Synthesis Paper

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Theme 2. Enhancing skills and developing technical and vocational education

Synthesisers

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Abstract

This report synthesises 36 responses from 34 participating countries to examine how policies and services for career development support policies for skills development, lifelong learning, and technical and vocational education and training (TVET). There was general agreement among countries that career development services help people to develop skills, to access training, and to support the uptake of TVET pathways.

Four categories of challenges to participation in TVET and skills development emerged: perceptions and social stigma; guidance and information deficits; structural and systemic alignment; and employer and industry engagement. Perceptions and social stigma mainly concerned parents' and students' negative views of TVET and related occupations, and the gender stereotyping of such occupations. These were true across most countries regardless of country income level. This stigma was reinforced in some countries by the compulsory assignment to TVET of students with weak academic results. The guidance and information deficits reflected the lack of knowledge of TVET pathways and occupations by both school staff and career guidance practitioners and a lack of career guidance support for students before entering and during TVET, more often reported by middle- and low-income countries. High drop-out rates from TVET, lack of progression pathways to higher education from TVET, inflexible/rigid pathways within TVET and general education, and geographic (urban/rural) and regional disparities in TVET and guidance access were some examples given of structural and systemic alignment problems. Shortage of work placements for trainees, weak feedback information loops with the labour market resulting in mismatches between employers needs and TVET content highlighted the importance of employer and industry engagement. These four sets of challenges do not exist in isolation but feed into reinforcing cycles whereby systemic and institutional design e.g. compulsory assignment creates negative perceptions and social stigma e.g. attractiveness of VET, in turn impacted by guidance and information failures e.g. learners' lack knowledge of TVET and related occupations, and unfavourable labour market and educational outcomes e.g. high drop-out rates, misalignments with employers' needs. Many of the factors are outside the immediate control of career guidance providers but they can contribute to their amelioration. Some good examples were presented of national policies, programmes, services, and coordination in career guidance that governments use to support TVET and skills development participation for young people and adults.

1. Introduction and methodology

This paper synthesises and summarises the perspectives articulated in 36 responses from 34 countries to the survey circulated last May by the International Centre for Career Development and Public Policy as preparation for the Symposium, to be held in Auckland, New Zealand in November 2026.

The production of country papers and thematic syntheses is at the core of the methodology used in the international symposia (Watts et al., 2014). This synthesis and the other two thematic syntheses (covering high productivity and the inclusive economy and ensuring disadvantaged groups can thrive) will be made available prior to the 2026 Symposium and will be used to underpin discussion during the event and to inform the development of country action plans and the 2026 Symposium Communiqué.

This paper addresses the second theme of the Symposium, which explores how career development services interact with and support skills, lifelong learning, and technical and vocational education and training (TVET).

The terms *career guidance*, *career development* and *guidance* are used interchangeably throughout this paper, as are *vocational education and training (VET)* and *technical and vocational education and training (TVET)*, to reflect the variance in terminology used across countries.

1.1 Framing the theme

Labour markets are being reshaped by technological change and digitalisation, including artificial intelligence; demographic shifts such as population ageing, globalisation, and climate change and the energy transition (Interagency Working Group on Career Guidance, 2025; International Labour Organization [ILO], 2021; OECD, 2026; World Economic Forum, 2025). These changes alter the value of different skills and make career pathways more complex and less predictable (Interagency Working Group on Career Guidance, 2025; OECD, 2026). Upskilling, reskilling and lifelong learning have consequently gained prominence (ILO, 2021; OECD, 2026; World Economic Forum, 2025), yet participation in adult training is falling in many countries and, when it does occur, is often very short (OECD, 2026).

Career guidance is closely connected to this agenda: it helps learners and workers navigate an increasingly complex labour market, contributes to balanced lifelong learning systems and is considered a key policy for promoting apprenticeships (ILO, 2024). As adult learning systems become more flexible, and therefore harder for individuals to navigate, the OECD (2026) recommends expanding and improving career guidance services.

