO-UNEVOC, have supported national skills strategy development directly or indirectly through active guidance, collaborations, and publications. The learnings of skills strategy development efforts have culminated in a renewed focus on strengthening the governance systems of skills ecosystems. This paper builds on the work that has been done to illustrate that there is room for a systems approach to skills strategies that focuses on developing the foundational systems or structures necessary to support a holistic and coordinated skills development system.

A systems approach to skills strategies that focuses on developing the foundational structures necessary to support a holistic and coordinated skills development system has been relatively successful.

A systems approach considers the complex interrelationships within the skills ecosystem rather than its isolated components. Systems thinking is critical for developing effective, sustainable skills strategies. Skills development efforts often rest solely on the Technical and Vocational Education and Training (TVET) system's shoulders, where, in reality, skills development operates within a complex web involving education systems, labor markets, policy frameworks, industry needs, and societal expectations. A systems-thinking approach allows for a comprehensive understanding of these intricate relationships, ensuring that interventions or strategies address the ecosystem as a whole rather than isolated parts.

A systemic perspective enables a more proactive and forward-thinking strategy. It moves beyond reactive measures by recognizing skill development initiatives' long-term implications and consequences. By considering the ripple effects across various sectors and stakeholders, it facilitates the creation of adaptable and future-proof skills ecosystems. This is particularly important in an era of rapid technological advancements and evolving job landscapes where new skills are frequently required. Systems thinking in skills

development further encourages partnerships between educational institutions, industry players, policymakers, and communities. By understanding the interconnected nature of various components within the skills ecosystem, it becomes possible to identify leverage points where interventions can have maximum impact. This strategic allocation of resources minimizes waste and maximizes the effectiveness of initiatives, leading to a more efficient and sustainable skills development framework.

The World Bank has been working closely with the Ministry of Human Resources and Social Development (MHRSD) in the Kingdom of Saudi Arabia (KSA) to develop a system-level skills strategy. The MHRSD first started by establishing a Skills and Training Deputyship and allocated resources to start leading the national skilling agenda through coordinated efforts with all relevant role-players. The strategy responds to the KSA's goal to diversify its economy and empower its people with the necessary skills to become global citizens. It further responds to the need to coordinate existing skills development efforts. The system approach to skills strategies includes a strong focus on governance, creating sectoral representative bodies, such as Sector Skills Councils (SSCs) to facilitate a demand-led skills approach to skills development, establishing efficient labor market information and quality assurance systems, and cultivating a responsive education and training system. Each of these focus areas makes up the core of a systems-based approach to skills development. The key principles of a system-level skills development framework are summarized here and expanded on later in the text.

The system approach to skills strategy in the KSA were based on five main principles: 1) governance, 2) demand-led skills approach; 3) accurate information; 4) quality assurance; and 5) partnerships.

Principle 1: Skills systems cannot succeed without an enabling environment and good governance. Regardless of its structure and strategic positioning, entities responsible for the governance of skills systems have clear functions to perform, including policy development, securing sustainable funding, facilitating relationships between stakeholders, coordinating existing and future skills development efforts, and overseeing the implementation, monitoring, and evaluation of policies, among others. The success of the governance entity in performing these tasks relies heavily on political will, national strategic alignment, and an enabling economic environment.

Principle 2: Skills systems need to be demand-led. A demand-led skills development system fosters a dynamic and adaptable workforce, enabling individuals to navigate the evolving demands of the job market. Prioritizing skills that are in high demand empowers individuals to secure stable employment and contribute to their communities. Additionally, demand-led systems encourage collaboration between education and training providers, employers, and industry experts, fostering a shared understanding of the skills required for success in the modern workplace. This requires education and training providers to be adaptable and responsive to the needs of the labor market. Recent years have seen significant efforts to transform TVET systems. Historically perceived as rigid and disconnected from industry needs, modern TVET systems now emphasize close collaboration with employers, industry experts, and local communities. This evolution has been marked by a shift towards competency-based curricula and in-

tegrating practical skills with theoretical knowledge. Key to facilitating a demand-led skills system is sectoral bodies, which can perform a range of functions that bridge the gap between the needs of the job market and what education and training providers supply.

Principle 3: Supply-demand decisions need to be based on accurate and timely information. Labor Market Information Systems (LMIS) are essential for guiding skills development by providing accurate and up-to-date information on labor market trends and needs. They enable policymakers, education and training providers, and individuals to make informed decisions about education and training programs, ensuring alignment with the current and future needs of the labor market. By leveraging real-time information on job vacancies, salary trends, and skill shortages, these systems facilitate the design of targeted and relevant training initiatives, minimizing mismatches between skills supply and demand.

While the underlying systems or structures that drive skills development will differ slightly between countries, the principles for a coordinated skills system stated here are universal.

Principle 4: Improving quality assurance in skills development systems optimizes the credibility, relevance, and transferability of skills. Quality assurance is crucial in skills development systems to ensure that training programs produce work-ready graduates with competencies that meet industry standards. Robust quality assurance in education and training provisioning includes having credible providers, accredited courses and curricula, appropriate instructor qualifications, and well-designed competency assessments. Beyond education and training provision, quality assurance in skills systems also includes skill verification, authentication, and setting skills standards.

Principle 5: Partnerships between education and training providers and the private sector can rapidly advance skills development. The value of Public-Private Partnerships (PPPs) and Work-Integrated Learning (WIL) opportunities cannot be underestimated. WIL bridges the gap between academic learning and practical application by immersing learners in real work environments. Through internships, apprenticeships, and cooperative education programs, individuals gain invaluable hands-on experience, honing not just technical skills but also crucial soft skills demanded by employers. Simultaneously, PPPs leverage the expertise and resources of both public and private sectors to design, implement, and sustain effective skills development initiatives. Collaborations between educational institutions and industries ensure that curricula remain aligned with industry needs, fostering a more responsive and adaptable workforce. These partnerships offer a mutual exchange of knowledge, enabling the co-creation of training programs that are dynamic, relevant, and directly applicable to the rapidly changing demands of the job market. Ultimately, the synergy between WIL and PPPs not only enhances employability but also drives innovation, fosters economic growth, and strengthens the overall resilience of skills development systems.

Based on these principles and informed by the collaborative work between the World Bank and MHRSD to develop a skills strategy for the KSA, the paper proposes a systems-level framework for skills development that can be applied in any context. While the underlying systems or structures that drive skills development will differ slightly between coun-

tries, the principles for a coordinated skills system stated here are universal. Getting the foundational support systems right will enable existing and future skills development efforts across the education and training spectrum. If the foundational structures are in place and operating in a coordinated way, it will support and align with a range of skills development programs or initiatives aimed at basic, vocational, higher education, or lifelong learning levels. As such, this paper aims to serve as a guide to support the development or improvement of coordinated skills development systems. We hope that learning from the KSA context, this work will support international organizations, governments, and other role players to take a systems-level approach when developing skills ecosystems, and thereby work towards coordinated and effective systems that will positively impact productivity and growth.

Skills development as global priority

Skill development has a direct impact on enhancing employability, labor productivity, and economic advancement. Investment in a high-quality workforce can create a virtuous cycle, where skills enable productivity growth and foreign direct investment, resulting in more jobs for the current workforce and more investment in the education and training system.[1] In theory, this cycle seems simple, and the logic is clear. However, while many countries acknowledge the value of investing in skills development and have implemented efforts to advance components of skills systems, not many have adopted a comprehensive, systemic approach to advancing skills development.

Governments and global development entities are increasingly recognizing the need to prioritize skills development as a key strategy for economic competitiveness and growth. This is evidenced by the G20 intergovernmental forum's continued emphasis on strategically positioning skills development through its global skills strategy, and the European Union's (EU) Year of Skills, a scaled effort among EU nations to create awareness about skill development and matching initiatives that extends national borders.[2] Global megatrends continuously change the nature of work and skills demands. In recent years, the impact of certain trends, along with

1 World Bank, 2023.

2 G20 Skills Strategy Indonesia, 2022. See *5-LEMM-G20-Skills-Strategy.pdf (utoronto.ca)*; EU Year of Skills. See *European Year of Skills (europa.eu)*.

global events, such as the COVID-19 pandemic, have intensified the urgency to align education and training provision with labor market demands. Some of the key trends driving skills development include technological advances, climate change, demographic shifts, literacy deficits, and inequities in access to labor markets.

The impact of global trends such as technological advancement, demographic shifts, and climate change have intensified the urgency to prioritize skills development as key strategy for growth.

Technological advances can cause uncertainty for policy makers, employers, and workers themselves. Rapid advancements in technology make it difficult to predict in what way jobs will be affected and which skills will be needed to take advantage of the productivity and efficiency promises technology brings. The World Economic Forum (WEF) estimate that 44% of workers' skills will be disrupted in the next five years. Further, 60% of workers will require training before 2027, particularly in sought-after skills such as analytical and creative thinking.[3] Technologies such as robotics and artificial intelligence raise difficult questions about the broader impact of automation on jobs, skills, wages, and the nature of work itself.[4] While technological innovations are currently creating jobs and will create even more jobs in the future, they are likely to be in occupations other than those destroyed by technology. They will be characterized by a low share of routine tasks and a high share of tasks that require creative and social skills, mainly found in many health, education, and social occupations.[5] This prediction of the European Parliament implies that a range of digital skills should be included in all secondary and tertiary qualifications and be made available to all wishing to upskill or reskill themselves. Similarly, respondents to the WEF survey agree that focusing on closing different skills gaps and finding innovative ways of attracting and developing relevant talent are key to managing changes brought on by technological advancements.

Over 190 countries have committed to fighting climate change. The United Nations' Paris Agreement to limit global warming and reduce harmful emissions has been active since 2016. This international agreement requires countries to submit national plans on how they aim to take action and will inevitably impact skills development systems.[6] The WEF expects green transition initiatives to have strong positive impacts on job creation, particularly in the Energy, Materials, and Infrastructure sectors. Globally, the green transition could create 30 million jobs in clean energy, efficiency, and low-emissions technologies by 2030. In the next few years, the transition to a green economy in China alone is expected to add $1.9 trillion to the country's economic worth and generate 88 million new jobs.[7] To put green skills into practice, particularly to include skills pathways for young people, three best practice examples have been identified to guide policymakers. These include i) leveraging successful skilling programs to create inclusive green skilling pathways for youth and concurrently eliminate participation

3 WEF, 2023a.
4 McKinsey Global Institute, 2017.
5 European Parliament, 2018.
6 United Nations, 2016.
7 WEF, 2023a.

▲ iStock.com / Kelvn

barriers; ii) promoting access to green work opportunities by establishing clear learning-to-earning pathways from green skilling programs to green jobs, as well as post-training support; and iii) fostering access to self-employment and entrepreneurship opportunities in green sectors by addressing systemic barriers and providing ongoing support.[8]

Demographic changes, including longer life expectancy and increased social mobility, impact supply and demand needs. Across OECD-affiliated countries, the ratio of older people aged 65 and over to people of working age (15-64) is projected to reach 2 in 5 by 2050.[9] A longer-living population implies intentional investment in upskilling and reskilling opportunities for workers throughout their lives. Several countries have moved towards including policies on lifelong learning to enable seamless movement in and out of education and training opportunities for all. Several push and pull factors, including employment prospects (or a lack thereof), and ease of access to alternative work contexts contribute to over - and undersupply of skills in countries. As a significant challenge in European countries, the European Commission (EC) has been promoting Skills Mobility Partnerships (SMPs), or Global Skills Partnerships, as a viable strategy

8 Unicef, 2024.

9 Akinola, 2021.

to benefit both countries of origin and destination. SMPs vary in composition, but generally consist of formal state agreements about education and training, skill recognition, and terms of mobility or migration. Examples of SMP initiatives include vocational training in the origin country before enabling mobility, internships in destination countries, or scholarships.[10] Skills development in the context of population aging also implies that the skills that are stronger in older workers could be exploited by promoting mixed-age teams, introducing short-term contractual agreements, or providing younger workers with mentorship opportunities from older workers.

Addressing basic literacy and numeracy skills gaps should be a priority for developing countries. Analysis by the International Monetary Fund (IMF) highlights three key findings on literacy deficits. First, comparing scores on international student assessments, such as the Program for International Student Assessment (PISA), and the Trends in International Mathematics and Science Study (TIMSS) with GDP growth shows that growth and achievement are closely linked. Countries scoring high on basic numeracy and literacy also tend to have faster-growing economies. Skill differences account for three-quarters of cross-country variations in long-term economic growth. A second finding is that the global skill deficit should be a great concern, as two-thirds of the world's youth lack basic skills. Lastly, investing in basic skills development and reaching the goal of global universal basic skills would raise future world GDP by $700 trillion over the remainder of the century.[11]

Labor markets face significant challenges that undermine social justice efforts. The ILO's reflection on employment and social outlook trends paints a bleak picture of the overwhelming challenges labor markets are facing. Figure 1 illustrates some of these global challenges, including significant job gaps, persistent gender inequities in employment, a quarter of youth not engaging in education, training, or employment, large numbers of people in informal employment that exclude them from social benefits, large numbers of people not earning enough to escape poverty, and big productivity gaps within high-income economies.[12]

10 EC, 2022.

11 Hanushek & Woessmann, 2022.

12 ILO, 2023.

Fig. 1 **Summary of global labor market challenges, ILO**

Note: Estimates for labor income to 2019, estimates for child labor beginning of 2020.
Source: ILOSTAT, ILO modellled estimates, November 2022; ILO social protection; ILO (2021b)

Coordinated and comprehensive skills development systems can be a viable response to the global challenges and trends affecting labor markets. Some of the global shifts in skill demands listed here, such as technological advances or climate change, require new knowledge and skills to advance innovations in these areas. Other global shifts, such as demographic shifts, literacy deficits, and inequities in accessing the labor market, require new ways of thinking about upskilling, introducing ALMPs, and improving the quality of existing education and training. Evidence from different contexts show that a combination of good quality education and training that is relevant to shows the labor market empowers people to develop their full capacities, raises productivity of workers and enterprises, contributes to advancing innovation and development, encourages domestic and foreign investment, lowers unemployment and underemployment, leads to higher wages, and reduces social inequalities when broadly

accessible.[13] The diversity of challenges and trends makes it important to coordinate efforts and to keep from resorting to invest heavily in solutions to a single challenge with limited impact on others. Having a coordinated skills system also implies that all stakeholders that contribute to or benefit from skills are considered when planning a skills development system. These stakeholders range from the general public to education and training providers, job seekers, employers and employees, industry specialists, quality authorities, labor market information entities, and others. Typically, a national approach, such as a skills strategy, will serve as a point of departure to guide the coordination of skills development efforts.

