



International
Labour
Organization

► Skills for Productivity, Environment and Economic Diversification (SPEED)

GUIDANCE NOTE



► What is SPEED?

The Skills for Productivity, Environment, and Economic Diversification (SPEED) methodology represents an evolution of the established, [Skills for Trade and Economic Diversification \(STED\) initiative](#) developed by ILO and designed to address certain basic realities of today's economic landscape. It represents an integrated sectoral approach to the anticipation of skills needs and development of the needed skills, supporting sectoral development and productivity enhancement while promoting economic diversification in the context of green transition. It provides a systematic framework for analysing current and future skills needs, identifying system-wide challenges while facilitating a just transition towards environmentally sustainable societies and economies for all.¹ It also assists in formulating and embedding skills policies into industrial development processes and climate and environmental policies. In addition, it contributes to the operationalization of the ILO mandate and international standards on skills and lifelong learning (see box 1).

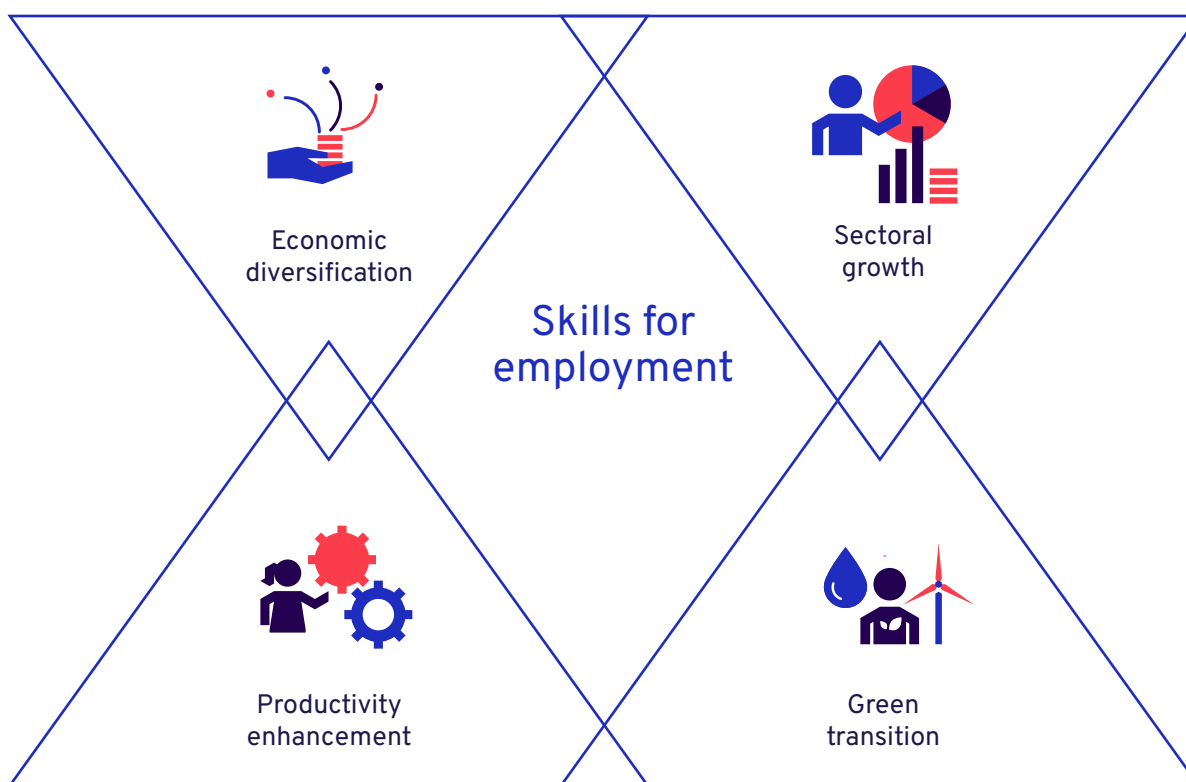
Box 1. ILO mandate and international standards that guide skills and lifelong learning

The ILO mandate for skills, training and lifelong learning is based on its Constitution, and has been set out in various international labour standards. The SPEED approach contributes to the implementation of several key Conventions and Recommendations, such as the Discrimination (Employment and Occupation) Convention, 1958 (No. 111), the Paid Educational Leave Convention, 1974 (No. 140), the Human Resources Development Convention, 1975 (No. 142), the Occupational Safety and Health Convention, 1981 (No. 155), the Human Resources Development Recommendation, 2004 (No. 195) and the Quality Apprenticeships Recommendation, 2023 (No. 208), and also such key instruments as the ILO Declaration on Social Justice for a Fair Globalization (2008) and the ILO strategy on skills and lifelong learning 2030.

The original STED methodology, which has been successfully implemented in over 70 sectors across more than 30 countries, focuses primarily on export-oriented sectors. Experience has shown, however, that the effective anticipation of skills needs is crucial to every sector of the economy. The interconnected nature of global value chains means that megatrends such as technological change, trade, and climate and environmental issues affect every part of the economy, making strategic skills planning a universal necessity.

¹ “Just transition” means promoting a green economy in a way that is as fair and inclusive as possible for everyone concerned – workers, enterprises and communities – by creating decent work opportunities and leaving no one behind. The concept is grounded in the [2023 ILC Resolution and Conclusion concerning a just transition](#) towards environmentally sustainable economies and societies for all, which was adopted by the International Labour Conference at its 111th session. The Conference endorsed the [Just Transition Guidelines](#) as the central reference for policymaking and a basis for action on just transition.

Figure 1. Skills for productivity, environment and economic diversification (SPEED)



The ILO SPEED approach seeks to maximize the local employment impact of the green transition by identifying and addressing critical skills challenges and opportunities. The objectives of SPEED include supporting efforts by target sectors to:



anticipate and address the skills implications of the climate mitigation, adaptation measures, and broader environmental sustainability efforts;



formulate sector-specific skills recommendations that support both domestic and export-oriented growth;



develop a sector skills strategy informed by diagnostic analysis and recommendations and based on stakeholders' needs and consensus;



foster productivity and diversified economic structure through strategic skills investments that deliver economic, environmental and social benefits.

The present guidance note sets out a systematic approach to analysing interconnected challenges and designing effective responses. Maintaining the analytical rigour of the original STED methodology, it focuses on specific sectors, with the aim of enabling them to meet environmental sustainability requirements, while simultaneously strengthening the capabilities needed for improved productivity and economic diversification, benefiting both businesses and individuals. This adaptable methodology can be applied to any economic sector or subsector, regardless of its trade orientation.