This relationship also raises questions about the public policy goals that guidance is expected to serve and whom it reaches. TVET faces challenges of relevance and attractiveness. Its relatively low standing is a concern both in countries with developed and developing economies, although its meanings and implications vary across contexts (Stalder et al., 2022). In low- and middle-income countries, TVET is frequently perceived as a second-tier track, and its connection with the labour market is often weak (ILO, 2024; World Bank et al., 2023).

In the country reports provided as preparation for the 2019 Symposium, several countries viewed increasing participation in VET/TVET as a legitimate aim of career guidance and

questioned where the boundary lies between acting as a career practitioner giving impartial guidance and acting as a TVET advocate for government policy and labour market demand (McCarthy & Borbély-Pecze, 2019). A broader view of guidance can help address this tension: TVET institutions (and schools) can adopt a career education approach that complements technical training through experiential and work-related learning to help learners think beyond the choice of an occupation to how they manage their careers over time (ILO, 2024).

Evidence from the OECD Career Readiness project points in a similar direction. Longitudinal data from eight countries in Asia, Europe, Latin America, North America and Oceania show that secondary school students who explore, experience and think about their futures in work tend to experience lower unemployment, higher wages and greater career satisfaction as adults (Covacevich et al., 2021). Yet too few students engage in the activities most strongly related to successful transitions, and young people are not receiving enough guidance that connects them with employers and people in work (OECD, 2025). Access to guidance is also unequal. Teenage access to career development is strongly patterned by socio-economic background, gender and migrant status (OECD, 2024), and adults in higher-skilled occupations are more likely to engage in learning than those in lower-skilled jobs (OECD, 2026). This raises the question of whether career guidance reaches those who would benefit most from it.

1.2 Questions and analytical approach

Countries were asked to respond to the following questions on this theme:

- Q23. *To what extent do policies for education, training, and employment in your country reflect the following statements? (Career development services support people to develop skills; support people to access training; support the uptake of TVET pathways; support lifelong learning.)*
- Q24. *What are the biggest challenges for participation in the technical and vocational education and training (TVET) system in your country?*
- Q25. *At what age do young people generally move onto a TVET pathway if that is the path they take?*
- Q26. *Does the age of pathway selection cause challenges for your TVET system?*
- Q27. *Is there anything else that you would like to say about the age of pathway selection?*
- Q28. *Provide further information on the ways in which policies for career development services in your country enhance policies for skills development, TVET, and lifelong learning.*
- Q29. *Please provide links to any key reports, articles or websites that provide further insights about how career development services can enhance skills and support TVET.*

The analysis is based only on countries' answers to these thematic questions (Q23 to Q29), combining the quantitative items with the open responses. Answers to other sections of the survey were not used, except to describe who responded (Q7). To enable comparison,

countries were grouped by world region and income level, following the World Bank classification (FY2027; World Bank, 2026).[1]

Respondents are concentrated in Europe and Central Asia (14 of 34, 41%) and in high-income countries (21 of 34, 62%), with only one low-income country represented (Burundi). Aotearoa New Zealand submitted three separate responses to cover Māori and Pasifika interests; this synthesis takes account of all three. This brings the total to 36 responses from these 34 countries. For country-level comparisons, including the regional and income breakdowns above and Tables 1 and 2 below, New Zealand's three responses are combined into a single country-level entry so as not to over-weight this country; all three responses are instead drawn on separately throughout the qualitative discussion. England, Scotland and Wales who have independent policies and systems for TVET and career guidance are treated as separate entries. Five countries did not answer Q28 or answered it only with a reference or a link (Bangladesh, El Salvador, Nigeria, Poland and Singapore).

Respondents also differ in the type of organisation they represent (Q7, *What organisation do you work for?*): they include government ministries and public agencies, universities and research institutes, professional associations, non-governmental and private organisations, and an international organisation, and some responses were prepared jointly by representatives of several organisations. All answers are self-reported: statements about national policy reflect each respondent's perspective and should not be read as official government positions or as an assessment of national systems.