Global trends require coordinated and comprehensive skills development systems that invest in solutions addressing all challenges and allow all stakeholders that contribute or benefit from skills to be considered.

Since 2019, the World Bank has been actively working with the MHRSD in the KSA to develop a national skills strategy that will support the country's desire to diversify its economic prospects and integrate existing skill development efforts into a comprehensive and coordinated system. The process followed to develop a skills strategy for the KSA could provide valuable insights into other contexts that aim to develop comprehensive and coordinated skills systems. This paper will provide an overview of how countries are approaching skills development systems, with a particular focus on how skills strategies guide skills development. It will use the collaborative efforts between the World Bank and the KSA as an example of how a system-level framework for developing a skills strategy could be implemented beyond ministerial or sectoral boundaries to support holistic change in skills development. Lastly, the paper provides tangible action steps towards developing and implementing such comprehensive skills strategies in other contexts.

13 ILO, 2011.

2

Current approaches to skills development

Skills development systems are intentional efforts to coordinate skills development within a country, a region, or an industry. Such systems focus on creating opportunities for skills development that align with national, sectoral, or regional development goals. This is done mainly by i) identifying key role players in the skills supply and demand chain and coordinating the functions of these entities. This includes education and training providers on the supply side, public and private sector organizations on the demand side, and entities such as sectoral bodies, quality assurance agencies, and labor market information producers acting as facilitators between supply and demand; ii) facilitating relationships between the public and private sectors to strengthen collaboration; iii) enabling information flow to align skill supply and demand; iv) ensuring that the quality and relevance of skills are recognized by appropriate national or international entities; and v) providing dedicated funding to support skills development initiatives and foundational structures.

Skills systems focus creating opportunities for skills development that align with national, sectoral, or regional development goals.

Globally, skill development systems generally focus on four different levels of skills development – the supra-national level, macro/national level, industry level, and individual level. Supra-national collaborations can play a significant role in driving policy agendas within and between countries. Two examples of such entities are the EU and the Association of Southeast Asian Nations (ASEAN). On behalf of the EU, the EC has drafted an extensive five-year Skills Agenda to help individuals and businesses develop skills. It focuses specifically on strengthening sustainable competitiveness,

ensuring social fairness by widening access to education, training, and lifelong learning for anybody in the EU, and building resilience in response to crises.[14] In 2022, the EC launched the European Year of Skills[15] initiative, which draws on several skills development initiatives across Europe to push the agenda for skills development. In Asia, the ASEAN network has been working with the ILO to create a system that supports the free flow of skilled labor. Through Mutual Recognition Arrangements (MRAs), the aim is to standardize and align qualifications to correspond with national and regional qualification frameworks.[16] The ASEAN network further provides benchmarking and support initiatives, such as regional databases on informal employment statistics and the ASEAN Labor Productivity Index, a regional ASEAN Qualification Reference Framework (AQRF), as well as initiatives on regional skills development and recognition led by the ASEAN TVET Council.

Although there are many examples of efforts on macro or national levels, they are often siloed and not comprehensive, coordinated systems. Many countries have invested in strengthening their TVET sectors, developing policies or legislation to guide skills development, and have invested in creating more opportunities for accessing education and training. Such efforts are often guided by national or international data sources, such as the TIMSS and PIRLS,[17] or supported by international organizations, such as the ILO, which has conducted 36 country skill mapping exercises, or the OECD, which has supported at least 19 countries to work towards developing national skills strategies.

A skills-first approach focuses on whether a person has the right skills and competencies for a particular job, rather than depending on whether the person has the right qualifications or relevant job history.

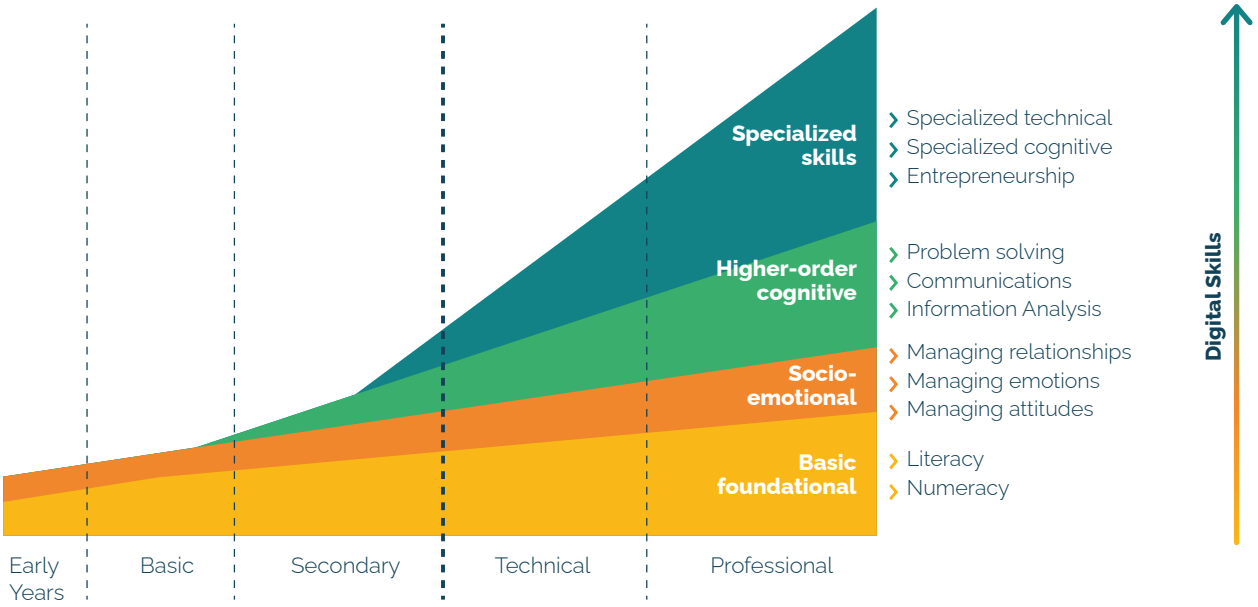
Skills development at the industry level is moving towards a 'skills-first' approach. A skills-first approach focuses on whether a person has the right skills and competencies for a particular job, rather than depending on whether the person has the right qualifications or relevant job history. It democratizes access to jobs and aligns personal and professional supply and demand of skills and competencies.[18] In the United States, a consortium of large companies, known as the Rework America Alliance[19] is actively embracing skills-based hiring practices. Many have removed degree requirements from certain job postings and have worked with other organizations to help workers progress from lower- to higher-wage jobs. Through a skills-based approach, companies can boost the number and quality of applicants who apply to open positions and can assist workers to find more opportunities to advance internally, which can help employers improve retention.[20] Currently, higher levels of educational attainment are often associated with better health and wellbeing, higher employment rates, better labor oppor-

14 EC, 2020.
15 EC press release, 2022.
16 ILO, 2019.
17 *https://timssandpirls.bc.edu/*
18 WEF, 2023b.
19 *https://www.markle.org/alliance/*
20 Hancock et al, 2022.

tunities, and higher earnings. However, the need to develop one's skills and manage transitions between jobs will increase in line with the rapidly changing labor market landscape, advances in technology, the trend towards longer working lives, and changes in traditional work formats.

On an individual level, certain skillsets are no longer optional to flourish in the 21st century labor market. The World Bank groups individual skills into basic/foundational, socio-emotional, higher-order cognitive, and specialized skills, all developed at different life stages across education and work levels. Digital skills are seen as running across all skill groups and are not limited to a certain life stage (Figure 2). Basic or foundational skills include literacy and numeracy. This is followed by socio-emotional skills, which include the ability to navigate interpersonal and social situations effectively, leadership, teamwork, self-control, and grit. Third are higher-order cognitive skills, referring to problem-solving, communication skills, and information analysis, including the ability to use materials, tools, or technologies to perform tasks. Last, are specialized skills, including specialized technical, or cognitive skills, as well as entrepreneurship skills.[21] The WEF estimates that 60 percent of workers will require training before 2027, but that only half of workers have access to adequate training opportunities today, and lists analytical thinking, the utilization of Artificial Intelligence and big data, leadership and social influence, resilience, flexibility, agility, and curiosity and lifelong learning as essential skills.[22]

Fig. 2 **21st century skills**[23]



21 World Bank, 2024.

22 WEF, 2023a.

23 World Bank, 2024.

The levels and types of skills add another layer of complexity when designing skills development systems. These systems should be responsive to the megatrends and labor market challenges listed earlier, while being cognizant of stakeholders' needs. The following section looks at how skills strategies have attempted to respond to these diverse needs.

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1. Preparing skills strategies to guide skills development

A skills strategy attempts to coordinate skills development efforts into a unified skills development system. Both the OECD and G20 intergovernmental forum have produced supranational skills strategies to guide the development of national strategies. Table 1 below shows how the focus on skills development has evolved in OECD and G20 countries over the past decade. In essence, while both cases took a holistic approach to skills development in the first iterations of the strategies in 2013 and 2010, respectively, the second renditions show that skills development systems require a stronger emphasis on governance functions. Further, these approaches confirm that a focus on TVET systems or training programs provides only part of the solution when working to address skill shortages and skill mismatches. Education and training programs on their own do not develop skills or improve employment in key sectors. Taking a comprehensive national or sectoral approach to skills development is more likely to produce positive outcomes.

Table 1 **OECD and G20 evolution of skills strategy focus**

OECD Skills Strategy	**2013** **Started work on skills development**	**2019** **OECD Skills Strategy revised**
	• OECD Skills Strategy approach launched. • Implemented through tailored national skills strategy projects. • Worked with inter-ministerial teams in each country. • Took on a whole-of-government approach. • Aimed to understand the country's goals for the future, identify the priority areas for action, and design skills policies to improve skills performance.	• Revised Skills Strategy incorporating lessons learned from applying the OECD Skills Strategy framework in 11 countries. • Includes evidence about megatrends, such as globalization, digitalization, population aging, and migration. • Includes evidence about skills policies that work under the proper governance arrangements, including effective coordination and accountability mechanisms. • Also shows the impact of efficient funding from different sources and information systems.
G20 Skills Strategy	**2010** **Common framework for skills development**	**2022** **Policy Principles (15)**
	• A focus on skill alignment and competency development. • A holistic approach to skills development. • A lifecycle perspective . • Convergence across policies.	• Developing and renewing skills for resilient labor markets and societies (including improving access to different levels of education and aligning supply and demand). • Using skills effectively to make the most of skills investments (including Active Labor Market Programs [ALMPs] and anticipation systems). • Strengthening governance for future-ready skills systems (including a cross-sectional approach and better M&E).

The OECD has developed a framework to guide national-level skills strategy development, focusing on three key elements: lifelong skills development opportunities, effective use of skills in work and society, and strengthening skills governance systems. Table 2 shows the key policy priorities in each focus area of the skills strategy framework. Developing relevant skills over the life course includes elements of culture change, accessibility to education and training, and leveraging the value proposition of education and training across people's lifespans. Using skills effectively in work and society includes a focus on leveraging partnerships and incentives to engage people in skilling initiatives. It further has elements of identifying key sectors to advance, thereby stimulating demand for high-level skills. In

strengthening the governance of skills systems, policy priorities include ensuring cooperation and integration of skills efforts across the system, facilitating relationships, securing sustainable funding, and building integrated information systems to inform skills development efforts.

Table 2 OECD skills strategy framework and key policy directives

Developing relevant skills over the life course	**Using skills effectively** in work and society	**Strengthening the governance** of skills systems
1. Raising aspirations for lifelong learning. 2. Providing a good start for lifelong learning. 3. Making lifelong learning affordable and sustainable. 4. Making lifelong learning visible and rewarding. 5. Making lifelong learning accessible and relevant.	1. Promoting labor market participation. 2. Promoting social participation. 3. Expanding the pool of available talent. 4. Making intensive use of skills in the workplace. 5. Reducing skills imbalances. 6. Stimulating demand for high-level skills.	1. Promoting co-ordination, cooperation, and collaboration across the whole of government. 2. Engaging stakeholders throughout the policy cycle. 3. Building integrated information systems. 4. Aligning and coordinating financing arrangements.

Approaches to skills strategy development might differ based on contextual differences; however, frameworks such as the OECD's help countries to guide prioritization of skill development areas. That said, not all efforts to compile or implement skills strategies are successful. Box 1 illustrates two case examples of countries that have been struggling with implementing skills reform, together with the lessons they are learning. While the key policy directives listed in the OECD framework are relevant to all contexts to advance skills development, the framework does not elaborate on what systems/structures would be necessary to act on the policy directives. As such, the following section uses the work that has been done in the KSA by the World Bank in collaboration with the MHRSD and several other stakeholders to propose a skills strategy framework that focuses on strengthening the underlying systems that support skills development ecosystems and materialize policy directives.

BOX 1

What if skills strategies fail to deliver economic reform?