The diagnostic process within SPEED involves a combination of research, policy analysis, social dialogue, collaboration between stakeholders and policy formation. The research component includes both desk reviews and the collection of relevant data, as well as consultations with national and sectoral stakeholders. Central to this process are three key steps: identifying and anticipating skills needs and system-wide challenges within a target sector, evaluating the capabilities of existing education and training providers to meet emerging sectoral demands, and formulating comprehensive recommendations on skills for the targeted sectors.

The outcome of the SPEED diagnostic process is a skills diagnostic assessment, accompanied by a set of recommendations at the policy, institutional, and enterprise levels. These priority recommendations aim to bridge skills gaps and needs, address system-level issues and support the sector's contribution to a just transition towards environmentally sustainable societies and economies for all. The process involved in designing these recommendations contributes to raising awareness, building ownership, stimulating social dialogue and promoting consensus on priority skills development among key stakeholders within a sector. The skills diagnostic assessment and resulting recommendations can serve as a foundation for the development of a sectoral skills strategy if stakeholders choose to develop such a strategy through further consultations.

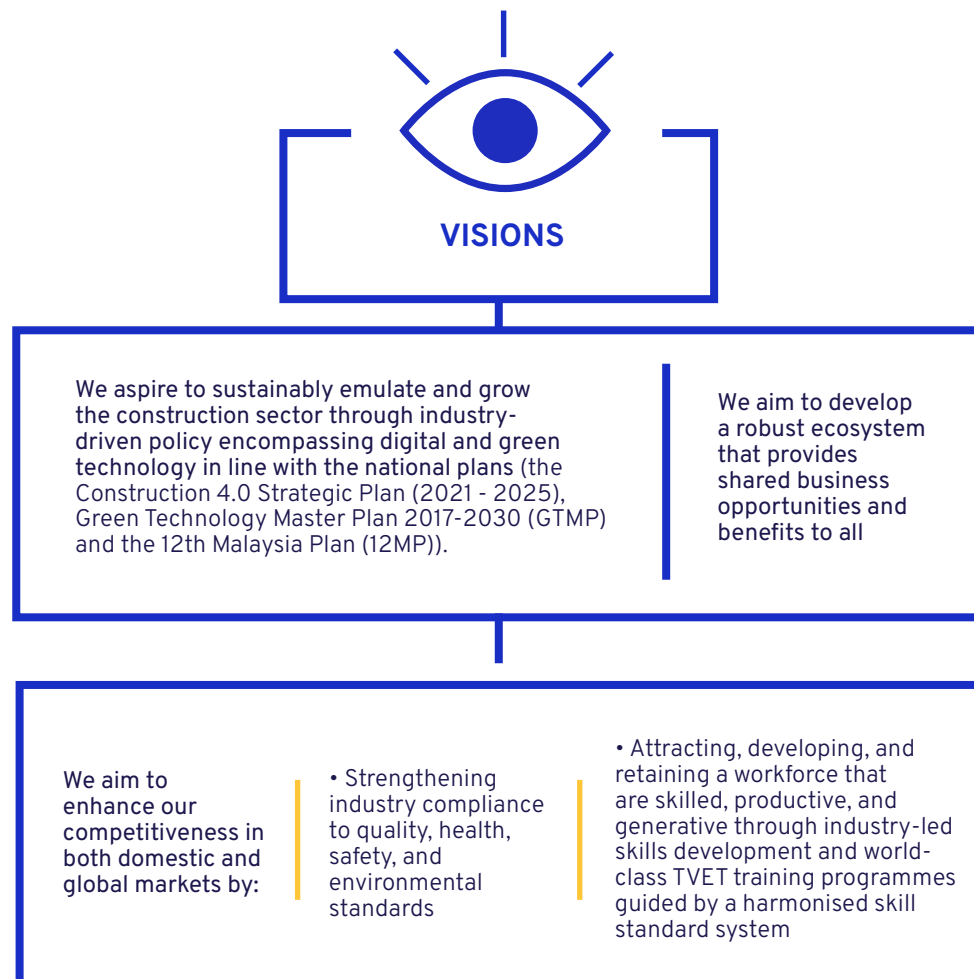
Where the implementation of SPEED is concerned, the stakeholders prioritize a set of recommendations for immediate actions, mobilize the necessary resources and translate these into practical measures. Stakeholders identify the most urgent actions needed to accelerate progress toward greater productivity and competitiveness in the green transition. The focus is on fostering a resilient and diversified economy, creating more and better jobs, enabling workers to acquire the competencies required for quality employment and giving firms access to a skilled workforce.

Box 2 illustrates how stakeholders can come together to develop a shared vision and joint skills strategy, which then guides implementation efforts.



Box 2. Shared vision and joint skills strategy development for the Sustainable Growth of Malaysia's Construction Sector

As part of the ILO UK-funded Skills for Prosperity Programme in Malaysia (SfP-Malaysia), a sector skills strategy for the construction sector was developed using the ILO's Skills for Trade and Economic Diversification (STED) methodology. While the SPEED methodology was not applied at that time, key stakeholders recognized the growing momentum of green construction, driven by increasing awareness of sustainability and environmentally friendly practices to address climate change. This led to an emphasis on greening the construction sector through alignment with skills development initiatives, which is particularly evident in the vision jointly developed by the key stakeholders during the STED process (see below).



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To realize the vision of sustainable growth through the integration of digital and green technologies while enhancing workforce competitiveness, several key gaps were identified. The slow adoption of green technologies remains a challenge, in particular among small and medium enterprises (SMEs). While the Government promotes the use of high-end technologies, such as building information modelling (BIM) software and the industrialized building system (IBS), many SMEs face financial constraints that hinder their transition and require support in the form of training for their workers. Furthermore, the importance was stressed of adapting feasible technologies for the processes involved in wet trades, such as bricklaying, plastering and painting. There is also a rising demand for green construction skills, with such roles as site health and safety officers and environmental compliance specialists becoming increasingly essential. In addition, financial constraints pose a significant barrier as, without enhanced tax incentives, subsidies, or financial assistance, many local contractors struggle to invest in sustainable construction practices.