Comparisons between income groups rest on small numbers (21 high-income and 13 middle- or low-income countries). Given the size and composition of the sample, the findings should be read as indicative rather than representative.

2. Global overview and macro trends

Country responses mention several issues related to skills and TVET, for example:

- **Shortages of skilled workers:** Austria, Denmark, Luxembourg and the United States (USA), with the latter mentioning worker shortages and skills gaps.
- **Youth unemployment and young people not in education, employment or training:** Canada and New Zealand report high rates of youth unemployment (14.7% and 17.1%) and New Zealand and Nigeria with high NEET rates (13.8% and 12.5%). Wales places Careers Wales at the centre of its prevention and inclusion policy for young people at risk of becoming NEET.
- **Informal work:** Cameroon, Chile, Colombia, India, Kenya, Nigeria, Peru, and Sri Lanka describe initiatives in establishing mechanisms for the Recognition of Prior Learning to validate skills acquired in the informal economy or report informal apprenticeships as a TVET route.
- **The digital and green transitions:** Australia, Cameroon, Colombia and Luxembourg link training and guidance to digital, clean-energy or environmental change.

[1] The World Bank classifies the United Kingdom as a single economy (high income; Europe and Central Asia). England, Scotland and Wales, which responded separately, are each assigned the United Kingdom's classification in this synthesis.

- **Older workers and adult learning:** Colombia, Croatia, Japan, Finland, Luxembourg, and Switzerland describe guidance support and retraining for older or mid-career adults.
- **Migration:** Chile, Finland and Luxembourg describe guidance or recognition of prior learning for migrants.
- **Labour-market feedback loops:** Austria, Canada, Scotland and Wales describe employer engagement mechanisms and future skills initiatives.

In their answers to Q28 (regarding further information on the ways in which policies for career development services enhance policies for skills development, TVET, and lifelong learning), respondents describe a wide variety of arrangements, and the survey does not allow countries to be compared or classified on this point. Some respondents refer to a national strategy, policy or law for career or lifelong guidance, for example Colombia (Law 2109 of 2021 on socio-occupational guidance), Croatia (Strategy for Lifelong Career Guidance and Career Development), Ireland (National Strategic Framework for Lifelong Guidance 2024–2030), Sri Lanka (National Strategic Plan for Career Guidance 2025–2029) and Switzerland (National Strategy for Vocational, Academic and Career Guidance, 2021). England notes that its 2025 statutory guidance for schools explicitly recognises support for TVET pathways as an important part of careers provision. Finland describes career development services and skills policies as "designed and reformed jointly rather than separately", and Wales describes career development services as "the connective infrastructure" of a more aligned TVET system. Japan states that "the 12th Basic Plan for Human Resources Development positions vocational ability development, the visualisation of labour market information, autonomous and proactive career formation support, and human resource development in companies in an integrated manner". Furthermore, the 4th Basic Plan for Education "positions career education, vocational education, recurrent education, lifelong learning and responses to diverse educational needs as important policy areas". These policy plans underpin career learning support for young people and adults in a lifelong learning approach to skills development and reskilling.

Other respondents describe guidance services that are limited or in transition. Chile reports that its career guidance services are still limited in scope and at an early stage of development. Burundi describes career development as functioning "less as a standalone service supporting TVET and more as a byproduct of TVET's own access and progression rules". Scotland has passed legislation that will move responsibility for government-funded training, notably apprenticeships, away from the agency that also provides its public careers service. New Zealand calls for skills policy, workforce planning and career development to be better connected.

3. Thematic findings

3.1 Embedding career learning to support skills development

Countries broadly agree that career development services support skills development: most agree that they support people to develop skills and to access training (Q23). Agreement is higher among high-income countries than among middle- and low-income countries.