The UK has made significant improvements in the labor market in recent years, such as increased participation for targeted groups and job security brought on by deliberate policy changes in recent years. However, relative to similar economies, the UK has not performed as well as expected. This is despite several efforts to position the UK as a high-growth, high-wage economy by introducing policies and strategies aimed at skill reform. In fact, evidence suggests that several government skills reform efforts in recent years have had little to no direct or positive impact on economic productivity levels. An in-depth analysis of contributing factors over time, and engaging with key labor market stakeholders on the future of skills development led to the following lessons:

- Skills policy is about more than one government department. To tackle deep-seated skills and productivity challenges requires a collaborative approach.
- Establish a national commission and a UK-wide skills strategy as an overarching approach. Skills development strategies have been fragmented and uncoordinated to date. There is need for an integrated approach to skills development.
- Change the way things have always been done. Replacing the traditional top-down approach to developing and implementing policies and initiatives aimed at skills development with a more inclusive, bottom-up approach might secure more buy-in from stakeholders and focus on the challenges that are prevalent on the ground.
- Invest in creating scaled opportunities for people to access jobs as opposed to only focusing on developing key economic sectors.
- Explicitly link investments to productivity outcomes.
- Hold the ecosystem to account via enhanced consumer accountability measures.
- The UK is, however, rapidly making progress to address skills reform with recent efforts such as legislation to advance a demand-driven skills development system, as well as aligning policies into a more unified approach to skills development.
- Similarly, South Africa has a well-developed skills development system with a dedicated national skills commission, Sector Education and Training Authorities (SETAs) that act as mediators to facilitate a demand-driven approach to capacitate economic sectors, and an established policy and funding environment to support the skills development system. Yet, challenges with economic inequality and poverty, poor quality of education, a lack of coordination between structures, and a lack of policy implementation are some of the reasons why the skills development system has not produced its intended impact. A review of the skills system recommended the following changes in approach:
  - Improving the quality of public education at school and TVET level – including better management, teaching and learning practices, and relationships with the private sector.
  - Use funding more strategically as incentive for good performance.
  - Encouraging private sector training provision and investments, and particularly encouraging international providers.
  - Facilitate better trust relationships between government and the private sector.

The two examples shared here illustrate the complexity of skills systems and confirm the importance of coordination, quality, private sector involvement, and accountability in the success of skills development systems.

Sources: Bewick & Gosling, 2023; Centre for Development and Enterprise, 2018.

iStock.com / SweetMango

3

Towards a coordinated skills development system for Saudi Arabia

1. Why a skills strategy is necessary for the KSA

The KSA's Vision2030 shows its commitment to creating new growth opportunities to steer the country towards a productive and broadened economy. Skilled human capital is key to taking this vision forward. Driven by the Human Capability Development Program (HCDP), the KSA has developed several strategies spanning across education sectors to develop human capital. In addition, the country has well-established and complementary systems and entities that currently include skills development in different forms. Some of these entities include the Technical and Vocational Training Corporation (TVTC), the Human Resources Development Fund (HRDF) that partially drives upskilling and reskilling initiatives through ALMPs and PPPs, the National Labor Observatory (NLO) tasked with coordinating a national LMIS, the General Authority for Statistics (GASTAT),

and the Education and Training Evaluation Commission (ETEC) that oversees the quality of education and training in the KSA. Within the MHRSD, several regulations and incentives for skills development have been implemented and human capital strategies have been included in strategies across ministries.

Despite many successes in skills development initiatives, there is a lack of coordination within and between the public and private sectors. The lack of an overarching strategy that synthesizes efforts towards collective goals, as well as a lack of monitoring and evaluation of programs have resulted in a fragmented approach to addressing vital skills development needs. A national skills strategy builds on existing efforts to enhance skills development and aligns with current policies and efforts to create a more systematic approach to skills development. In doing so, the skills strategy aims to develop the underlying, foundational structures required for a sustainable skills development system that would support and enable interventions, such as the HCDP and other skills development programs and initiatives. Such foundational structures will further ensure a coordinated and organized approach to national skills development that will fast-track the national aim of diversifying its citizens' capabilities.

Taking these factors into consideration, the skills strategy was developed based on a clear goal and objectives. The overall goal of the national skills strategy is "*for KSA to have a demand-driven skills development system that produces the skills needed to drive a globally competitive Saudi economy, creating sustainable livelihoods for all people living in the Kingdom, driven by evidence-based planning and underpinned by strong, integrated governance, policy, and quality assurance mechanisms that incorporate all key stakeholders.*" In working towards this overall goal, the following key objectives underpin the Strategy:

- Skills development institutions, programs, and short courses are of high quality, delivered in flexible modes that meet the diverse needs of potential students, and kept relevant to the changing demands of the labor market, while supporting economic and employment growth.
- Strengthened public and private sector participation in skills development – from needs assessment and curriculum design to program/course delivery – leads to significant improvements in absorption of skilled graduates into the workforce, retention of those graduates in employment, and a strong, sustained culture of lifelong learning in the workplace for all levels and types of employees.
- The skills development policy environment, governance, and quality assurance structures, LMIS, and monitoring and evaluation processes are strengthened and reformed to enable active skills capacitation and ongoing alignment between labor market supply and demand in support of sustainable economic growth.

"for KSA to have a demand-driven skills development system that produces the skills needed to drive a globally competitive Saudi economy, creating sustainable livelihoods for all people living in the Kingdom, driven by evidence-based planning and underpinned by strong, integrated governance, policy, and quality assurance mechanisms that incorporate all key stakeholders."

Six core initiatives were identified to respond to the overarching goal and objectives. These include i) A good governance structure that will ensure the focus and sustainability of the skills development system, and will include functions of coordination, policy development, and securing funding and buy-in from stakeholders; ii) A coordinated quality assurance system,

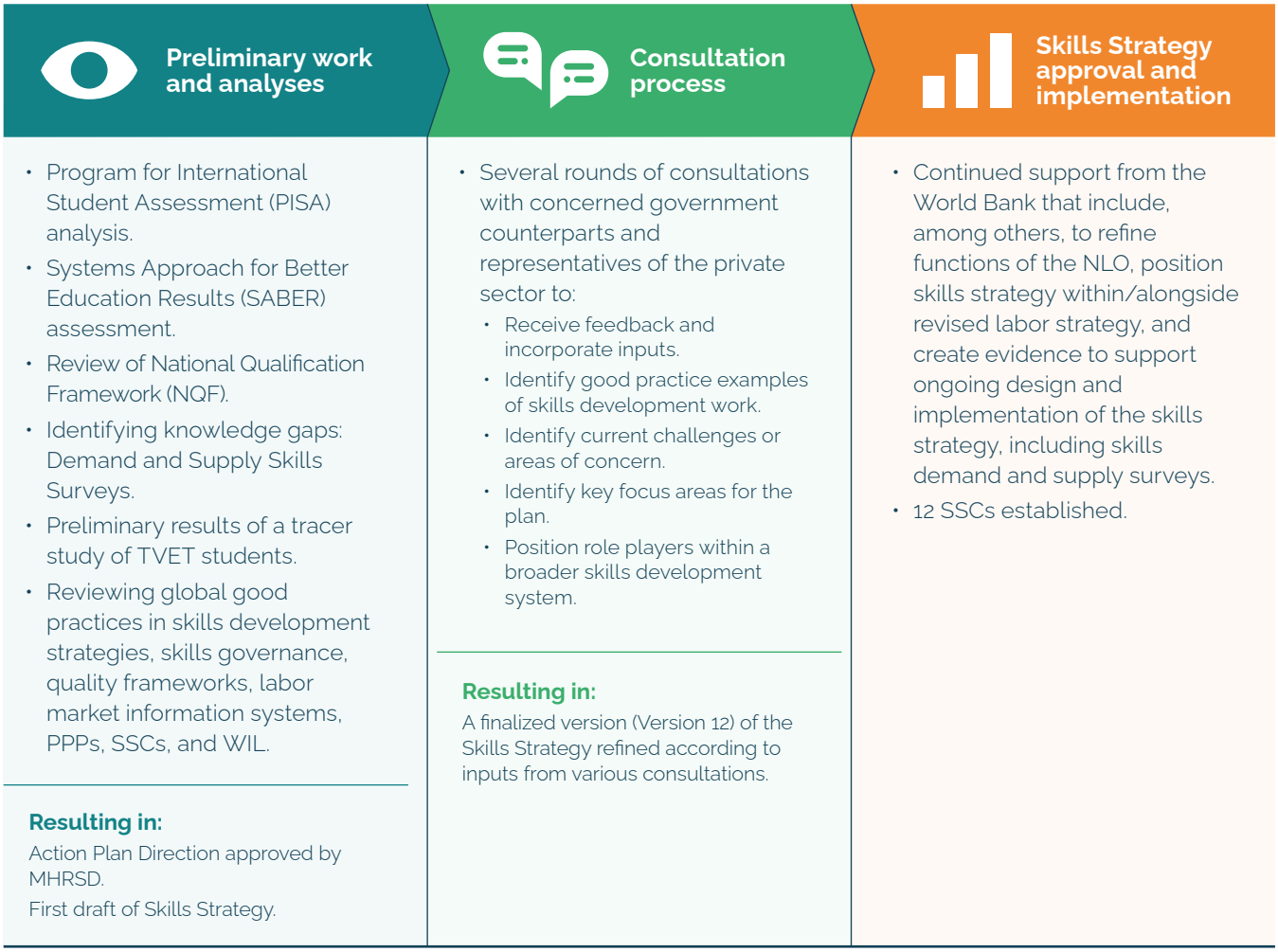
which requires that all functions related to quality assurance are monitored and standardized; iii) Establishing an integrated LMIS to ensure information flow between supply and demand; iv) Establishing SSCs to facilitate a demand-driven skills development system; v) Creating more WIL opportunities and PPPs to strengthen experiential learning experiences and public private relationships; and vi) Ensuring responsive education and training supply by introducing flexible approaches to curriculum design and development, the delivery of content, and ensuring the quality of courses/programs and the teaching staff responsible for curriculum delivery.

▲ MHRSD Archive

Development and finalization of the skills strategy took place over the course of two years. Figure 3 shows the sequence of events that took place to develop the skills strategy. In mid-2020, the Skills and Training Deputyship of the MHRSD, together with the World Bank, hosted workshops to discuss the current state of skills development efforts and review preliminary analysis of skills gap analyses. These workshops put in motion an initial draft of the skills strategy that was presented and reviewed in subsequent workshops during November 2020. In the first few months of 2021, the strategy was presented individually to stakeholders, such as the TVTC, HRDF, GASTAT, TAKAMOL, the Ministry of Education, and ETEC to receive inputs and feedback. The consultations resulted in refined versions of the strategy, and from mid-2021, the final drafts of the strategy were approved.

Since then, the World Bank has provided continuous support to MHRSD to align the strategy with the Labor Market Strategy, to develop a practical implementation framework for the strategy (as shown in Figure 4), and to establish key components of a skills development system, such as SSCs and a comprehensive LMIS.

Fig. 3 **Initial steps taken to develop a skills strategy for the KSA**



From the conceptual work, the MHRSD has refined the skills strategy into a National Skills System Framework to complement the renewed Labor Market Strategy and guide practical implementation. Figure 4 illustrates the key components of such efforts that include skills planning, skills recognition, and skills management as core activities. In practice, the functions of each component might include having systems and procedures in place to standardize and recognize skills, managing skills mismatches and widening opportunities for international skill exchange, and so forth. Factors such as policy support, governance, funding, monitoring and evaluation processes, and private sector engagement are considered enabling factors that need to be put in place to support the components of skills systems. The framework shown in Figure 4 illustrates how system-level thinking in skills development can be translated into practical applications.

Fig. 4 **National Skills System Framework**

Core Activities

Skills Planning

Standardize
national classification for skillls, and occupational & industry standards

Anticipate
future skills needs, growth sector & emerging occupations

Identify
current skills gap and employment

Skills Development

Develop
skills through formal (compulsory) education, incl. early childhood education & care, primary, secondary, vocational & higher education and training, and entrepreneurship promotion

Upskill
labor force with new / expanded capabilities

Reskill & New Skill
displaced workers, reduce skills imbalance & misalignment

Skills Recognition

Assess & Recognize
qualifications & skills through assessment, verification & accreditation of training institutes & packages, certification and licensing of practitioners, and NQF

Skills Management

Utilize
skills effectively, match with employment opportunities & increase participation

Mobilize
skilled talents to and from international markets

Enablers

- **Skills Policy Framework**
- **Governance Coordination Mechanism**
- **Monitoring & Evaluation**
- **Funding**
- **Private Sector Engagement**
- **Technology & Data**
- **Policy-Oriented Research**
- **Boost the Demand** for high-level skills & jobs

2. A systems-level framework for skills development

The purpose of a systems-level approach to skills development is to build on existing efforts to create a coordinated system that optimally supports skills development. For the KSA and many other contexts where skills development efforts have been implemented in various forms, this approach seems to be a good fit as it strengthens the key elements necessary to develop skills in a coordinated way. Figure 3 proposes a skills development system framework based on five foundational principles:

Principle 1: Skills systems cannot succeed without an enabling environment and good governance.

Principle 2: Skills systems need to be demand-led.

Principle 3: Supply-demand decisions need to be based on accurate and timely information.

Principle 4: Improving quality assurance in skills development systems optimizes the credibility, relevance, and transferability of skills.

Principle 5: Partnerships between education and training providers and the private sector can rapidly advance skills development.

Five principles form the foundation for a coordinated skills development system.

Together, these principles form the foundation for a coordinated skills development system. Figure 5 illustrates the interconnectedness of a system-level skills development framework, consisting of different sub-systems and functions, some of which are already present in most contexts, with differing levels of maturity and efficiency. Most contexts, for example, have an education and training system in place, consisting of basic, vocational, and higher education, as well as other forms of training beyond the formal educational levels. Of particular interest for skills systems is TVET education, which by design should offer direct pathways to the labor market in desired areas of economic growth. In practice, this is not always the case, as there is often a disconnect between the demands of the labor market and the supply of skills, as well as challenges with the quality of TVET qualifications.

Demand-driven skills development systems require strong participation from the private sector and accurate labor market information. Sectoral bodies, such as SSCs, are positioned to represent the voice of private sector stakeholders. They play a facilitating role between education and training providers and private sector stakeholders by making clear the skills needs of the labor market that will inform the supply of education and training. Access to relevant labor market information is an important contributor to strengthen the supply-demand link. Thus, a more sophisticated and integrated LMIS will produce better quality information and projections, which in turn will guide SSCs, education and training providers, and other decision makers to optimally align supply-demand efforts.