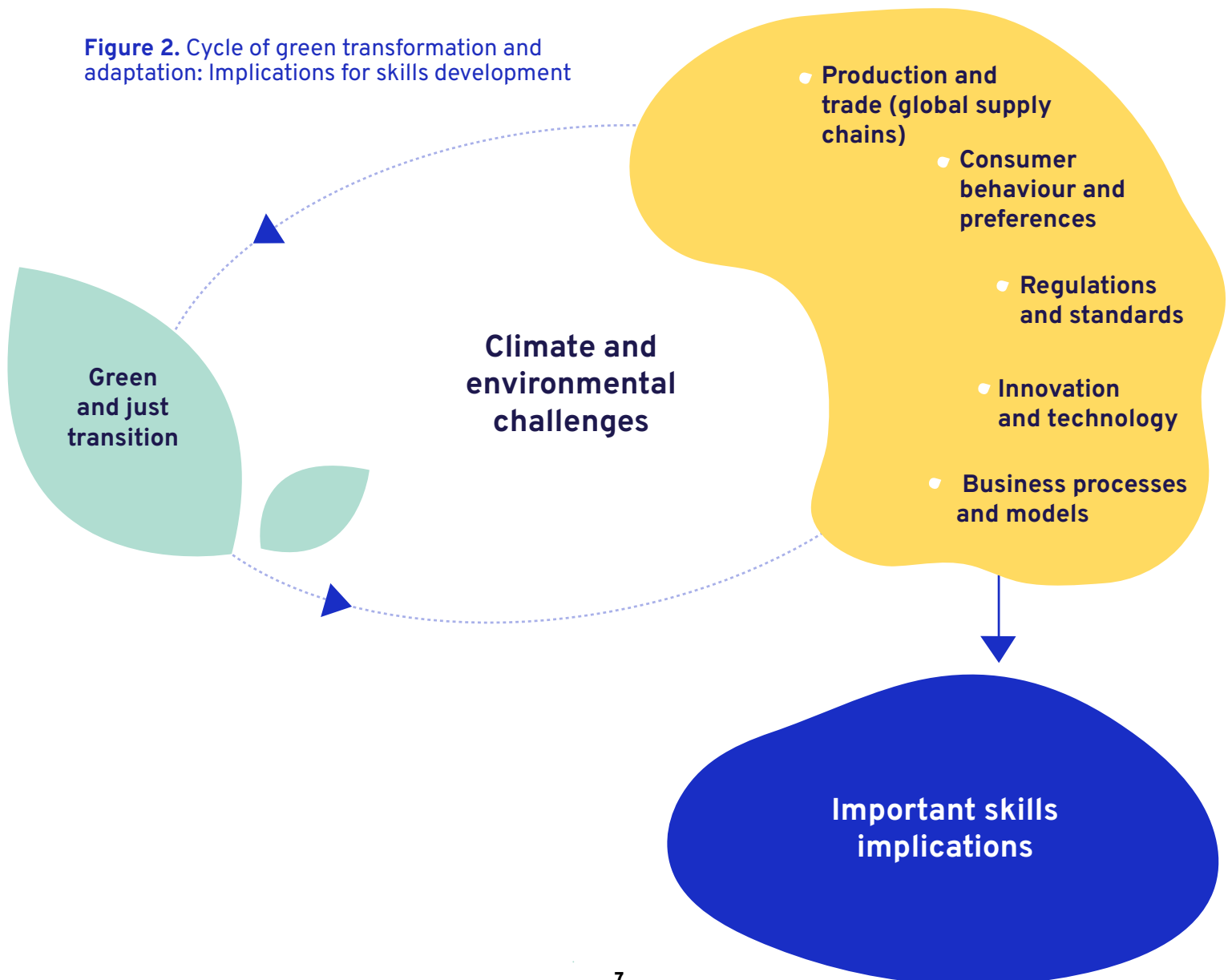
To address the identified challenges, under the leadership of the Master Builders Association Malaysia (MBAM), several steps have been taken towards advancing green construction and digitalization in the industry. The MBAM is driving sustainability through advocacy and policy support, working with key stakeholders to promote green building policies, certification and regulatory improvements. It champions sustainable construction by encouraging low-carbon materials, the use of IBS and renewable energy adoption, while also enhancing industry capacity through training programmes and conferences on green construction practices. At the same time, digitalization is being accelerated by promoting the use of BIM for better project coordination, advocating smart construction technologies such as artificial intelligence (AI), the internet of things and robotics, and fostering the development of energy-efficient smart buildings and predictive maintenance. Through these efforts, Malaysia's construction sector is striving to build a more sustainable, environment-friendly and technology-driven future.

Source: Adapted from the 2022 sector skills strategy for the construction sector in Malaysia (internal document) and based on evidence gathered during the follow-up exercise.

► Why do skills matter for the green transition?

Skills development is essential for facilitating a just transition towards environmentally sustainable economies and societies for all, especially in the context of the triple planetary crisis of climate change, biodiversity loss and pollution, alongside interconnected challenges such as desertification, rising sea levels and soil degradation. These crises require a transformative shift in business practices, supply chains, consumption patterns, regulations and labour markets, and this shift can only be achieved by equipping the current and future workforce with the necessary skills to drive and adapt to environmentally sustainable practices.

Figure 2. Cycle of green transformation and adaptation: Implications for skills development



A close-up photograph of a person's hand pouring a stream of golden, oval-shaped grains (possibly millet or sorghum) from a woven basket. The grains are captured mid-air, creating a dynamic, cascading effect against a clear blue sky. The person's arm and part of their face are visible on the right side of the frame.

The framework demonstrates how climate and environmental challenges serve as a catalyst for change, causing a continuous cycle of transformation and adaptation across multiple sectors. The process unfolds through channels such as technology, trade and global value chains, regulations and standards, consumer behaviour and business practices. These interconnected changes create a growing demand for new skill sets and competencies in the workforce to keep pace with the evolving needs of industries.

A just transition towards decarbonized and resource-efficient economies and societies will have a profound impact on the labour market, creating new jobs, causing some job losses and changing the skills composition of many jobs. The green transition is not, however, transforming the world of work in isolation but acting in concert with other global megatrends, such as technological change and digitalization, demographic shifts and global trade. Skills play a twofold role, serving as both an enabler for growth and a buffer against the negative impacts of climate and environmental change and other global crises.

The availability of relevant skills will be conducive to economic growth, supporting employment and enterprise policies, and industrial and structural transformation. Skills attract investments and help the greening of businesses and deployment of new technologies, including clean and digital technologies. Such measures, in turn, boost productivity, including in micro, small and medium-sized enterprises (MSMEs), and enhance job growth. At the same time, skills development plays an important role in levelling the playing field in the green transition. Access to training for greener jobs will facilitate an inclusive and just transition and foster the employability of workers and adaptability of enterprises. Training that targets women, young people and disadvantaged groups (such as migrants, persons with disabilities, or people in rural or informal economies) will support their eventual uptake of green jobs. Widening opportunities for reskilling is also key to providing alternative livelihoods for those in climate-vulnerable areas and decreasing the chances of forced displacement.