Several countries describe career learning in schools:

- **Finland:** the National Core Curriculum makes career management skills a curricular requirement, delivered by qualified guidance counsellors and supported by at least two periods of work experience (TET) in grades 7–9 before students choose vocational pathways.
- **Wales:** the new curriculum (2022) makes careers and work-related experiences a mandatory part of the curriculum from age 3 to 16.
- **Switzerland:** transitions (age 14/15) between compulsory education and upper secondary or vocational are well supported by career guidance services and there is flexibility to changing between those two pathways.
- **India:** the National Education Policy 2020 seeks to introduce career guidance support for educational choices and transitions in secondary schools.
- **Ireland:** experiential career learning, supported by guidance counsellors, is embedded in the Transition Year Programme (TYP) between junior cycle and senior cycle and in the Leaving Cert Applied Programme while the national curriculum contains vocational subjects in second-level schools (age 12 to 18).
- **Korea:** provides a Free Semester programme (inspired by the TYP in Ireland) in junior high school to assist students to make more informed choices of academic and vocational pathways at age 15.
- **Norway:** career learning is mandatory in lower secondary school that assists students' choices of vocational tracks in upper secondary school.
- **Greece:** At the end of vocational upper secondary schools (EPAL), students combine general education with a vocational specialisation enabling them to enter the labour market, continue TVET, or pursue higher education.

Scotland reports that major education reforms are under way including the strengthening of access to vocational qualifications within schools, and experiential career learning and work-based projects in the senior phase, supported by business. Career learning as a cross-curricular theme is being reviewed by Education Scotland (Q27).

Other countries report that career learning in schools depends on local implementation or is limited. In Canada, most provinces and territories include career-related learning in the K–12 curriculum, "but its quality largely depends on local implementation and the interest and expertise of teaching staff". Australia reports that access to structured career education "varies across jurisdictions and schools". USA refers to the wide gap between policies for career guidance and their implementation, in part due to a wide variation in the training and qualifications of career practitioners. In Brazil, basic education (up to age 14) and secondary schools (ages 15 to 17) are legally required to include *Projeto de Vida* (Life Project) as a core curricular component, but teachers are not trained to deliver this. The Māori New Zealand response refers to the cultural appropriateness of existing career guidance policy and interventions and respect for the collective capacity of its people.

On access to training, Australia describes career development as acting "as a bridge between skills policy and individual participation", and in Croatia the nationwide network of Career Information and Counselling Centres (CISOK) "plays a significant role in connecting individuals with training and upskilling opportunities". In Japan, the Job Card is a tool for lifelong career planning and evidence of vocational abilities which is used in career consulting and vocational training. The Career Development and Reskilling Support Programme provides free support for individuals, companies and schools, using the Job

Card to support career formation and reskilling. Services that help adults find and access training are described in section 3.5.

3.2 Improving the attractiveness of TVET

Most countries agree that career development services support the uptake of TVET pathways. Yet social perceptions of TVET are the most frequently reported barrier, mainly negative perceptions of parents and gender stereotyping, followed by negative perceptions of school leavers. Parents' negative perceptions of TVET are equally strong in high-income and in middle- and low-income countries while the impact of gender stereotyping is reported by most European countries.

Open responses describe how TVET is perceived in relation to other pathways:

- **Chile:** university "continues to enjoy a high status, based on the idea of social mobility", and many families expect their children to follow that path.
- **South Korea:** the belief, particularly among parents, that higher education is essential remains deeply embedded, alongside a disparity in social perception and treatment between vocational and university graduates.
- **Japan:** There is a strong orientation toward university entrance, and vocational or practical education is not always recognised as an attractive pathway.
- **New Zealand:** parity of esteem remains a challenge, although only around 30% of school leavers progress directly to university. The Pasifika New Zealand response adds that pathway decisions are often influenced by schools, where TVET is positioned as a less desirable option compared with academic routes.
- **United States:** a stigma lingers around TVET because of a history of students from marginalised groups being pushed onto TVET tracks with reduced options.
- **Greece and India:** Greece refers to the traditionally lower status of vocational education compared with general education, and India to social perceptions that place greater value on academic pathways.