The quality of education and training provision also largely depends on the interconnectivity between supply and demand. In the context of a skills development system, quality refers to the availability of skills standards, alignment of such standards with qualifications frameworks, and the relevance of curriculums and course designs. An intricate system of quality assurance bodies and processes typically enable these considerations. As shown in Figure 5, education and training providers work directly with quality assurance bodies to ensure accreditation of institutions, courses and qualifications. SSCs, or similar private representatives, play an important role in supporting quality assurance agencies to develop skills standards, and the LMIS plays a role in capturing and disseminating information on skills standards and ultimately how skills translate into jobs.

The interactions between education and training providers, quality assurance agencies, LMIS coordinators, and sectoral bodies are dependent on an enabling environment and good governance. All of the sub-systems listed in the framework are complex in their own right. An enabling environment is needed to allow skills development to function as a coordinated system. This implies having supportive policies in place, sustainable funding to support initiatives, and accountability measures to ensure advancement of skills development. Further, coordinating the functions of the sub-systems into a uniform skills development system requires good governance, responsible for facilitating relationships, resource distribution, and overseeing policy implementation, among others. At the center of such a systems-level framework is coordinating the interrelationships between existing sub-systems, functions, or entities to work towards common goals in skills development. Each of the foundational principles will be explored in more detail next.

Fig. 5

A system-level framework for skills development systems

Enabling environment

Key functions:

- Legislation/policy that outlines a coordinated skills system's structure, components, funding arragements, and accountability measures.
- Ensuring strategic alignment with other national legislation/policies.
- Funding arrangements, such as training funds.
- Accountability measures could include performance indicators; monitoring and evaluation specifications; and reporting arrangements.

Good Governance

Key functions:

- Coordinating responsibilities of all role players.
- Supporting relationship building and faciliting partnerships.
- Managing funding of the system.
- Resources distribution.
- Policy development.
- Overseeing policy implementation, monitoring, and evaluation.

Quality Assurance (QA)

Key functions:

- Ensuring quality of program offerings.
- Ensuring quality of education and training providers.
- Ensuring the quality of outcomes.
- Classification, standardization, verification, and authentication of skills.

Depends on sectorial bodies to direct industry standards through professional bodies.

Depends on education and training providers to adhere to quality assurance guidelines, contribute to skill standardization, and invest in staff development efforts.

Depends on LMIS collaboration to produce and distribute occupational standards and monitor skill recognition efforts.

Sectorial bodies

Key functions:

- Providing policy advice and feedback.
- Generating and/or interpreting labor market information.
- Developing and/or informing qualifications, curricula, learning outcomes, learning resources, and assessments.
- Facilitating relationships to enable WIL opportunities.
- Supporting quality assurance of training (including setting skill standards).
- Promoting skills training, career information, advice and guidance.
- Supporting the professional development of teachers, trainers, and assessors.
- Administering levy funds.

Depends on QA to collaborate on accreditation, skills verification, and standardization.

Depends on education and training to develop programs and courses that align with labor market needs.

Depends on relevant and timely information from LMIS to guide decisions.

Education and training

Key functions:

- Provide relevant programs/course offerings that are informed by the private sector and respond to labor market needs.
- Collect and analyze education and training data to identify trends.
- Ensure that education and training programs/courses align with appropriate quality assurance practices.
- Establish and maintain relationships with the private sector to inform program and course content, design, and delivery.

Depends on QA for accreditation, guidance on skills standards, and skill verification and recognition services.

Depends on sectoral bodies to indicate labor market skills needs, inform programs and courses, and facilitate relationships with the private sector.

Depends on LMIS for relevant and timely labor market information to guide program/course planning and career guidance.

Labor market information system (LMIS)

Key functions:

- Producing general statistics on labor market trends.
- Developing regional/sectoral dashboards.
- Facilitating job matching.
- Provides career counselling.
- Provides individualized information based on criteria provided by the user.

Depends on QA to provide guidance on skill classification and standardization.

Depends on sectoral bodies to indicate where information needs are and to support data sharing agreements.

Depends on education and training to provide EMIS and other data (e.g., WIL participation, tracer study data, etc.).

2.1 Principle 1

Skills systems cannot succeed without an enabling environment and good governance.

Skills strategies should complement and strengthen existing strategic priorities.

The economic environment plays a pivotal role in creating alignment and synergy between supply and demand needs. A robust economy provides the foundation for investments in education, training programs, and technological advancements, fostering an environment where individuals can acquire and hone their skills. Adequate resources, funding, and employment opportunities incentivize people to invest in their education and skill enhancement, ensuring a continuous cycle of learning and growth. A flourishing economy further encourages innovation and entrepreneurship, creating avenues for individuals to apply and expand their skill sets, thereby contributing to economic productivity and competitiveness on a global scale. Moreover, in a thriving economic landscape, policies and initiatives can be implemented to support lifelong learning, enabling individuals to adapt to evolving job markets and technological advancements, ultimately driving sustained economic growth and prosperity.

Political will, or the committed support among key decision-makers for a particular policy solution, is key to the success of any national strategic initiative. The last few decades have seen several governments recognize the importance of education and training in influencing the labor market. Consequently, since the early 2000s, governments across the world have aimed to improve the status and relevance of TVET systems to strengthen the supply-demand chain. The main policy interventions driving this goal have focused on a group of common intervention areas, including reforms to TVET governance to increase participation and ownership; attempts to create a coordinated training system to support economic growth; developing national qualification frameworks that recognize vocational and other skills education and training; extending vocational quality assurance systems to include public and private training; diversifying funding modalities for skills development; and finding ways to increase PPPs in skills development.[24]

Skills strategies should complement and strengthen existing strategic priorities. Aligning strategic socioeconomic priorities with skills strategies is fundamental for sustainable and inclusive development. Strategic alignment ensures that skill development initiatives cater to the demands of evolving industries, aligning training programs with emerging job markets and technological advancements. Moreover, by focusing on areas crucial to socioeconomic progress—such as healthcare, renewable energy, or digital infrastructure—skills strategies can be tailored to meet specific sectoral needs, fostering expertise that directly benefits the community. This alignment also aids in bridging societal gaps by creating opportunities for

24 ILO, 2018.

marginalized groups, promoting diversity, and reducing inequalities. When skills strategies align with socioeconomic objectives, they become a catalyst for economic growth, thereby enhancing the resilience and competitiveness of economies on a global scale.

Initial planning should include options for sustainable funding and clear accountability measures. While skills development funding typically comes from government budgets, student fees, and the private sector, the most popular means of supporting skills development has been setting up training funds. With at least around 100 countries implementing training funds to support skills development, these funds are mainly financed by employer levies, public subsidies, or donor financing.[25] Figure 6 illustrates some of the models used to support skills development. South Africa is a typical example of a revenue generating model, where employers are required to pay 1 percent of their total payroll to the levy, which is then distributed to the sector skills bodies and other national priorities.[26] Brazil, in turn, also implements a revenue generating model, however, the training fund is managed by the private sector, which ensures alignment between skills development supply and demand needs.[27]

As an alternative or addition to revenue generating models, incentive schemes provide more contextual training options to enterprises. While revenue generating models prioritize national initiatives, incentivized models allow employers to take advantage of different forms of support to engage staff in further education and training. Singapore offers training grants that increase in value when individuals participate in certified courses, are from designated social groups, or participate in specific courses.[28] Examples from New York and British Colombia in the US and Canada, respectively, illustrate how tax credit initiatives could encourage employers to support participation in training for their employees. In New York state, tax credit is equal to 50 percent of the eligible training costs up to $10,000 (per employee), and 50 percent of the stipend paid to an intern up to $3,000 (per intern). In British Colombia, apprenticeship programs receive 20 percent of eligible salary and wages up to $4,000.[29]

25 ILO, 2020.

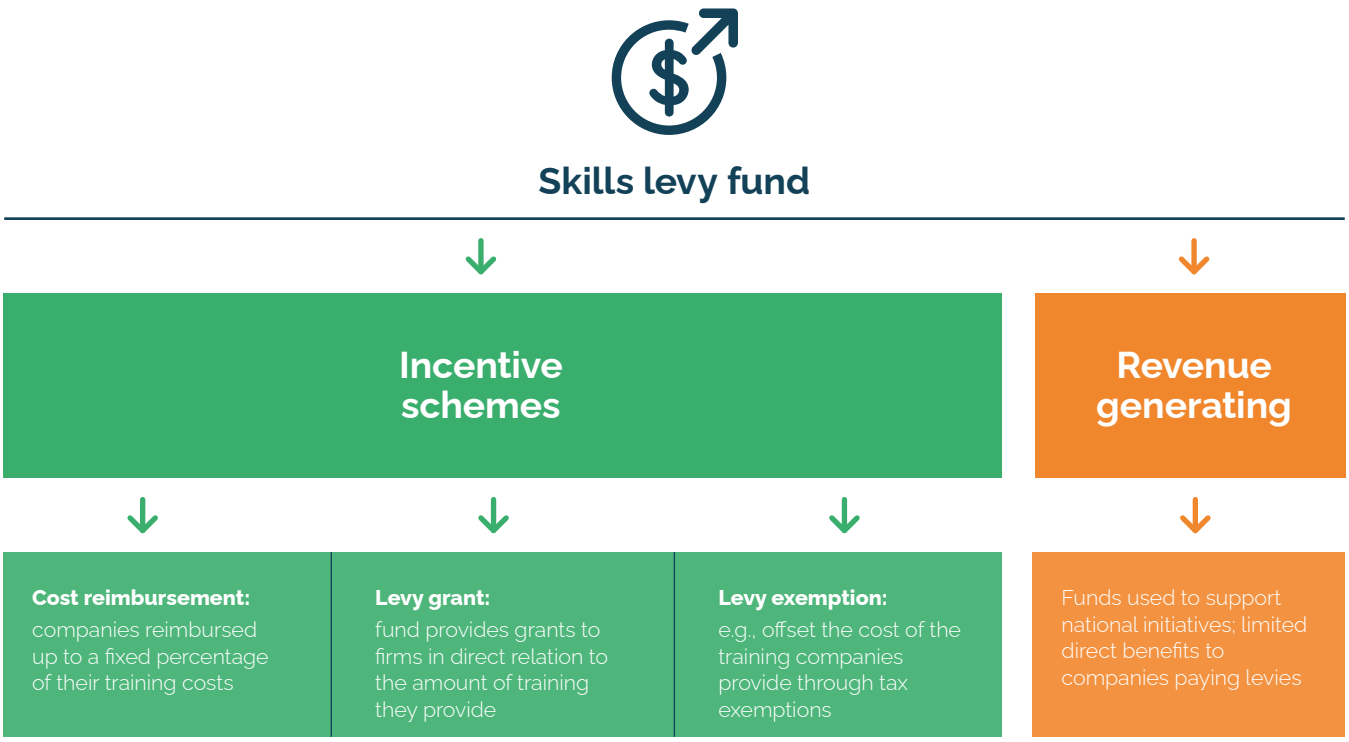
26 Republic of South Africa, 1999.

27 *https://www.portaldaindustria.com.br/senai/*

28 *SSG | Funding Support for Employers (skillsfuture.gov.sg)*

29 *https://www.tax.ny.gov/pit/credits/employee_training_incentive_credit.htm*; *https://www2.gov.bc.ca/gov/content/taxes/income-taxes/corporate/credits/training/employer*

Fig. 6 **Skills levy fund distribution models**



Source: Adapted from UNESCO, 2018; UNESCO, 2022.

A clear monitoring and evaluation plan should be developed as part of the skills strategy. Such a plan might include a results framework that explains the logical relationships between inputs, outputs, outcomes, and impact of initiative, as well as expected reporting processes to promote accountability. Central to a results framework is to determine the desired outcomes and impact, along with setting clear performance indicators to measure progress. Figure 7 illustrates a simplified example where the aim is to strengthen private sector participation in skills development. The initial goal, baseline analyses, and proposed indicators play a key role in measuring progress towards reaching goals and determining the impact of interventions. Performance indicators need to be measurable, determined from baseline information, realistically achievable, and able to provide an indication of progress towards the desired goal(s). A clear monitoring and evaluation plan that includes a detailed results framework and reporting strategy can provide an implementation roadmap to those responsible for implementing the skills strategy and contribute to creating a culture of accountability.

Fig. 7 **Typical results framework and implementation example**

Typical results framework	Implementation example
Determine goals and desired outcomes and impact with clear performance indicators.	Strengthened private sector participation in skills development (e.g., measured by the number of programs/courses influenced by SSCs; number of private secor representatives engaging with SSCs; number of PPPs; and so forth).
Inputs Planned activities intended to reach goals.	**Inputs** Preparing to establish SSCs (e.g., establishing baseline data and reviewing indicators; consulting with sectors; drafting mandates; etc.)
Outputs Future skills needs, growth sector & emerging occupations.	**Outputs** Establishment of SSCs (e.g., one for each target economic sector).
Outcomes Medium-term results.	**Outcomes** Higher participation rates of private sector in skills development through SSC facilitation (indicators determined from baseline analysis).
Impacts Longer-term change as a result of the interventions.	**Impacts** A demand-led skills system (measured in relation to baseline skills missmatch analyses and targets set).

Source: Adapted from World Bank, 2012.

A dedicated entity or unit should drive the skills strategy development process. While many countries envision alignment in national policies, few can translate visions into practice – arguably because of a lack of state capability to oversee the implementation, monitoring, and evaluation of policy initiatives at ground level.[30] For this reason, the importance of having a dedicated unit/entity that takes the lead to drive the development and implementation of a skills strategy cannot be underestimated. Such a unit further takes the lead in consulting with stakeholders and promoting buy-in for the strategy. In the KSA context, the MHRSD played a leading role by working closely with the World Bank to conduct baseline analyses, as well as securing buy-in from respective stakeholders through an extensive consultation process. Figure 6 illustrates the process that was followed to develop a skills strategy for the KSA.