At the same time, ensuring the availability of relevant skills and access to training will require substantial investment in education and training systems. This includes preparing workers for the new jobs that emerge from the green transition, as well as providing reskilling and upskilling opportunities that will help workers from declining industries to transition smoothly into growing sectors. It is critical that skills policies and measures are embedded in industrial, employment and environmental policies to ensure that they are not perceived as a mere afterthought or a reactive solution to existing problems. This will require coherent policies and policy coordination with social dialogue, the effective anticipation of skills needs and matching mechanisms, relevant and good quality training delivery, sufficient financial allocations and incentives, adequate investment in necessary training infrastructure, human resources and capacity, and targeted measures to ensure inclusive opportunities for skills development.

► How is SPEED applied?

The SPEED approach comprises four successive phases and a fifth component which spans all the phases. In addition, it may include the optional development of a sectoral skills strategy.

Figure 3. SPEED process



1. Start-up phase:

this includes a technical assessment of the priority sectors and subsectors and a selection of sectors based on the criteria for SPEED sector prioritization, ensuring alignment with national climate and environment commitments and strategies in such areas as nationally determined contributions and national adaptation plans.

2. Diagnostic phase:

this involves a combination of research, technical analysis, collaborative work with and among partners, synthesis, development of conclusions and recommendations, validation of results and planning for implementation.

There are two ways in which diagnostics can be conducted. The rapid SPEED approach gathers and presents readily available information and data, which can be supplemented with additional focus group discussions or in-depth interviews if needed. The full SPEED process adds an enterprise skills survey and a skills supply study. The choice between the two approaches depends on data availability, the needs of key stakeholders and available resources.

In the diagnostic phase, a technical and policy foresight workshop is convened with senior representatives from firms, sector experts, social partners, education and training providers, environmental non-governmental organizations, and relevant government ministries and agencies, including environmental agencies. This workshop plays a central role in filling information gaps, validating the analysis, building consensus and developing strategic recommendations for the development of the sector and meeting of skills needs.

3. Strategy development phase:

this can be incorporated in the SPEED process when sector stakeholders aim to develop a comprehensive sector skills strategy. This phase builds upon the skills needs assessment and a set of specific recommendations – at the policy, institutional and enterprise levels – developed during the diagnostic phase and further refined through consultations and social dialogue. A stakeholder workshop is convened to develop a road map and action plan for implementing the skills strategy recommendations.

4. Implementation phase:

this involves working directly with national and sector partners on implementing a subset of the recommendations.

Project governance, capacity-building, social dialogue and institutionalization:

this is a cross-cutting component which spans all the phases. Its goal is to ensure that each phase – from sector selection, analysis and strategy development to implementation – is owned and governed by national and sectoral partners. This component aims to foster a collaborative environment in which stakeholders can effectively contribute to and benefit from the process. By integrating governance structures, enhancing capacities, promoting social dialogue and institutionalizing practices, it supports the creation of a robust skills system.

This component ensures effective coordination, fosters the continuing development of skills anticipation capabilities and embeds the process within existing institutional mechanisms, involving private sector stakeholders (employers and workers) and other key entities.

It aims to raise awareness among and build the capacity of partners to address climate and environmental challenges in ways that are conducive to sustainable growth, create decent jobs and advance social justice. Strengthening these institutional mechanisms and reinforcing social dialogue are measures critical to ensuring ownership, maintaining the relevance and feasibility of proposed actions and promoting stronger alignment among partners.

A good example of a phased approach with strong ownership of stakeholders is described in box 3.

**Box 3. Holistic and phased approach with strong stakeholder ownership:
Zimbabwe's Green enterPRIZE Innovation and Development project**

This project, jointly funded by the ILO and the Swedish International Development Corporation Agency, advanced the development of sustainable enterprises and expanded access to green job skills, focusing on climate-smart agriculture and renewable energy to drive market growth and employment. Strong stakeholder ownership played a key role in this endeavour, which benefited from the leadership of an interministerial task force, the engagement of technical, vocational, education and training (TVET) institutions, industry representatives, SMEs, social partners and technical experts.

The programme followed a phased approach:

Phase 1 (2017–18): Assessment of supply and demand of skills for green jobs, which identified a need to focus on the climate-smart agriculture and renewable energy sectors;

Phase 2 (2018–19): Assessment of the capacity of TVET institutions, which built a network of 30 institutions to offer the necessary training and identified the challenges that they might face;

Phase 3 (2019–20): Curriculum development and validation, in which industry experts, and TVET and academic professionals worked together to develop five new curricula, for the following professional skills: biogas system installer; climate-smart market gardener; solar agricultural processor; solar photovoltaics installation and maintenance mechanic; and solar sales and marketing agent;

Phase 4 (2020–21): Launch and piloting, which included the running of training-of-trainers workshops for 60 instructors and industry experts from TVET institutions and other community-based organizations, to enhance their capacity to write training manuals, deliver work-based learning and allocate resources to support the pilot phase. Guidelines for gender integration and gender sensitivity have also been provided;

Phase 5 (2021 onwards): Implementation, the project's roll-out stage, during which action plans were implemented at the TVET level with the goal of reaching 2,000 students nationwide. The programmes are open to students at any level of education.

The programme also fostered partnerships between training providers and SMEs to pilot innovative work-based learning in agriculture and the renewable energy sector.

Source: Adapted from ILO, [Greening TVET and skills development: A practical guidance tool](#), 2022.