Countries describe measures to make TVET more attractive. Austria reports regional events, VET fairs, company presentations and internships, "also with the involvement of parents". Denmark's 2025 government political agreement on strengthening TVET contains 31 initiatives to improve the quality of TVET, including to make TVET more attractive to young people and adults. Chile's *Mi Futuro* and *Elige Carrera* portals provide information on programmes and employment outcomes, "helping to promote TVET as a relevant option". No country describes a measure aimed specifically at combatting gender stereotyping in TVET choices. Peru notes the need to strengthen the positioning of TVET among adolescents and young people "as a viable short-term option with opportunities for educational progression and rapid entry into the labour market". Greece draws attention to another feature of attractiveness – the mismatch between students' particular TVET interests and the TVET programmes available in the area where they live.

3.3 Supporting learners before and during TVET pathways

Many countries report gaps in the knowledge of TVET and of the occupations they lead to of persons with responsibility to advise young people, namely school staff and career development practitioners. A significant number report a lack of career development services for learners considering TVET choices, and a lack of ongoing career guidance

support for learners in TVET. These gaps are reported more often by middle- and low-income countries (Table 1):

Table 1. Gaps in career development support around TVET, by income group

Challenge (Q24)	High-income (n = 21)	Middle- and low-income (n = 13)
School staff do not know enough about TVET	11 (52%)	11 (85%)
Lack of career development services for learners considering TVET	7 (33%)	10 (77%)
Career practitioners do not know enough about TVET	6 (29%)	9 (69%)
Lack of ongoing career guidance support for learners in TVET	8 (38%)	7 (54%)

Note. Number and percentage of countries in each income group that selected each option in Q24. Income groups follow the World Bank classification (FY2027).

Brazil reports that at the end of lower secondary school, adolescents "rarely have access to career development services or structured information regarding vocational pathways", and many miss the chance to enter public technical schools. Burundi reports that "learners lack guidance and information about what TVET will lead them to". Japan notes that challenges may include the social evaluation of vocational and practical education, parental understanding, school staff and career practitioners' understanding of occupational information, and the connection with employer needs. However, "these issues do not apply uniformly across the entire TVET-related system, and there are differences by system, region and field".

England reports that its 2025 statutory guidance is implemented through Provider Access Legislation and awareness of technical and vocational pathways such as V Levels, and that understanding of technical routes is improved through Careers Hubs, employer engagement, professional development and practical resources. Employer encounters and work experience help young people "make informed decisions about technical and vocational pathways".

Some responses describe career guidance support during TVET. In Finland, the personal study plan (HOKS) creates an individualised guidance and learning agreement that is updated throughout the qualification. In Kenya, Offices of Career Services operate within TVET institutions. Australia's Apprentice Connect Australia Providers act as the first point of contact for apprentices, trainees and employers, and Australia identifies the main improvement opportunity as embedding qualified career development support "before, during and after VET participation". Austria describes vocational training assistance especially for vulnerable and disadvantaged people whereby socio-pedagogical companions support the apprentice and the company throughout the entire training period. In Tunisia, career guidance provision is integrated in the mission of TVET centres.

North Macedonia reports career guidance integrated into schools, vocational institutions, universities and the employment service (ESA), and a Youth Guarantee that "ensures timely offers of employment, education, or training".

Drop-out rates from TVET programmes are reported as a challenge by 14 countries. Denmark reports that around 40–45% of those who start a TVET programme drop out. Greece links drop-out to premature or poorly informed decisions, and Austria to the age at which young people choose education paths (middle and grammar school at age 10; vocational pathways at age 14). Brazil's *Pé-de-Meia* programme provides monthly stipends to low-income students tied to attendance and progression, and Finland's 2026 VET funding

reform incentivises providers to support completion and transition. On practitioners' knowledge, Greece describes training seminars for practitioners through EOPPEP, and India calls for "strengthening professional capacity".