30 Andrews et al, 2017.

▲ iStock.com / Thx4Stock

Governance of a skills system entails coordinating various role players in the skills supply and demand chain to unite efforts towards common goals. The key functions of a governance structure might include coordinating responsibilities of all the relevant role players, contributing and managing funding of the system, overseeing the development of information systems, resource distribution, policy development, and overseeing the implementation, monitoring, and evaluation of relevant policies. Put differently, successful governance arrangements require coordination, cooperation, collaboration, and accountability across the whole of government.[31]

Key to the success of any governance structure of skills systems is a shared conviction that skills are a national priority. This implies recognition of the value of the skills development system from the highest level of government to individual ministries, the private sector, and the entire education and training system. An inter-ministerial committee would be ideal to coordinate different roles and facilitate relationships. However, navigating the politics accompanying inter-ministerial committees has proven to be difficult. From reviewing different cases, the ILO proposes a list of seven factors that are important to the success of inter-ministerial committees in skills development. These factors are illustrated in Box 2.

31 OECD, 2019.

BOX 2

Seven key factors to support inter-ministerial collaboration

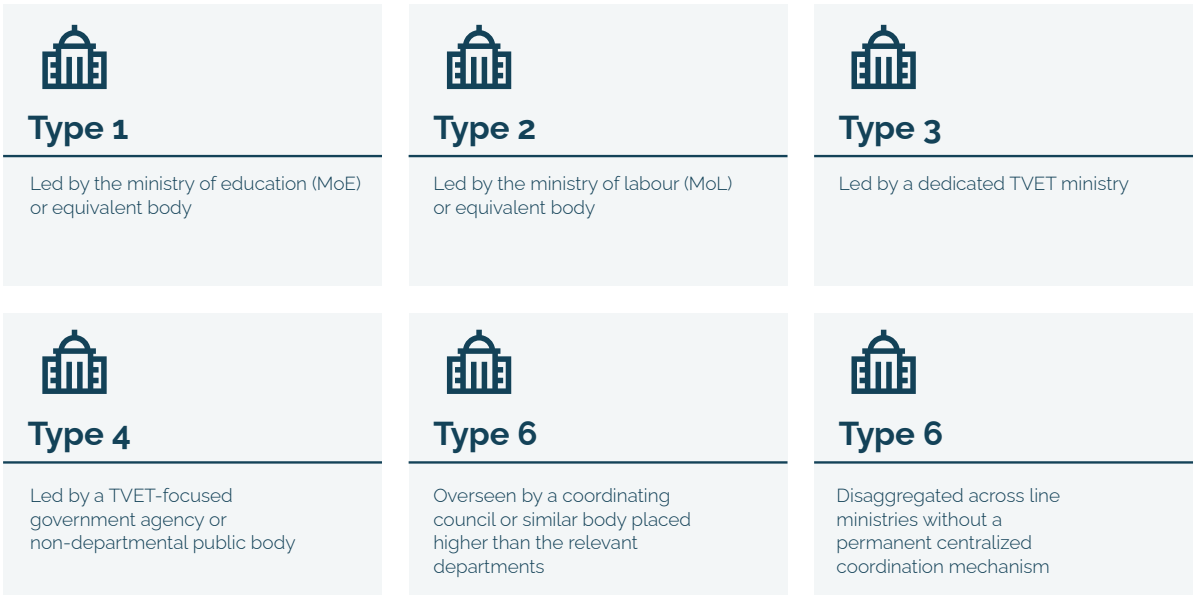
1. **Ministerial leaders across government portfolios have a genuine commitment to improving inter-ministerial coordination for TVET and skills development.** If the government has clarity over what it wants to achieve with skills development, it creates focus for inter-ministerial coordination.
2. **Leaders are clear about their ministries' roles and objectives in skills development and are willing to stake their reputation through public pronouncements on intended outcomes.** This implies a commitment to action and not just agreeing in principle.
3. **There is adequate expertise and capacity to effectively facilitate implementation of proposed reforms and achieve meaningful inter-ministerial coordination.** Many reform initiatives in developing countries fail to achieve sustained improvements because of the gap between the conceptualization of strategic initiatives, and the practicalities of implementing such initiatives.
4. **There is consensus on the need for change which can be harnessed to improve inter-ministerial coordination.** If there is widespread acceptance and acknowledgement of a significant problem it creates opportunities to challenge the status quo.
5. **The underpinning political-economic institutional structures are conducive to coordination between government and social partners.** The ease of forming partnerships will depend on the nature of historical relationships between role players. If necessary, objective support mechanisms can be brought in to facilitate partnerships.
6. **Evidence, such as accurate, relevant, and timely labor market information guides inter-ministerial coordination.** Labor market information can identify where there are significant skills shortages or gaps in certain parts of the economy, and predict where skill needs are likely to increase in future. This in turn can focus inter-ministerial attention and promote coordination as a means of matching skills supply and demand.
7. **Adequate resources are available to support improved inter-ministerial coordination.** Dedicated and fair resource allocation is an important contributor to avoiding infighting about resources.

Source: ILO, 2018.

The governance structures of skills systems differ between countries. ILO and UNESCO research identified six models of inter-ministerial skills development task teams, including teams led by ministries of education, labor, a dedicated TVET ministry or independent TVET agency, a coordinating council, and interaction of ministries without a permanent, centralized coordination unit (Figure 8). In their analysis of the effectiveness of each

of these governance approaches, none of the coordination types stands out as exemplary, leading to the conclusion that successful governance of skills systems depends largely on models structured to meet unique contexts' needs. That said, the renewed focus on governance across international efforts to advance skills development systems testifies to the importance of having a strong governance structure to guide skills ecosystems.

Fig 8 **Types of governance structures**



Source: ILO, 2018.

The governance of skills development systems is complex and differs even within the ILO typology of governance structure trends. The four country examples shared in Table 3 illustrate the complexity of governance structures. The South African example represents a Type 1 governance structure, where the National Skills Commission is situated within an education ministry (reporting to the Department of Higher Education and Training). The Ireland example illustrates a Type 5 governance structure; however, while the National Skills Council is not positioned within a ministry, it still reports to the education ministry and the chairperson of the Council is an industry representative. The Singaporean governance structure also illustrates a Type 5 governance structure, with the Future Economy Council led by the Deputy Prime Minister and Minister for Economic Policy. Lastly, the example from India shows a complex, three-tier governance system that positions the first tier in a Type 5 governance structure, and the second tier in a Type 3 governance structure, with the Minister of Skills Development and Entrepreneurship leading the steering committee. All four examples further illustrate how governance structures cascade into sectors, regions, or industries, thereby attempting to avoid a blanket approach to skills development initiatives.

In general, the strengths of the different models point to the value of a structured approach to skills development that is guided by some form of policy, legislation, or strategy, and prioritized at the highest levels of national governance. However, even in structured or seemingly

well-developed skills systems, there are persistent challenges with governance that are difficult to overcome. From its extensive work in supporting countries to develop skills strategies, the OECD has identified key challenges pertaining to the governance of skills policies specifically, including

- *Promoting coordination, cooperation, and collaboration across the whole of government.* It is often easier said than done to rearrange existing reporting structures and change the way things have been done for many years. Balancing government regulation and market autonomy, and the potentially competing interests of all stakeholders, is a matter of political decision that has to be navigated carefully.
- *Engaging with stakeholders throughout the policy cycle.* A common trend that inhibits meaningful stakeholder engagement is a lack of formal role allocation, where representatives are merely invited to provide inputs during the policy development process. Including stakeholders in formal, predefined roles in decision-making bodies that ensure their continued participation in policy development, implementation, and evaluation processes promotes stronger engagement.
- *Building integrated information systems.* While there has been some movement in developing sophisticated labor market information systems, many countries still have a long way to go toward leveraging integrated data to inform policy and practice.
- *Aligning and coordinating financing arrangements.* For many countries, political calls to invest in skills and skill development are constantly at risk of being superseded by more pressing and short-term-oriented demands.[32]

For the KSA, because of the many initiatives already in place, the governance of a skills system would need to have a strong focus on bringing together a fragmented system to serve common goals. A strong governance structure will ensure the focus and sustainability of the skills development system, which in turn will enable it to respond to the KSA's skills development needs, coordinate the functions of role-players within the skills development system, develop a sound policy base, and secure buy-in from stakeholders. Significant progress has been made in recent years. After approval of the Labor Market Strategy (LMS) by the Council of Ministers in December 2020, the MHRSD was tasked with activating the Skills Pillar of the LMS. This resulted in the establishment of a team under a new deputyship, 'Skills & Training', to actively lead the skills agenda in the labor market. It was a humble start with a small team but the mission was very ambitious. Today, this deputyship consists of 50 people who run a portfolio of 22 projects with a value of over 1.6 billion Riyals. MHRSD has launched several initiatives and regulations under the Skill Strategy, including a national program to stimulate private sector training that focuses on labor market-related policies and regulations on education and training. In this context, the MHRSD has launched a national campaign for train-

32 OECD, 2020.

ing ("WAAD"), where elite companies pledge 1.115 million training opportunities. The campaign reached 75% of its targeted pledges in the first 10 months. These impactful initiatives illustrate how governance and focus can create impact in the labor market.

Table 3 Examples of governance structures

	Primary level governance	Secondary level governance
Ireland	The **National Skills Council**[33] governs the skills system. It brings together sectors to focus on skills needs, advises the Minister of Education to align supply and demand, and oversees and approves research and publications by the Expert Group on Future Skills Needs and the Skills and Labor Market Research Unit. It consists of around 20 members, chaired by a representative from the private sector.	**Nine regional skills fora** prioritize regional skills development, partnerships, and supply-demand alignment.[34] This contributes to the implementation of the national strategy. Implementation of the skills strategy also takes place via **SkillNet Ireland**,[35] a business support agency that supports workforce training.
Singapore	The **Future Economy Council (FEC)** drives the growth and transformation of Singapore's economy for the future. Chaired by the Deputy Prime Minister and Coordinating Minister for Economic Policy, the Council comprises around 30 members from government, industry, unions, and educational and training institutions.[36]	**The FEC is supported by seven clusters**, each co-chaired by political office-holder(s) and private sector member(s). Clusters are sector-based and consist of Advanced Manufacturing and Trade, Connectivity, Human Health and Potential, Urban Systems, Resource and Environmental Sustainability, Modern Services, and Lifestyle clusters. **Skillsfuture**[37] is the public-facing platform that supports implementation of FEC and cluster initiatives.

33 Department of Further and Higher Education, Research, Innovation and Science, 2023a.
34 Department of Further and Higher Education, Research, Innovation and Science, 2023b.
35 *https://www.skillnetireland.ie/*
36 Ministry of Trade and Industry, 2023.
37 *SSG | SkillsFuture Movement*

	Primary level governance	Secondary level governance
India	**The National Skills Development Mission** was established to consolidate and coordinate skilling efforts. Governance consists of three tiers: **1) Governing Council, chaired by the Prime Minister.** The Council includes representatives from several ministries, academia, industry, and state chief ministers. The Council provides policy guidance and strategic decisions. **2) Steering Committee. This inter-ministerial committee is chaired by the Minister of Skills Development and Entrepreneurship (MSDE).** Its mandate is to ensure the implementation of mission activities as per policies and decisions laid down by the governing Council. **3) Mission directorate, consisting of inter-ministerial secretaries and chaired by the MSDE secretary.** The directorate is tasked with coordinating implementation, monitoring, and evaluation.[38]	**MSDE sub-structures include:** the National Skill Development Agency (NSDA), responsible for quality and skills research, the National Skill Development Corporation (NSDC), supporting private training partners, the Directorate General of Training (DGT), facilitating WIL, and State Skill Development Missions. There are also 37 SSCs operational, with over 600 private sector representatives serving on the governing councils of the SSCs.[39]
South Africa	**The National Skills Authority (NSA)**[40] is a statutory body, established under the guidance of the Skills Development Act and reports to the Minister of Higher Education and Training. It consists of approximately 30 representatives from the state, organized business, organized labor, the community in general, education and training providers, employment services, skills experts, quality councils, and the qualifications authority. NSA mediates between policy advice for the Minister, facilitating provincial forums, and coordinating Sector Education and Training Authorities (SETAs).	Among other tasks, **21 SETAs** are responsible for developing and implementing skills plans, and promoting learning programs.[41] Each SETA is governed by a board with representatives from relevant ministries, employers, and employees and operates as a micro-system within the national system.

38 Ministry of Skill Development and Entrepreneurship, 2023b.
39 Ministry of Skill Development and Entrepreneurship, 2023a.
40 *http://www.nationalskillsauthority.org.za/*
41 *https://www.dhet.gov.za/SitePages/SETAlinks.aspx*

2.2 Principle 2

Skills systems need to be demand-led.

Demand-led skills development systems are key to addressing potential skills gaps and ensuring that the workforce is equipped with the necessary skills to meet the demands of evolving industries and technologies. A demand-led approach to skills development also promotes efficiency and resource allocation. By focusing on skills that are in high demand, it avoids unnecessary training in areas where there are few job prospects, preventing individuals from spending time and resources acquiring skills that may not lead to employment. A demand-led approach involves regularly surveying employers, analyzing labor market trends, forecasting high-demand occupations, and using this data to shape skills development priorities. Such an approach to skills development not only benefits individuals and industries but also contributes to the overall resilience and competitiveness of economies in a rapidly changing global landscape.

A demand-led approach involves regularly surveying employers, analyzing labor market trends, forecasting high-demand occupations, and using this data to shape skills development priorities.

Successful alignment of labor market demand with education and training supply depends to a great extent on involvement of representatives from the private sector. Representative bodies of the private sector take on different forms and consist of various representatives from unions, associations, field experts, employers, academics, and professional bodies, among others. Arguably the most common form of representative bodies are SSCs. In countries with longstanding collaborative relationships between different sectors, such as France, SSCs play a central role in coordinating the public-private relationship and facilitating the links between quality provisions of education and training and identifying emerging demands in the labor market. In addition, SSCs play an important facilitating role in aligning education and training with the development of Small and Medium Enterprises (SMEs) in key areas. Their support can extend to providing access to incubators, technology hubs, mentorship, funding, and other intensive support structures to help start-ups succeed and facilitate putting innovations from research and development into practice.