► SPEED

start-up phase: sector selection criteria

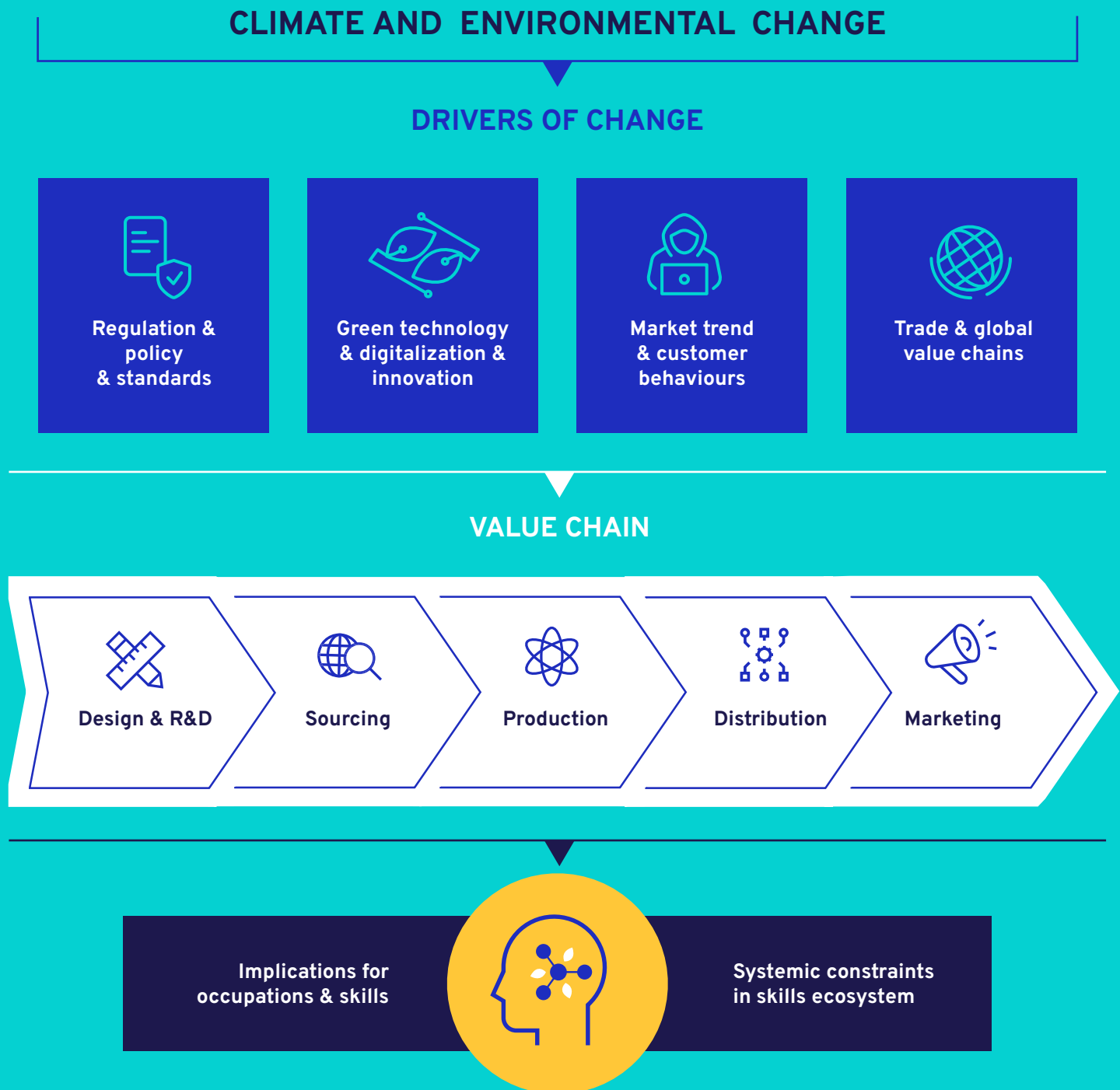
The selection of priority sectors is a foundational step in the SPEED process, setting the direction for subsequent analysis and the formulation of recommendations. The sector selection process should be guided by clear criteria to ensure relevance, alignment with national priorities and potential for impact. The main SPEED criteria to be applied in prioritizing certain sectors are the following:

- ▶ alignment with climate and environmental policies: sectors significantly affected by climate mitigation and adaptation measures and other environmental policies and regulations, such as nationally determined contributions (NDCs), national adaptation plans (NAPs) and other national relevant policy instruments;
- ▶ strategic policy relevance: sectors prioritized in national economic development plans, economic diversification and industrial strategies;
- ▶ exposure to disruptive trends: sectors facing structural transformations due to other disruptive challenges, such as technological change, digitalization and trade dynamics;
- ▶ potential for skills to enhance sector performance: sectors in which targeted skills development can significantly enhance productivity, competitiveness and sustainable business practices;
- ▶ employment potential and quality of jobs: sectors with the potential to improve green business performance to increase employment, in terms of both quantity and quality;
- ▶ just transition considerations: sectors with strong potential to promote social inclusion and support a just transition, in which skills development can improve access to quality employment – in particular for women, young people, migrants, refugees, workers at risk of job losses due to the green transition and other vulnerable groups;
- ▶ ownership and engagement of partners: sectors in which national and sector stakeholders demonstrate a strong interest and ownership by actively participating in the SPEED diagnostic process and are committed to taking practical action on the resulting recommendations.

While these criteria offer a structured approach for sector selection, the final choice may also be predefined or shaped by government mandates and policy priorities, such as the implementation of NDCs.

► SPEED diagnostic phase: sectoral diagnostic logic

Figure 4. Sectoral diagnostic logic





The SPEED sectoral diagnostic logic follows a comprehensive approach to understanding the factors driving skills development in the context of the green transition: the changing environment; regulation and policy and standards; green technology, digitalization and innovation; market trends and customer behaviour; and trade and global value chains. In the contexts where sectors are dominated by SMEs, often with limited engagement in research and development, low technology adoption and minimal participation in global value chains, the diagnostic logic can be adapted by focusing on locally relevant factors identified through closer engagement with local business associations. Such factors include those outlined below.

Climate and environmental change: The impacts of climate change, biodiversity loss, and pollution present both challenges and opportunities for labour markets. Industries must adapt to shifting environmental conditions, requiring workers to develop new skills that enhance resilience and sustainability. This includes the ability to manage climate risks, such as extreme weather events, and adapt to changing seasonal patterns, in particular in such sectors as agriculture. For instance, farmers and agribusinesses will need expertise in climate-smart practices to cope with prolonged droughts or excessive rainfall, ensuring productivity and sustainability in the face of environmental uncertainty.

Regulation, policy and standards: Government policies, climate commitments – such as NDCs and NAPs – and industry standards set the direction for relevant skills demand. They influence how businesses adopt sustainable practices by setting rules, offering incentives, or imposing restrictions. For example, bans on single-use plastics or higher taxes on carbon emissions push companies to shift toward greener alternatives, requiring new skills in sustainable production. At the same time, subsidies for the use of renewable energy or tax breaks for eco-friendly businesses encourage investment in cleaner technologies and innovation, creating opportunities for green job growth.

Green technology, digitalization and innovation: Advancements in green technologies, digitalization and innovation are reshaping skills demand across industries. This shift is driving a growing need for expertise in developing, commercializing and implementing sustainable technologies and digital tools, and also in their maintenance and upgrading. For instance, construction professionals require skills in energy-efficient building techniques, AI-driven design tools and the use of environmentally sustainable materials.