3.4 Flexible pathways and links with the world of work

Just over half of countries report that the age of pathway selection causes challenges for their TVET system (Q26), applying almost equally to high-income countries and middle- and low-income countries. Formal entry to TVET most often takes place at around 14 to 16, at the end of lower secondary education (Q25). The range is wide, however:

- **Earliest:** Cameroon describes a first milestone at age 11 to 12, Bangladesh reports entry after Grade 5, Grade 8 or Grade 10, and Austria notes that the choice of school type at age 10 is "already an essential decision".
- **Later entry:** several countries report a higher average age at entry. Denmark reports an average starting age of 25 in vocational education, and Canada an average age of 27 at apprenticeship registration. In Peru the average age of technical students is around 20.

Other responses describe how the choice is organised. Singapore describes the choice between vocational and academic pathways as "structured and predetermined towards the end of a 16-year-old education journey". England reports options at 16 (an apprenticeship or a post-16 TVET study pathway such as a T Level, or a V Level from 2027) and at 18 (an apprenticeship or a higher technical qualification at Level 4 or above). Tunisia reports entry at around 15–16 after lower secondary education, or at around 17–18 after secondary education. Japan reports multiple pathways corresponding to TVET: at age 15 after completing lower secondary school, some young people enter upper secondary schools with vocational courses or colleges of technology. After completing upper secondary school, some enter specialised training colleges, junior colleges, professional universities or public vocational training at around age 18. In addition, adults may participate in vocational training at any age through reskilling or public vocational training pathways. North Macedonia notes that the age of pathway selection is a challenge for late entrants but not for formal pathways, and Ireland notes that age does not seem to be a major factor because career learning supports are in place.

Some countries describe routes outside the formal system. In Nigeria, young people who leave the formal school system often train informally as apprentices under a master craftsperson, and North Macedonia reports late entry at 20–25 through non-formal reskilling.

Open responses (Q27) raise the following concerns about early selection:

1. **Limited information at the point of choice:** Australia, Brazil, Croatia, Greece and India note that young people decide before they have enough exposure to occupations or career guidance. In Canada, high school course prerequisites lead students to close off options "before they fully understand their interests, strengths, or career opportunities". Japan notes that "when career pathways are selected at an early stage, decisions can be strongly influenced by the young person's understanding of occupations, parental expectations, information provided by school staff and the educational opportunities available in the region", and that "when young people consider TVET-related pathways, it is important that they receive neutral and high-quality career support from an early stage, including occupational information,

labour market information and information on future opportunities for further study and career development".

2. **Lock-in:** Croatia and Wales note that early choices can narrow later options. South Korea describes the choice at age 15–16 as an "early decision, but not permanent".
3. **Equity:** Croatia notes that students from disadvantaged backgrounds may have less access to information and exposure to occupations. The Māori New Zealand response frames this as a systemic rather than an individual issue: pathway decisions made in secondary school can close off options before rangatahi have had meaningful exposure to vocational occupations, Māori enterprises or apprenticeships, and it is "the system that allocates opportunity", not learners' age or readiness, that most needs to change. The Pasifika New Zealand response adds that Pacific learners in vocational education are less likely than other groups to progress into apprenticeships, and that New Zealand ranks among the lowest OECD countries on students' sense of preparedness for their post-school pathway.

Colombia and the United States frame pathway selection as a process that recurs throughout life rather than a single event in youth.

The absence of progression routes from TVET is reported by several countries, but more often by middle- and low-income countries than by high-income countries. Countries describe the following arrangements:

- **Double qualifications:** Austria's five-year VET schools, Colombia's *Doble Titulación,* and Greece's dual qualifications for VET and general education.
- **Routes into higher education:** Norway's "work-route" for apprenticeship graduates, and Peru's *transitabilidad* provisions that validate modules for progression into higher technological education.
- **Qualifications and credit frameworks:** Chile's Technical and Vocational Qualifications Framework, India's National Skills Qualifications Framework and National Credit Framework, Kenya's Credit Accumulation and Transfer System, and Sri Lanka's National Vocational Qualification system and micro-credentials enable progression pathways and transfers.