The roles of sectoral bodies can vary, depending on the country context and demands of the skills development system. In some cases, sectoral bodies will take on more of an advisory role, while in other circumstances they might act as gatekeepers to regulate the quality of skills development in and for occupations. In general, the functions of sectoral bodies might include providing policy advice and feedback; generating and/or interpreting labor market information; developing and/or informing qualifications, curricula, learning outcomes, learning resources, and assessments; developing apprenticeship pathways; facilitating relationships to enable WIL opportunities; supporting quality assurance of training (including setting skill standards); promoting skills training, career information, advice, and guidance; supporting the professional development of teachers, trainers, and assessors; and administering levy funds. Box 3 illustrates how SSC partnership models have been conceptualized.

BOX 3

SSC partnership models

Different models of employer engagement with SSCs have been identified:

- **The employer-involved model** (two variants) is based on employer volunteerism. It includes voluntary engagement of employers in sectoral skills debates, primarily through consultations and/or when there is statutory engagement of employers in financing sectoral skills delivery and voluntary consultation. The UK fits into the first variant, while South Africa and France might fit into the second variant with statutory obligations to implement training imposed by a levy grant system. Employer involvement in this model is minimal and passive.
- **Employer-modelled,** when best-practice models of skills development are used to shape training practices within the sector. Government plays a strategic role in offering funding to sectors to first identify a best practice model of training needs, then rolling out the model within sectors, facilitated by SSCs. Singapore is an example of this approach.
- **Employer-owned.** This is an employer-funded sectoral approach that ties into sectoral skills strategies and needs, as identified by employer associations and representative groups. There is minimal governmental involvement and employer funding drives meeting the demand of the sector. An example is the Hong Kong construction and clothing industry training associations (or sectoral bodies) that align supply initiatives, such as curricula and placement of trainees, with employer demands to strengthen the sector's productivity.
- **Employer-driven model** (two variants), when public vocational education is determined by employer demand, and/or when private partnerships bring employers together to identify and invest in training. The Netherlands is an example of the first variant, where employers work through SSCs to identify skills needs. This information is fed into the TVET system through regional colleges to develop relevant curricula. The German dual model is an example of the latter, where there is a strong culture of private sector investment in education and training.

Another approach to SSC partnership models proposes classifying SSCs based on the functions they perform. For example:

- SSCs mainly acting in an **advisory capacity**, with some contributions to setting industry/sectoral standards. This is the case in countries such as Mozambique, Bangladesh, and Antigua and Barbuda.
- SSCs mainly acting as **interventionists**, with functions ranging from advisory roles to quality assurance (setting standards, accrediting and certification), and managing supply responsiveness to sectoral demands. Most countries with SSCs seemingly fit into this category, including South Africa, Botswana, Kenya, India, the UK, and so forth.
- **Demand-led SSCs**, which perform all the functions listed for the other two approaches, with the addition of managing both demand and supply in the sector. Examples include those of Canada and Singapore.

Source: Raddon and Sung, 2006; Powell, 2016.

Introducing sectoral bodies might be challenging, especially in rigid political-economic cultures. Depending on the model/approach and functions, some government entities are likely to be required to either hand over or share responsibilities with the newly established sectoral bodies. This demands good change-management processes to empower the sectoral bodies, without alienating government entities. Other potential challenges with implementing sectoral bodies might include a lack of clarity on the key purpose of such bodies; underestimating the complexity of implementing some functions, which might cause excessive lead times to implementation; experiencing challenges with engaging stakeholders and generating buy-in and commitment from others; and securing sustainable funding that will support the mandate of sectoral bodies.

Building or strengthening relationships between stakeholders in a sector is vital. Bodies in charge of establishing SSCs need to hold a series of consultation events with significant employers in the sector, key membership organizations, workers' organizations and trade unions, representatives of relevant civil organizations, relevant ministries, and key education and training bodies, including TVET colleges, universities, independent training providers, coordinating councils, quality assurance agencies, qualifications authorities, and so forth. Investing in relationship building and building trust takes time and effort but is well worth the effort in the long run.

Through the consultation processes, the needs of role players, the mandate of the sectoral bodies, and nominations for membership need to be clarified so that all stakeholders can contribute. Sectoral body membership needs to be representative of different stakeholders, including SMEs. When stakeholders feel included, they are more likely to participate. Stakeholders further need to be clear on the approach that the sectoral bodies will take and to what extent employers will have ownership of sectoral bodies. Other incentives to get buy-in and participation from the private sector might include tax benefits or non-monetary benefits, such as partnerships with education and training providers, or access to specialized data.[42] Box 4 summarizes factors that contribute to the successful implementation of SSCs.

42 ILO, 2021.

BOX 4

What makes sectoral bodies successful?

International literature on SSCs notes that the most important determinant of SSC success is employer ownership of the system. Employers must be able to influence the system by articulating their needs, advising how these can best be met and identifying market failures.

For SSCs to be successful, the ILO lists the following factors as key:

- A stable policy landscape.
- A clear remit for the sectoral body that does not overlap with other organizations, and which has a clear legal basis provided by a specific piece of legislation, regulation, or national policy.
- A clear accountability framework that provides real autonomy and allows the SSC to undertake its work with other stakeholders without having to constantly seek approval from a parent government ministry or agency.
- A dynamic culture of change where employers and stakeholders can see progress in the system as a result of the actions of the SSCs.

Investing in these and other best practices to strengthen processes will ultimately result in better outcomes for the sector.

Source: ILO, 2021.

The KSA has prioritized a demand-driven approach by establishing SSCs early in the skills strategy implementation process. Engagements with different role players in the KSA skills development system point to the need for stronger relationships between the public and private sectors. To this end, the MHRSD has recently established 12 Sector Skill Councils that represent 75% of GDP with more than 200 members from both private and public sectors. Private sector participation dominates in the SSCs to ensure a demand-driven approach to skill development (Box 5). While establishing SSCs could be a good starting point to facilitate such relationships, they need to be managed well and have a clear purpose, as at least one previous effort to establish SSCs failed. Given the engagements with a range of representatives who form part of the skills system as part of the preparation of the skills strategy, it is likely that previous attempts at establishing SSCs were unsuccessful because of a lack of a clear mandate and governance thereof. In addition, to date the skills system has been fragmented, which would have made it difficult for SSCs to operate in cohesion with other entities. To ensure the success of the newly established SSCs, the KSA has done extensive research and engaged with key international expertise to learn from others about the challenges and conditions for success that shape efficient SSCs.

BOX 5

Balancing data-driven and service functions of the LMIS

At its core, SSCs in the KSA are mandated to establish sector intelligence, develop skills standards (including sector skills frameworks and national occupational standards), and engage with entities to design and implement required skilling interventions across the sectors.

To date, 12 SSCs have been established in the Kingdom covering approximately 75% of GDP and employment. Councils cover the following sectors:

- Manufacturing
- Tourism and hospitality
- Energy and utilities
- Health
- Digital
- Culture and entertainment
- Wholesale and retail
- Construction and real estate
- Logistics and transportation
- Security services
- Financial and insurance services
- Professional and consulting services

Each SSC consists of 15-20 members, with the majority (approximately 60%) representing employers, followed by select representation from government, workers, and experts. Each sector is led by a senior representative from the relevant sector ministry or private sector at Deputy Minister or CHRO/CEO seniority who understands the key skill needs of the sector.

Each SSC reports to the Executive Committee (headed by the Vice Minister of MHRSD) and Steering Committee (headed by the Minister of the MHRSD). The SSCs have a well-defined operating model, where a dedicated general secretariat provides support for content development, skills intelligence development, standards drafting, and operations. Work is underway to detail a sustainability model for the SSCs beyond 2024.

Source: Ministry of Human Resource and Social Development, Saudi Arabia

In addition to the role of SSCs in a demand-led skills system, TVET is generally considered a key driver of skills development systems and many countries have put in considerable effort in recent years to advance TVET systems. The success of TVET systems in producing qualifications that will minimize skills gaps depends largely on collaborations with employers, industry experts, and local communities. Therefore, education and training systems need to be responsive to labor market demands and cannot be viewed in isolation. Figure 9 illustrates a best practice example of a TVET system and the interrelationships that allow it to perform its mandate. In support of the system-level framework this paper proposes it shows how

TVET systems are inextricably linked to, and dependent on quality assurance systems, LMIS, and private sector partnerships to act out their core functions. The value of education and training depends on the quality of its providers, program and course offerings, and relationships with the private sector.

Fig 9 **TVET system**

Source: World Bank, 2021.

Strengthening TVET systems is a central component of effective skills development systems. TVET systems are well positioned to help people transition quickly to the labor market. However, despite their potential to transform stagnant economies, these systems often fall short of expectations, especially in low- and middle-income countries. This is largely due to TVET learners lacking basic literacy skills, unsupported TVET teachers, weak TVET management, a lack of incentives for TVET providers, and the inadequate links between TVET and labor markets. In a joint publication on building better TVET systems, the World Bank, UNESCO, and the ILO list several priority areas that will support the transformation of TVET systems. These include for TVET systems and institutions to be responsive to the needs of their students; prioritizing foundational skills, including digital skills; promoting an integrated ecosystem with flexible pathways between TVET and general education, and WIL; getting the balance right between autonomy and accountability; rewarding TVET reforms with financing and using funding to make TVET more accessible to marginalized groups; and optimizing the use of data and information to inform decisions and actively market TVET offerings.[43]

Education and training systems have a strong reciprocal relationship with the LMIS. Data analytics that draw on LMIS and Education Management Information Systems (EMIS) data play an important role in revealing labor market trends that are particularly relevant for education and training systems, including providing information on WIL participation. By analyzing data on job vacancies, skill shortages, and emerging industry trends, education and training institutions gain insights into the specific skills and competencies in high demand. This information informs curriculum development, enabling the integration of practical, industry-relevant skills into educational programs. It also aids in designing targeted training initiatives, ensuring that learners acquire the necessary expertise to thrive in their chosen fields. LMIS information further facilitates the identification of emerging sectors, enabling institutions to adapt swiftly and offer programs aligned with future job opportunities. This symbiotic relationship between labor market information and education and training provisioning ensures that learners are equipped with the skills sought by employers, fostering greater employability and contributing to a more dynamic and responsive workforce.

In the KSA, the TVTC and HRDF are active participants in moving towards a coordinated skills development system. The HRDF, responsible for ALMP design and implementation, has strong relationships with industry and the TVTC, making it a valuable resource to advance PPPs and lifelong learning initiatives. Similarly, the TVTC has been a committed partner in the development of the skills strategy and recognizes the important role it will play in producing an appropriate workforce for a diversified labor market.

43 World Bank, UNESCO, & ILO, 2023.

2.3 Principle 3

Supply-demand decisions need to be based on accurate and timely information.

Many countries are increasingly producing higher volumes of data about the activities of individuals and businesses, yet few countries actively leverage this information to inform labor market decisions. An LMIS regulates information flow between supply and demand. It captures, analyses, and translates data into information that guides decision-makers to make informed, and evidence-based decisions. Figure 10 illustrates the core functions of LMIS systems. For the most part, LMIS systems are data-driven. Many countries have established statistical services that, at the very least, collect population data through census or labor surveys, or other forms of primary data collection. More sophisticated statistical services would make use of additional data sources, such as individual or business tax records, employment records, social service records, and so forth (see Box 6). The data-driven functions of LMIS systems aim to provide decision-makers with relevant and accurate information to guide the trajectory of the labor market. Service-oriented functions of LMIS systems include additional services mainly targeted at the general public, such as job matching, career counselling, and individualized information on jobs and how to acquire certain positions – often putting the person in touch with relevant education and training opportunities. Ideally, LMIS systems need to integrate the two approaches to benefit decision-makers, researchers, employers, employees, job seekers, and the general public. Box 7 illustrates how some countries are balancing data-driven and service functions of labor market information systems.

Fig 10 **Core functions of an LMIS**

Data-driven LMIS	Services-oriented LMIS
→ Produce general statistics on labor market trends	→ Facilitate job matching
→ Produce publications on key topics	→ Provides career counselling
→ Regional/sectoral dashboards	→ Provides individualized information based on criteria provided by user

Source: Adapted from Sorensen and Mas, 2016.

BOX 6

Good practice example of data integration, Australia

Central to the efficiency and effectiveness of an LMIS is availability of quality data. In Australia, Jobs and Skills Australia (JSA) makes use of several data sources to produce a range of LMIS products and services. These include:

- The Person Level Integrated Data Asset (PLIDA), which is an integrated dataset that combines data from the Australian Bureau of Statistics, Australian Taxation Office, Department of Education, Department of Health and Aged Care, Department of Social Services, Services Australia, and the Department of Home Affairs. PLIDA is coordinated by the Australian Bureau of Statistics. A Person Linkage Spine, situated separately from the main body of data, connects and combines different datasets. This allows the use of merged data for multiple projects and further analyses.
- Workforce Australia, an Australian government-funded network of organizations, is contracted by the Department of Employment and Workplace Relations, to deliver employment services to job seekers and employers. The JSA has access to this administrative data.
- In addition to using externally generated data, the JSA collects primary data through surveys and creates its own databases, mainly through using publicly accessible data gathered through web-scraping algorithms.

Data quality is managed by sophisticated cloud technology suites, such as Microsoft Azure, and data access or sharing agreements are negotiated between JSA and the data owner. Several Acts and policies also guide practices on data governance, processing, management, and privacy.

Access to rich, quality assured data enables the JSA to produce a range of tools, publications, dashboards, and other services.