Market trends and customer behaviour: Consumer preferences for environmentally friendly products and services, corporate sustainability commitments and growing markets for green industries play a role in determining which skills are most in demand. For instance, growing consumer demand for sustainable tourism experiences will require professionals skilled in managing environmentally friendly accommodation, and creating and marketing sustainable tourism packages.

Trade and global value chains: The structure of international trade, the evolution of green production standards and the demand for sustainable goods in global markets are redefining how goods and services are produced, distributed and consumed globally and also influence sectoral skills needs. For example, in the textile and clothing industry, the demand for sustainably sourced materials and eco-friendly production processes requires workers with expertise in sustainable textile production, supply chain management and waste reduction practices to meet global green standards.

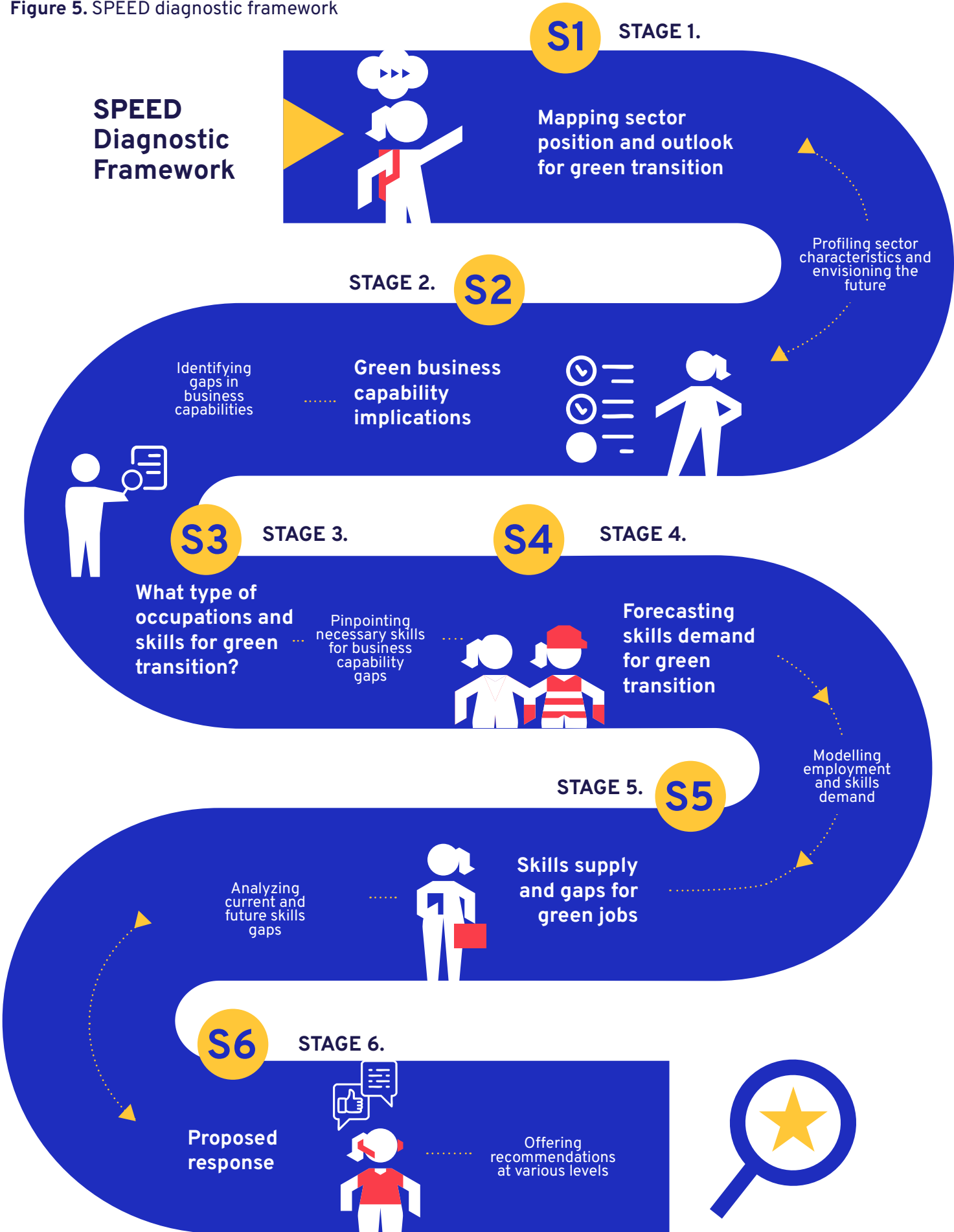


► SPEED diagnostic phase: integrated diagnostic framework

Effective green transition and productivity considerations in the SPEED diagnostic process are underpinned by four key principles. First, systematic consideration ensures that green transition aspects are explicitly and consistently evaluated at each analytical stage of the SPEED diagnostic process. Second, a double dividend approach ensures that skills interventions are designed simultaneously to boost productivity and advance environmental sustainability, creating mutually reinforcing benefits. Third, a just transition ensures that no one is left behind by the implementation of gender-sensitive and inclusion-oriented measures to equip all individuals with the necessary skills and support to adapt to greener practices. This approach mitigates potential negative impacts while promoting equitable outcomes for all. Lastly, an innovation focus prioritizes the development of skills that foster innovation and technology adaptation for both productivity enhancement and green transition, driving long-term sustainability and economic growth.

The break-down of the SPEED diagnostic framework into six stages, as shown in figure 5 and detailed below, anticipates a sector's future performance in the context of the green transition and productivity enhancement, and the resulting skills changes in labour demand.

Figure 5. SPEED diagnostic framework





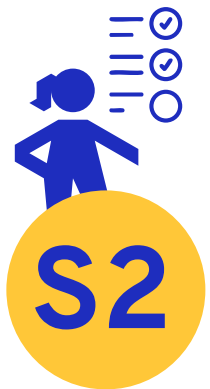
► **Stage 1. Mapping sector position and outlook for green transition:**

The first stage delves into sector profiling, exploring its key characteristics in quantitative and qualitative terms and exploring the business environment with a particular focus on green transition and its future prospects. The findings are then shared with sector partners to shape a bold yet achievable vision for environmentally sustainable growth in the medium term. Key questions addressed at this stage are the following:

- **How does the sector currently perform in terms of market position, productivity and environmental impact?**
- **What key opportunities and challenges exist for integrating green transition pathways into the sector's future growth vision, considering technology adoption and business environment trends?**
- **What is the sector's shared vision for sustainable and inclusive future growth?**

Key assessment areas include:

- current market position and socio-economic performance
- productivity levels and benchmarking
- climate and environmental context
- technology adaption level
- shared vision for future growth that integrates green transition pathways