On links with employers, 14 countries report poor alignment between TVET provision and employers' needs, again more often in middle- and low-income countries than in high-income countries. Fourteen report a shortage of employer training placements, with similar shares across income groups. Denmark reports that around 6,000 pupils were looking for an apprenticeship in 2024, and England reports limited apprenticeship opportunities in some areas and sectors. Responses describe sectoral and labour market intelligence mechanisms, such as Australia's Jobs and Skills Councils, New Zealand's new Industry Skills Boards (2026), Canada's Sectoral Workforce Solutions Program and Chile's Mining Skills Council. Burundi notes the absence of a mechanism that feeds labour market outcomes back into curricula or career advice.

A significant number of countries mention the compulsory assignment of students with academic challenges to TVET. Tunisia argues that TVET choices should rest on learners' interests and aspirations "rather than being perceived as an alternative option only for students experiencing academic difficulties".

3.5 Career guidance for adult learning and lifelong learning

Support for lifelong learning receives the lowest agreement of the four Q23 statements, showing a marked gap between high-income and middle- and low-income countries. Falling numbers of adult learners is the least reported challenge (England, Japan and Sri Lanka).

Countries describe a range of adult measures:

- **Career reviews and adult guidance services:** Switzerland's *viamia* programme offers free career reviews for adults aged 40 and over. In Ireland, Education and Training Boards provide free, impartial adult education guidance.
- **Integrated lifelong learning systems:** Finland's continuous learning reform (since 2021) "put guidance at the centre of adult learning policy", supported by a digital services package that helps adults identify their competences and find provision. Norway has opened upper secondary education, including TVET, to adults, with a guarantee of support.
- **Recognition of prior learning and retraining:** examples include Cameroon (validation of prior experiential learning), Chile (ChileValora), Colombia (recognition of prior learning and the *Ruta Tipo de Reconversión Laboral* for workers affected by technological or environmental change), Kenya and Sri Lanka. RPL plays a key role in enabling adult learning and work progression and employability and employment retention.
- **Short upskilling programmes:** Luxembourg's *Skillsbridges* co-finance short training for employees adapting to digital and ecological transitions, with career counsellors involved.
- **Support for companies as well as individuals:** Japan's Career Development and Reskilling Support Programme provides free support for individuals, companies, organisations and schools, using the Job Card to support career formation and reskilling.

El Salvador notes that, while younger learners mainly need soft skills, adults require technical training, upskilling and reskilling (Q27).

Responses also point to gaps. South Korea reports disparities in career development support between school-age and non-school-age populations. In the United States, access to career development services for adults outside the education system "can be more tenuous". Canada warns that a 15% reduction to Workforce Development Agreements "risks reducing access to career development and skills training" for those facing the greatest barriers. Tunisia notes that "further development is needed to strengthen labour market information systems, digital guidance services, early career guidance in schools and continuous support throughout individuals' working lives".

4. Major challenges and barriers

Respondents identified several recurring challenges for TVET policy that are summarised in Table 2. For presentation, the response options are grouped into three clusters: perceptions of TVET, gaps in career development support, and system-level design and alignment.