Sources: Australian Bureau of Statistics: *Person Level Integrated Data Asset (PLIDA) | Australian Bureau of Statistics (abs.gov.au)*; Workforce Australia: *Workforce Australia for individuals*; Jobs and Skills Australia: *Jobs and Skills Australia -- Home*

In a systems-level framework for skills development, an LMIS plays a central role in providing information to all other role-players in the skills system. For the governance structure, the LMIS will produce information and analysis for policymakers and labor market stakeholders to inform the design, implementation, monitoring, and evaluation of policies that are better focused and targeted. It will further allow the monitoring of key economic indicators, such as employability or equitable participation in the labor market. For quality assurance, the LMIS contributes information on occupational standards and skills gaps that inform the development and design of programs and courses. Lastly, the LMIS provides information to the private sector and the public to share trends on vacancies, job/skill shortages, and education and training opportunities.

BOX 7

Balancing data-driven and service functions of LMIS

Countries differ in their approaches to the products and services an LMIS should produce and contextual needs drive these approaches. The two examples below illustrate these contextual differences. The LMIS in Singapore provides a range of data-driven functions, as well as having a strong focus on engaging directly with the public through the SkillsFuture platform. The Australian skills development system is being realigned to meet current and future skill needs. Presently it focuses on producing data-driven functions that contribute to developing a longitudinal skills development roadmap for the country.

	Data-driven functions	Service functions
Singapore	• Labor market research publications. • Dashboards and infographics. • Administering surveys. • Conducting workforce planning.	• SkillsFuture individualized training opportunities (vouchers/sponsorships). • Supporting general and corporate benchmarking by providing tools such as wage comparisons (salaries, salary change, and bonusses), employment conditions comparisons (flexible work arrangements, medical leave, family-friendly leave benefits), and staff turnover comparisons (recruitment, resignation, and job vacancy).
Australia	• Internet Vacancy Index. • Labor Market Insights and Dashboards. • Surveys. • Skills Priority List. • Australian Skills Classification. • Vocational Education and Training Qualification Similarity Analysis. • Jobs and Skills Atlas. • Nowcast of Employment by region and occupation.	

Sources: Manpower, Research and Statistics Department: *https://stats.mom.gov.sg/Pages/homepage.aspx;* Skillsfuture: *https://www.skillsfuture.gov.sg/*; Jobs and Skills Australia: *Jobs and Skills Australia -- Home*

As is presumably the case in many other contexts, different entities in the KSA already perform many of the functions associated with an LMIS. For example, the NLO is in process of repositioning itself as a primary source of labor market information, GASTAT administers regular labor force and other surveys and is developing a national standard classification of occupations, and there are efforts by partner organizations that have access to economic data to produce analytic reports on the labor market and creating integrated labor market databases. In formalizing an LMIS for the KSA, the focus would be on tying these efforts together into a system that is aligned and working towards the same goals.

2.4 Principle 4

Improving quality assurance in skills development systems optimizes the credibility, relevance, and transferability of skills.

Quality assurance in skills development systems ensures that education and training provisioning produces workers with the knowledge, skills, and competencies that meet industry standards. A coordinated quality assurance system requires that all functions related to quality assurance are intentionally considered. Figure 11 illustrates some of these key functions, which can broadly be grouped into i) quality assurance measures aimed at ensuring that education and training providers are recognized and have appropriately trained staff; ii) ensuring the quality of program offerings through accreditation, inclusion of skills standards in program design, and incorporating labor market demands into program and course design; iii) promoting the quality of education and training outcomes by including the private sector in assessment processes, aligning qualifications with NQFs, and monitoring the impact of education and training on employability; iv) ensuring that means to classify, standardize, verify, and authenticate skills are in place through processes such as recognition of prior learning, mapping National Occupational Skills Standards (NOSS), and implementing skill recognition systems to advance skill migration.

Fig 11 **Aspects of quality assurance in skills systems**

Quality and effectiveness of providers	Quality and relevance of programs	Quality of outcomes	Skills classification, standardization, verification, and authentication
→ Licenced and/or accredited institutions/ providers	→ Skills standards included in program design	→ Assessment includes private sector input	→ Job skills classification and standardization
→ Minimum standards for teachers and professional development criteria in place	→ Programs/ courses accredited or recognized	→ Qualification aligned with NQF and/or skills recognized	→ Recognition of prior learning
	→ Inputs from private sector in curriculum and pedagogy	→ Impact of education/ training on employment	→ Skills verification and authentication system for foreign qualifications

Source: Adapted from Comyn, 2015

Quality assurance includes several role players and can take place through external bodies, such as accreditation bodies or private sector partner involvement, or through self-reflection. At both program and quality of outcome levels, SSCs or similar bodies and representatives from PPPs can play an important role in providing inputs to curriculums, pedagogy, assessment practices, and absorption into the labor market through WIL opportunities. Formally, the accreditation of qualifications includes processes to acknowledge that the content, complexity, and volume of learning are appropriate for the type of qualification. Programs and courses within education and training institutions that lead to a formal qualification need to be accredited as a means of standardization. Box 8 illustrates how occupational standards are used to inform job matching and curriculum design.

BOX 8

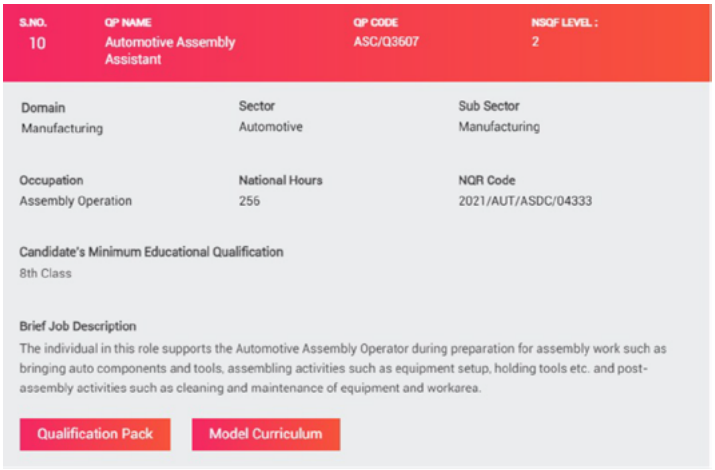
Skill standardization

Standardizing skills, knowledge, and competencies within occupations enable a common understanding of what it takes to do jobs well. It further allows acknowledgement of skills and competencies across borders, as well as informing education and training providers about what the outcomes of courses or programs ought to be.

Two examples of how skills are standardized for public use include the European Skills, Competences, Qualifications and Occupations (ESCO) and the National Occupational Standards and Model Curriculum efforts in India.

ESCO serves to clarify what knowledge and skills are required when working in a specific occupation, what knowledge, skills, and competences should be obtained as a result of a specific qualification, and what qualifications relate to specific occupations. It provides descriptions of over 3,000 occupations, with almost 14,000 skills linked to these occupations, and supports the functions of the European Employment Services, EURES, which is a large-scale job matching service extending across all EU countries.

In India, NOSS are developed per sector and aligned with the National Skills Qualification Framework and National Credit Framework, respectively. Each sector lists relevant jobs, their descriptions, and qualification framework alignment as illustrated below. Each job further has a qualification pack that details the knowledge, competencies, and skills associated with the job, as well as a model curriculum that stipulates how relevant knowledge, skills, and competencies can be developed and assessed.



These examples of skills standardization and its implementation illustrate how the foundational structures of a skills system can support each other in a coordinated system.

Sources: *ESCO: https://esco.ec.europa.eu/en; National Skills Development Corporation, India: https://nsdcindia.org/national-occupational-standards-and-model-curriculum*

▲ MHRSD Archive

In the KSA, ETEC is positioned as the agency that coordinates quality assurance across all education and training efforts and will play a central role in implementing a coordinated quality assurance system. It has developed an NQF and is working with universities to implement the framework. In the skills sector, while the NQF provides space for the inclusion of TVET qualifications, they have not been added yet. However, quality assurance in a skills development system is not necessarily dependent on NQF inclusion. Key functions of ETEC in a skills system would include an initial mapping of all entities providing licensing and/or accreditation of providers, programs, or courses and finding ways of coordinating such efforts, as well as aligning skills verification efforts across entities and the public and private sectors towards a national approach to recognizing skills. ETEC is also in process of developing national standards for Recognition of Prior Learning (RPL). While other entities have started to develop and implement skills verification systems, ETEC ultimately needs to pull together such efforts into a national, coordinated skills verification system. ETEC needs the support of the public and private sector to advance quality assurance in the skills development sector. SSCs will play a central role in supporting ETEC to develop a skills recognition system, including standards for RPL, TVET qualification-levels in the NQF, and moving towards a competency-based system that includes space for micro-credentialing.

2.5 Principle 5

Partnerships between education and training providers and the private sector can rapidly advance skills development.

WIL opportunities are vital to developing a demand-led skills development system. WIL refers to educational programs or initiatives that integrate academic learning with practical work experience. It's designed to provide students with hands-on opportunities to apply theories and concepts learned in the classroom to real-world work environments. WIL can take various forms, such as internships, cooperative programs, apprenticeships, and so forth, allowing students to gain valuable industry-specific skills, insights, and professional networks. This approach prepares students for the demands of their future careers while offering employers access to a talented pool of potential recruits. WIL bridges the gap between academic learning and practical application by immersing learners in real work environments. Through internships, apprenticeships, and cooperative education programs, individuals gain invaluable hands-on experience, honing not just technical skills but also crucial soft skills demanded by employers. Simultaneously, PPPs leverage the expertise and resources of both public and private sectors to design, implement, and sustain effective skills development initiatives. Collaborations between educational institutions and industries ensure that curricula remain aligned with industry needs, fostering a more responsive and adaptable workforce. These partnerships offer a mutual exchange of knowledge, enabling the co-creation of training programs that are dynamic, relevant, and directly applicable to the rapidly changing demands of the job market. Ultimately, the synergy between WIL and PPPs not only enhances employability but also drives innovation, fosters economic growth, and strengthens the overall resilience of skills development systems.

While there are various approaches, such as apprenticeships, internships, or industry placement programs, the success of WIL programs depends on how well they are designed and managed. The following tasks could contribute to the overall quality and success of cooperative and/or WIL programs: i) Form good relationships between institutions, training providers, and industry to facilitate such programs; ii) Have private sector representatives, such as SSCs, facilitate the placement of learners in apprenticeships and internships within industries; iii) Supervise learners in their placements and provide necessary support; iv) Develop organizational WIL/cooperative learning policies and guidelines; v) Maintain program structures that are most appropriate to the type of work the organization undertakes, content, and required learner outcomes; vi) Monitor learner proficiency in tools that the program uses and offer training where necessary; vii) Conduct regular quality assurance on programs and manage relationships with quality assurance bodies; and viii) Have data on internal resource allocation, including staff, financial, and infrastructural resources, as well as comprehensive information about program attendance or participation, processes, and evaluations.

Facilitating PPPs through fostering relationships with the private sector can rapidly increase opportunities for WIL. PPPs take on different forms in response to the needs of those involved. Such relationships serve as catalysts in bolstering skills development systems by fostering collaboration between government entities, education and training providers, and private sector stakeholders. These partnerships bring together the expertise, resources, and perspectives of both sectors, creating a synergistic approach to addressing skill gaps and aligning education with industry needs. By leveraging the insights from businesses and industries, PPPs ensure that training programs are tailored to meet the rapidly evolving demands of the labor market. Table 4 illustrates the range of different PPPs that are commonly implemented in educational contexts. Of particular relevance to skills development systems are capacity-building programs, government purchasing programs, and incentivized vocational education and training. Boxes 9 and 10 provide examples of these PPPs.

Table 4 **Types of PPPs used in education**

Type of PPP	Description
Adopt-an-institution programs	**Private sector partners provide support to government funding of institutions**. The aim is to ensure improvement of quality, access, infrastructure, and community participation.
Private sector philanthropy	Mainly aimed at supporting **corporate sector philanthropy** to help the poor to gain access to good quality, effective education.
Capacity-building programs	**Private sector partners support public training institutions in a number of areas**, including curricular and pedagogical, managerial and administrative training, textbook provision, teacher training, and quality assurance.
Sub-contracting of institutional management	**Institutions are privately managed, but publicly owned and funded**. Often, there is a management contract that details the partnership, such as performance targets, accountabilities, timelines, and arbitration procedures.
Government purchasing programs	**Government contracts private institutions to deliver education at public expense**, often in the form of a subsidy per student enrolled in an accredited or eligible private institution.
Incentivizing vocational education and training	**Government funding so that students can attend educational institutions**. Incentives can take the form of coupons, bursaries, or loans.
Institutional infrastructure partnerships	**The government leases a facility that has been financed, built and operated by a private operator, while the government retains its responsibility for education provision**.

BOX 9

PPPs in skills systems

Capacity-building programs: Techwise Twente, Netherlands

- Techwise Twente is a regional cooperative that facilitates demand-driven courses in the Netherlands.
- It brings together representatives from education and training, business organizations, and companies.
- It facilitates needs-based discussions in the fields of electrical engineering, Information Technology, mechatronics, metalworking, and mechanical engineering.
- It further facilitates the use of Skills Labs, provides an online platform for companies to reach students and potential workers, and supports teacher development.

Incentivizing vocational education and training:
Training Cheques (Cheque-Formação) in Portugal

- This initiative aims to reinforce the quality and speed of implementation of ALMPs.
- It targets job seekers and employees by providing funding tokens or 'training cheques' that allow a maximum duration of 50 hours of training per person for a two-year period.
- The financial support does not exceed 90% of the total value of the training and the government pays back the users for the proven paid training they took.
- For unemployed persons, the maximum duration of training hours over a two-year period is extended to 150 hours, and they are entitled to financial support corresponding to the total value of the training action.

Bildungsgutschein, or training vouchers in Germany

- This initiative targets employees who might face the possibility of unemployment, unemployed persons who wish to re-enter the job market, and persons requiring further training or retraining in the absence of a relevant vocational qualification.
- There are no specific funding limits and sponsorship is based on individual assessments by an advisor.
- Applicants make a case for the skills development program, course or qualification they wish to pursue and select courses from an online database of over 400,000 courses that can be taken from a range of public and private vocational institutions, as well as online offerings.
- Successful applicants receive a token or voucher from the job center, which they provide to the relevant educational institution as payment.