► **Stage 2. Green business capability implications:**

A business's capabilities stem from its technology, processes, skilled workforce, work organization, infrastructure, intellectual property, industry connections in the value chain and other factors. Stage 2 identifies the gaps between the sector's current business capabilities and what is needed to achieve the growth vision set in stage 1. Key questions addressed at this stage are the following:

- **What are the critical green business capabilities required to bridge the gap between the sector's current state and its envisioned sustainable growth?**
- **How can businesses enhance their productivity, innovation, and adaptation capabilities to accelerate the green transition while maintaining competitiveness?**

Key assessment areas include:

- key business capabilities needed for achieving the shared vision
- green technology adoption capabilities
- resource efficiency management capabilities
- environmental compliance capabilities
- productivity improvement capabilities
- innovation and adaptation capabilities



► **Stage 3. Type of occupations and skills:**

Stage 3 pinpoints the type of skills needed to bridge key business capability gaps, identifying relevant occupations while taking into account the technological advancements and the green transition. In addition, Stage 3 also identifies persistent skills gaps that hinder the sector's performance and won't resolve on their own, even if they don't align directly with the main business capability gaps. Key questions address are:

- **Which specific occupations, tasks and relevant technical, core (soft) and foundational skills are needed to bridge key green business capability gaps and improve sector performance?**
- **Which persistent skills gaps are limiting sector growth in the context of the green transition, and how can they be effectively addressed?**
- **Which are the emerging occupations and skills needed to green the sector?**

Key assessment areas include:

- technical skills, in such areas as renewable energy engineering, organic farming techniques and AI skills
- semi-technical skills, in such areas as project management and customer handling
- core (soft) skills, in such areas as leadership, communication, critical thinking, problem solving and entrepreneurship
- foundational skills, in such areas as numeracy, literacy, digital literacy and environmental literacy



► **Stage 4. Forecasting skills demand for green jobs:**

This stage depends on the availability of data for occupational forecasting. Since it is workers, rather than skill sets, that companies hire and since they need to develop useful policy recommendations, future skills needs are translated into workforce demand based on the sector's current occupational structure and the expected demand for new skills. The result gives a picture of expected demand for workers by each relevant skill type. Key questions addressed at this stage are the following:

- **How will the green transition reshape the sector's occupational structure and workforce composition?**
- **What impact will the green transition have on social inclusion within the sector, including on gender balance?**
- **What is the projected skill demand for green jobs?**

Key assessment areas include:

- current workforce composition
- future workforce needs by skill type
- impact of green transition on occupational and demographic structure
- productivity improvement requirements
- skills intensity of green technologies
- scenario-based demand projections



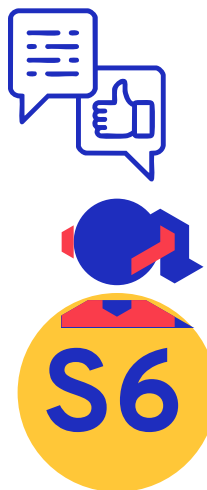
► Stage 5. Skills supply and gaps for green jobs:

This stage focuses on identifying shortages and gaps between skills supply and demand now and in the future for key occupations. The analysis also identifies system-wide constraints in skills supply, looking at education and training systems and mechanisms for skills anticipation in order to identify potential institutional causes for skills mismatch. Key questions addressed at this stage are the following:

- What are the main gaps between the current skills supply and future demand for green jobs in the sector?
- How well are education, training systems and skills anticipation mechanisms aligned with the evolving needs of a green economy?

Key assessment areas include:

- current skills supply mapping
- training system capacity analysis
- skills for green jobs provision assessment
- quality and relevance evaluation
- skills for green jobs anticipation mechanisms
- institutional capacity assessment



► Stage 6. Proposed response:

The recommendations are designed with both short-term and long-term perspectives, addressing system-wide challenges and occupational levels to ensure a strategic approach to skills development for the green transition.

The SPEED analysis provides practical recommendations at three levels:

- **Policy level:** suggestions at this level focus on developing relevant training programmes, improving job matching and creating incentives, such as taxes and subsidies, for skills development and innovation for greening economies. The analysis also aims to align climate and environment, investment, labour market, sectoral and skills policies.
- **Institutional level:** recommendations are aimed at ensuring that training and education providers better meet industry needs, improve access to relevant skills for disadvantaged groups, encourage dialogue with employers and establish systems for skills planning and governance.
- **Enterprise level:** guidance covers such workplace factors as in-house training, employee retention, social inclusion and productivity enhancement and is aimed at improving collaboration between employers and workers on training needs.



► SPEED strategy development phase

The SPEED strategy development phase involves the formulation of a sector-specific skills strategy informed by the outcomes of the technical and policy foresight workshop and a comprehensive synthesis of findings from the earlier skills diagnostic report. The draft strategy presents targeted recommendations addressing current and future skills needs and gaps, identifies system-level priorities for the sector, and outlines a road map with practicable steps, timelines, expected outcomes and entities or individuals responsible for implementation. To ensure relevance, ownership and smooth implementation, the draft is further refined through additional stakeholder consultations and dialogue. The process culminates in a validation workshop, where key stakeholders, including government representatives, workers' organizations, industry leaders and education and training institutions, review and validate the strategy, setting the stage for its implementation.





► SPEED implementation phase

ILO's SPEED-based technical assistance projects go beyond analysis and include supporting and enabling implementation. Diagnostics and strategy only matter if they lead to specific actions and implementation. In this context, at the end of the diagnostic phase or the strategy development phase, key partners identify priority areas and take tangible steps to put them into practice. Efforts are also made to secure resources for scaling up broader strategic skills recommendations, thereby ensuring the sustainability of the project. The implementation areas include the following:

- Competencies and occupational standards
- Vocational qualification frameworks
- Curriculum development and updating
- Capacity-building for teachers and trainers
- Assessment system strengthening
- Industry partnership promotion
- Integration of skills for green jobs
- Productivity improvement programmes
- Institutional capacity development
- Strengthening institutional mechanisms such as sector skills bodies

Other useful tools and products for analysis and implementation

Various ILO tools and knowledge products offer valuable insights for the SPEED analysis and serve as practical guides for implementing the key recommendations.

Areas	ILO resources	Summary
► Policy research	Skills for a greener future: a global view (2019a)	Global study with an analysis of the implications of the transition to low-carbon and resource-efficient economies for skills, gender and occupations (based on 32 country studies), providing a global projection of the implications of energy sustainability and circular economy for skills, gender and occupations by 2030.
	Navigating the future: Skills and jobs in the green and digital transitions (2024a)	Research brief presenting scenario-based insights on employment creation in green and digital transitions.
	Decent Work in Nature-Based Solutions 2024: Unlocking jobs through investment in skills and nature-based infrastructure (2024b)	Second report by ILO, the United Nations Environment Programme and the International Union for Conservation of Nature in a biennial series on decent work, just transition and nature-based solutions, with a dedicated chapter on skills for nature-based solutions.
► Policy advice and practical tool	STED Diagnostic guide (2012)	Tool to help policymakers work with the private sector and employers' and workers' organizations in thinking strategically about the skills demands of tomorrow and about the supply responses required today.
	Anticipating skill needs for green jobs: A practical guide (2015)	Guidance on how to embark on the identification of current and anticipation of future skills needs for the green economy and green jobs.
	Rapid STED guide (2020a)	Guide providing advice on implementing the STED sectoral approach to help move more effectively from diagnosis of skills needs to implementation of the required skills development responses.
	Skills Development for a Just Transition (2022a)	Policy brief forming part of the ILO Just Transition Policy briefs series and intended to present the linkages between just transition and skills development, providing stakeholders with information and recommendations for implementation.
	Greening TVET and skills development: A practical guidance tool (2022b)	Step-by-step tool for greening TVET, competency standards, curricula, training and assessment packages, focusing on low-income and middle-income countries.
	Green Employment Diagnostics for Just Transitions (2023a)	Guide which aims to enhance understanding of the interplay between the environment, economy and employment, empowering ILO constituents to identify trends, constraints and opportunities related to climate change impacts on the labour market.
	Policy Brief: Green Jobs Assessment Model (GJAM) (2023b)	Tool for evidence-based policy advice to achieve better jobs outcomes and a just transition for all.
	Productivity measurement and analysis: A guidance note (2024c)	Guidance note which seeks to assist national statisticians and economists in making the best use of available data to obtain detailed productivity measures.
	Guide on making TVET and skills development inclusive for all (2020b)	Guide which aims to help skills decision-makers and practitioners assess to what extent their TVET system is currently excluding certain individuals or groups, identifies underlying reasons and provides practical ideas on what could be done to redress inequalities.
	Guide for Policymakers - Quality Apprenticeships Recommendation, 2023 (No. 208) (2024d)	Guide which supports the implementation of quality apprenticeships in line with Recommendation 208, offering practical insights and practicable strategies to build apprenticeship systems that are effective, equitable and sustainable.
	Financing and incentives for skills development: making lifelong learning a reality? (2021a)	Policy brief which explores financing and incentive mechanisms to make lifelong learning a reality, focusing on the urgent need to close funding gaps. It examines policy options and challenges, giving particular attention to adult learning and continuing vocational training (CVET).
	Skills anticipation and matching (2016)	Compendium of six methodological guides on anticipation and matching of skills supply and demand.
	Anticipating and matching skills and jobs (2015)	Guidance note which explains the key components of skills anticipation systems, including data, methodologies, tools and institutions.
	Resource Guide for Sector Skills Bodies (2021b)	Resource guide which outlines key considerations for establishing and operating tripartite sector skills bodies, explores international models and highlights actions to enhance their sustainability.
	Aligning Skills Development and National Social Protection Systems (2023c)	Paper providing initial information and examples on how social protection can be complemented by skills interventions to achieve better and more lasting outcomes in terms of decent work and a decent life.
	Integrating Skills for Just Transition in Nationally Determined Contributions (NDCs) 3.0. (2025)	Guidance note which highlights the critical role of skills for just transition, provides practical steps and guiding questions for the inclusion of skills in NDCs, and showcases specific approaches through country examples.
	ILO strategy on skills and lifelong learning 2030 (2023d)	Strategy which presents the key steps that the ILO – in collaboration with relevant development partners – will take over the period 2022–30 to strengthen its global leadership in skills development and lifelong learning systems.
	The role of employers in skills development systems (2020)	Policy brief which discusses how employers and employer and business membership organizations can strengthen their involvement in skills systems and which highlights some of the benefits of such involvement.
	Workers' organizations engaging in skills development (2019b)	Brief which outlines ILO support for workers' organizations in skills development and showcases engagement at national, sectoral and enterprise levels.
► Capacity-building	E-learning Course on Skills for a Greener Future	Six-week online course on skills for green jobs, including regional and national versions which the ILO has been conducting since 2021 in collaboration with the International Trade Centre.



► Terms and definitions

While there are various terms and definitions related to the skills required for greening economies and societies, the ILO adheres to key terms and definitions outlined below. Details of some of these definitions may be found in the ILO publication “Green jobs, green economy, just transition and related concepts: A review of definitions developed through intergovernmental processes and international organizations” (2023e).

Green economy: This is defined as low carbon, resource efficient and socially inclusive. In a green economy, growth in employment and income is driven by public and private investment in economic activities, infrastructure and assets that allow reduced carbon emissions and pollution, enhanced energy and resource efficiency, and prevention of the loss of biodiversity and ecosystem services (UNEP 2011).

Green jobs: These are decent jobs that contribute to preserving or restoring the environment, be they in traditional sectors such as manufacturing and construction, or in new, emerging green sectors such as renewable energy and energy efficiency. Green jobs help to improve efficiency in the use of energy and raw materials, limit greenhouse gas emissions, minimize waste and pollution, protect and restore ecosystems, and support adaptation to the effects of climate change (ILO 2016).

Just transition: This means promoting a green economy in a way that is as fair and inclusive as possible to everyone concerned – workers, enterprises and communities – by creating decent work opportunities and leaving no one behind. A just transition involves maximizing the social and economic opportunities of climate and environmental action, while minimizing and carefully managing any challenges, including through effective social dialogue and stakeholder engagement and respect for the fundamental principles and rights at work (ILO 2023a).

Productivity: This represents the amount of output produced per unit of input. It refers to the efficiency with which inputs are used to produce outputs (goods and services). The most commonly used measure of productivity is labour productivity, which is defined as the output per unit of labour input. A more sophisticated measure is “total factor productivity” (also referred as “multi-factor productivity”), which assesses the output per combined unit of all inputs (ILO 2024).

Skills need anticipation: This refers to any forward-looking diagnostics used to identify skills needs expected on future labour markets, performed by any type of method, quantitative or qualitative, including interaction, exchange and signalling between labour market actors (ILO 2015).

Skills for green jobs: These are skills that are necessary to successfully perform tasks for green jobs and to make any job greener. The term includes both core and technical skills, and covers all types of occupations that contribute to the process of greening products, services and processes, not only in environmental activities but also in other sectors (ILO 2015).



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