Incentivizing enterprises to engage with Vocational Education and Training
Funding scheme for companies offering apprenticeship posts: Austria

- Different forms of funding are available to companies offering apprenticeships in Austria, including:
  - *Basic support*. The training company can apply for basic support at the end of the respective apprenticeship year.
  - *Training alliances and additional vocational courses*. Subsidies also cover inter-company and supra-company offerings, as well as the acquisition of competences that might be acquired beyond the in-company curriculum.
  - *Apprenticeship for adults*. Training of adults (18+) is funded if they are paid as unskilled workers, i.e. more than an apprenticeship income.
  - Companies where apprentices pass the apprenticeship-leaving exam with good results or distinction can also apply for grants to further support training efforts.

Sources: Techwise Twente - connects technical talent with the future ; What Is A Bildungsgutschein? Everything You Need To Know (careerfoundry.com) ; Cheque-Formação - IEFP, I.P. ; Vocational education and training in Europe | Austria | CEDEFOP (europa.eu)

BOX 10

The Saudi Petroleum Services Polytechnic (SPSP) as a best practice example of a PPP

A good example of an established PPP in the KSA is the SPSP, which was established in 2008 as a partnership between the Ministry of Energy, Industry and Mineral Resources, the TVTC, Saudi Arabian Chevron, Saudi Aramco, and Aramco Gulf Operations, and supported by the Human Resources Development Fund. Currently, the SPSP is a fully independent non-profit entity that aims to prepare a highly qualified Saudi technical workforce that will serve the needs of the energy sector and lessen the reliance on external expertise.

The SPSP offers a range of 14 internationally accredited training programs to meet the needs of the oil and gas industry and has produced over 10,000 graduates to enter the job market since its inception. In 2022 alone, the SPSP graduated 1,400 trainees sponsored by 32 energy companies, who subsequently joined the local workforce.

The collaborative partnership has established several training centers offering a range of qualifications, including short courses, certification courses, diploma courses, and customized and advanced training programs to support the requirements of potential and existing company employees. Once accepted, training courses are free of charge and all trainees are placed with companies. The SPSP has a 100% placement rate.

The SPSP model is replicable in sectors beyond the petroleum industry and could be used to advance strategic areas of specialty.

Source: *https://www.spsp.edu.sa/*

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Developing system-level skills strategies in other contexts: A way forward

Comprehensive skills development systems could make a significant impact in advancing labor force participation, aligning skill supply and demand, ensuring skill relevancy and quality, and easing skills transfer. While many countries have some form of a skills development system, or elements thereof in place, there are very few examples of well-coordinated skills development systems that are intentionally developing the foundational structures necessary to coordinate systems. For this reason, the G20 forum's and OECD's work supporting the development of skills strategies is emphasizing the importance of good governance structures to support skills development systems. While this paper concurs with the emphasis on good governance, it makes the case for a systemic-level approach for optimal functioning of skills development systems. This implies that the foundational sub-systems, structures, or principles need to be in place and operational to contribute to the broader skills system. These include political will and a supportive economic environment to support skills development, a good governance structure, agreement on a demand-led approach to skills development, a reliable and comprehensive LMIS that serve

multiple stakeholders, a rigorous quality assurance system that allows for skills to be recognized nationally and internationally where relevant, and a responsive education and training system that partners with industry to develop in-demand skills and produces a sustainable workforce.

Although skills systems are, and should be contextually relevant, the collaborative efforts between the World Bank and the MHRSD in the KSA provide a roadmap to developing a generic, system-based approach to skills development that can be replicated as most countries have the underlying structures in place. The skills development context in the KSA is not unique. Many other countries recognize the value of investing in skills strategies[44] and the majority, if not all of the countries investing in skills strategies have at least some skill development systems in place, or at the very least, a TVET system. A common challenge seems to be a lack of coordination between existing efforts, which are often based in different ministries, or hampered by poor relationships between public and private sectors. This paper attempted to share some lessons from the KSA and other contexts on how to navigate some of these challenges.

Based on the lessons learnt from the KSA context, the following steps could facilitate the development of a system-level skills strategy:

1. Identify a unit within a ministry or inter-ministerial unit to drive the process of developing a skills strategy.

This unit is responsible for supporting the conceptualization of the strategy and facilitating buy-in from all stakeholders. In the KSA, representatives from the MHRSD were identified to work closely with the World Bank team to drive the development of the skills strategy. This team coordinated consultation sessions with a range of stakeholders and presented the drafts of the skills strategy to stakeholders to receive feedback and generate buy-in. The coordinating team further supports each of the components of the skills system to prepare for implementation of the skills strategy, including reviewing funding sources to support the sustainability of a coordinated skills system. In the KSA, there are three sources of funding for human capital and skilling:

- **Budget Transfer:** Where the Ministry of Finance allocates some funds to the ministry that oversees a particular sector. This budget is normally part of bigger budget to develop relevant sector growth.
- **Vision Programs:** This includes the HCDP and National Transformation Program (NTP), both of which have substantial funding requirements toward training and skilling. However, these programs are meant to be for a specific period and are considered temporary interventions that are not institutionalized for the long term.

While many countries have some form of a skills development system, or elements thereof in place, there are very few examples of well-coordinated skills development systems that are intentionally developing the foundational structures necessary to coordinate systems.

44 E.g., see *https://www.oecd.org/skills/oecd-skills-strategies.htm*

- **Expat Levy:** This levy is collected from private sector firms on expatriate employees. Part of this income is directed to the HRDF, but the fund mainly focuses on a sub-segment of the market (new entrants) part wage subsidy, and part training subsidy. Wider segments, such as current employees or adults in general, are not currently covered.

The Skills and Training Deputyship, established by the MHRSD to drive the skills strategy work, reflected throughout the process on how existing funding sources could be re-envisioned to support a more targeted and coordinated skills development system.

2. Be familiar with, and align, skills strategy planning with strategic priorities.

While skills development is important, there are many other strategically important matters competing for political and financial favor. When planning a skills strategy, the focus and outcomes of the strategy need to complement and support other strategic priorities. In the KSA, Vision 2030 and the resulting HCDP, as well as the National Labor Market Strategy, all have a strong focus on empowering citizens with skills to diversify the economy and create globally competitive citizens. Part of obtaining buy-in for the skills strategy was to illustrate how the skills strategy and its proposed initiatives align with existing priorities, projects, and initiatives. Ultimately, the skills strategy has been translated into a National Skills System Framework (as shown in Figure 4) and included as a core driver of the MHRSD's Labor Market Strategy, thereby formalizing its inclusion in national economic development priorities.

3. Identify the status of skills development and conduct a baseline analysis of what the challenges are.

A strong evidence-based start to the planning of a skills strategy will allow targeted focus and will guide the planning and tracking of indicators as part of monitoring and evaluating implementation of the strategy. Through the MHRSD task team, the World Bank team was able to collaborate with different stakeholders to collect information on existing initiatives and/or conduct analyses to determine baseline information to build on. For example, an analysis of TVTC graduates showed that there is a mismatch between the fields students graduate in and the labor market fields they are absorbed in. Such information is vital to guide the focus of skills strategies. Another key challenge that shaped the focus of the skills strategy in the KSA is a lack of coordination across ministries and/or skills development efforts, which ultimately contributed to the emphasis on a strong governance structure in the skills strategy. Such open and transparent reflections about the gaps in the skills system are often not easy, but is an essential part of planning the strategy's areas of focus, and the sequence in which interventions need to take place. For example, establishing SSCs was identified as a priority task that will inform or enable several other initiatives, such as the need to strengthen private sector involvement in skills development. As such, 12 SSCs were established as one of the first steps to implement the strategy.

4. Determine what foundational structures are in place and what would need to be developed.

Deciding on a governance structure, as discussed earlier, is an important starting point as it will determine the organization of the skills system. Most countries have some form of existing structures or systems in place to regulate the quality of qualifications, provide key labor market information, partner with the private sector, and implement ALMPs to support skills development. A robust analysis of existing systems and structures, their governance structures, and how they compare to international best practice in terms of focus and outputs is necessary to determine the focus of the skills strategy. The KSA has an established education and training system, of which TVET is mainly coordinated by TVTC. In addition, while the KSA has an established quality assurance agency and qualifications framework, the baseline analysis identified the need for better coordination of the quality sub-system, as well as drafting skills standards and including such standards in the qualifications framework. In terms of an LMIS, the skills strategy has enabled the strategic repositioning of the NLO, which is currently underway. Lastly, baseline analysis of the KSA context stressed the need to include more emphasis on private sector involvement to stimulate a demand-driven skills system. Establishing SSCs in key sectors was identified as an important task to facilitate public-private relationships in skills development. This in-depth analysis formed the basis of the first draft of the skills strategy.

5. Engage with existing structures to identify challenges and needs, as well as to get buy-in for a coordinated system.

Developing a coordinated and system-level skills strategy is not a solo endeavor. All stakeholders need to be consulted and have to take ownership of the skills strategy and the impact its implementation will pursue. In the KSA, there was an initial lack of buy-in from some stakeholders when the strategy was first presented. This was arguably because of a rapid increase in reform initiatives brought on by Vision2030 and the HCDP in recent years. The HCDP, in particular, has a strong focus on capacity development, including skills development at different educational levels. In addition, skills development has been prioritized elsewhere, such as in the Labor Market Strategy and as part of the Ministry of Education's priority focus areas. Together with the World Bank team, the MHRSD worked collaboratively and transparently with stakeholders, including those overseeing key sub-systems, such as TVTC, MoE, and ETEC, to explain how the skills strategy will complement existing skill development initiatives by focusing on establishing a coordinated system of foundational structures. This ultimately secured buy-in and engagement from all stakeholders.

Developing a coordinated and system-level skills strategy is not a solo endeavor. All stakeholders need to be consulted and have to take ownership of the skills strategy and the impact its implementation will pursue.

6. Identify whether a national, regional, or sectoral focus would make the biggest impact towards a comprehensive, coordinated system.

Countries differ greatly in terms of how industries, regions, and sectors contribute to economic productivity. This contextual consideration needs to be included when planning a skills strategy. For example, the oil and gas industry has dominated the KSA's economy for many years, which is one of the key contributing factors for the need to diversify the economy and the skilled workforce. There has also been a rapid expansion of the tourism and retail sectors in recent years, thereby opening up many opportunities to invest in expanding these sectors. An appropriate analysis of industry, sectoral, and regional trends mapped against national strategic goals will guide the focus of the skills strategy.

7. Draft a skills strategy and consult widely.

Several drafts of the skills strategy were shared for inputs, presented by the MHRSD team, and adjusted according to the feedback provided. This method ensured that stakeholders are aware of the strategic importance of the skills strategy, and enabled all to actively participate in shaping the focus of the strategy. Another important aspect is that the work does not end when the strategy has been finalized. Once accepted and approved, the coordinating task team or unit has to oversee gradual implementation. This stage might take some time, especially when determining the detail of how each system/structure should look, what their mandate should be, and how the strategic or conceptual idea of systems or structures will manifest in practice. The latter is a common challenge – where policies fail to translate into practice because of a lack of capability to implement strategic goals. Developing the skills strategy collaboratively with stakeholders who will be responsible for implementation afford opportunity to provide inputs into the practicality of strategic initiatives which could prevent this challenge. At this point, the consultation process might turn outward to learn from best practices in other contexts. For example, in response to the skills strategy, the NLO, in collaboration with the World Bank team, has engaged with at least five countries to learn from and develop a suitable LMIS for the KSA context.

8. Ensure that monitoring and evaluation mechanisms are in place and that robust evidence is gathered to support implementation of the strategy.

Another common challenge that prevents policy goals manifesting in practice is a lack of accountability for implementing policies. Having clear and rigorous monitoring and evaluation systems in place to oversee the process of implementation and provide feedback on the outcomes and impact of initiatives will add credibility to the strategy and its interventions. In the KSA, the skills strategy has clear indicators to measure progress. It has also committed to implement several large-scale surveys, administered in collaboration with the World Bank to better understand factors surrounding the implementation of the skills strategy.

Conclusion

A system-level approach to skills development allows countries to take stock of what foundational components they have in place, reflect on the maturity and quality of the foundational components, and determine to what extent the foundational components are coordinated to work towards skills development. Developing skills strategies is one way to coordinate skills development efforts, and is particularly useful when most sub-systems are already in place and well-functioning, albeit in a fragmented way. Thus, while the argument for a systems-level approach stands, we have to recognize that there are certain contextual tradeoffs that will influence the focus and shape of skills development systems. For example, one question that skills strategies need to grapple with is whether to focus on addressing the current pressing skills needs (i.e. those of more established but likely lower productivity sectors) or the skills demands of emerging or future private sector, which may have higher value added but might not yet have the critical mass or capacity to fast-track development. That said, a comprehensive skills strategy will likely make space for both scenarios and ensure appropriate resource allocation for well-established sectors, as well as investing in developing new economic avenues.

Developing skills strategies is one way to coordinate skills development efforts, and is particularly useful when most sub-systems are already in place and well-functioning, albeit in a fragmented way.

A second consideration is the relevance of a systems-level framework in differing country contexts, particularly in contexts where implementation capacity is limited, where there might be political infighting, or in situations where sub-systems are not optimally functional. In such cases, a well elaborated skills strategy will have little chance of getting implemented with fidelity. In such contexts, focusing on quick wins and market-based solutions, such as improving information that can be accessed by end users, could be more impactful in the short term, while implementation capacity and trust between stakeholders is built.

Ultimately, the need for intentional and coordinated skills development efforts is clear when revisiting global trends, such as technological advancements, climate change, and social changes and inequities, all of which demand attention. In the KSA context, the main drivers towards a coordinated skills development system include the country's commitment to diversify its economy, advance innovations in key sectors, and capacitate its citizens with relevant and global skills. While the reasons for pursuing skills development might differ between contexts, the essence of a system-level approach remains the same – to coordinate efforts between role players toward common goals.

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