Table 2. Challenges for TVET policy reported by respondents

Cluster	Challenge	All, n (%)	High-income, n of 21	Middle- and low-income, n of 13	Countries
Perceptions	Parents do not see TVET pathways as attractive	26 (76%)	16	10	AU, BD, BI, BR, CA, CL, CM, DK, ENG, GR, HR, IE, IN, JP, KE, LK, LU, NG, NZ, PE, PL, SCT, SG, TN, USA, WLS
	Gender stereotyping influences TVET choices	26 (76%)	16	10	AT, AU, BD, BI, BR, CA, CH, CL, DK, ENG, FI, GR, HR, IE, IN, JP, KE, MK, NG, NO, NZ, PE, PL, SCT, SV, TN
	School leavers do not see TVET pathways as attractive	19 (56%)	12	7	AU, BD, BR, CA, CL, ENG, GR, HR, IN, JP, KE, LK, LU, NG, NZ, PL, SG, TN, USA
Career development support	School staff lack knowledge of TVET pathways	22 (65%)	11	11	AU, BD, BI, BR, CA, CL, ENG, GR, IN, JP, KE, KR, LK, LU, MK, NG, PE, PL, SCT, SV, TN, WLS
	Lack of career development services for those considering TVET	17 (50%)	7	10	BD, BI, BR, CA, CL, CM, CO, ENG, GR, IN, KE, KR, MK, NG, NZ, TN, USA
	Lack of ongoing career development for people on TVET pathways	15 (44%)	8	7	AT, BD, BI, BR, CA, CL, ENG, HR, IN, NG, NO, NZ, PE, TN, USA
	Career development practitioners lack knowledge of TVET pathways	15 (44%)	6	9	BI, BR, CA, CM, ENG, IN, JP, KE, KR, LK, LU, PE, SV, TN, USA
System design and alignment	Age of pathway selection causes challenges (Q26)	20 (59%)	12	8	AT, AU, BR, CA, CH, CL, CM, CO, DK, GR, HR, IN, JP, LK, LU, MK, NZ, PE, TN, WLS
	High drop-out rates from TVET	14 (41%)	7	7	AT, BD, BR, CA, CH, CO, DK, IN, KE, NO, NZ, SCT, SV, TN
	Poor alignment between TVET provision and employers' needs	14 (41%)	6	8	AU, BD, CA, CO, GR, HR, IN, JP, KE, MK, NG, NZ, PE, SV
	Shortage of employers offering training placements	14 (41%)	9	5	AU, BD, CA, CO, DK, ENG, IE, JP, KR, LK, NO, NZ, PE, SV
	TVET options do not lead to educational progression	12 (35%)	4	8	BD, BI, BR, CA, CM, IN, LU, NZ, PE, SV, TN, USA
	Compulsory assignment of academically challenged students to TVET	12 (35%)	8	4	BI, CA, CH, HR, KR, LK, LU, MK, NZ, PL, TN, USA

Note. Based on 34 countries (36 responses in total; New Zealand's three responses are combined into one country-level entry here — see Introduction and methodology). All rows come from Q24 (multiple choice), except the age of pathway selection, which comes from Q26 (one country did not answer). Income groups follow the World Bank classification (FY2027). Country codes are listed in the Appendix.

From Table 2, the following observations can be made:

1. **Perceptions:** the most widely reported barriers concern perceptions of TVET. Around three quarters of respondents point to parents' views of TVET and to the influence of gender stereotyping on pathway choices, with almost identical shares across country income groups.
2. **Career development support:** Almost two thirds of respondents report that school staff lack knowledge of TVET pathways, and around half report a lack of career

development services for those considering TVET. These gaps are reported more often by middle- and low-income countries: for example, 9 of 13 middle- and low-income countries (69%) report that career practitioners lack knowledge of TVET, against 7 of 21 high-income countries (29%). With 13 countries in the smaller group, each country represents about 8 percentage points, so these differences should be read with caution.

3. **System design:** challenges such as early pathway selection, limited progression routes and weak alignment with employers' skill needs are reported by between a third and over half of respondents. Limited progression routes and weak alignment with employers' skills needs are much more often reported by middle- and low-income countries than by high-income countries. The shortage of training placements and the compulsory assignment of students to TVET are reported at similar rates across all country income groups.
4. **Adult learners:** falling numbers of adult learners is rarely identified as a challenge (England, Japan and Sri Lanka). Several countries describe gaps in adult guidance (section 3.5), and support for lifelong learning receives the lowest agreement of the four Q23 statements.

Some respondents note a distance between policy and practice:

- **Greece:** the response states that, although national policy outlines the objective of public career guidance services, "in practice these services do not adequately meet existing needs".
- **Canada:** career-related learning in the curriculum depends on local implementation.
- **Chile:** a careers guidance subject exists in the school curriculum, without a robust system behind it.

Responses describe different roles for career guidance when policy seeks to increase participation in TVET to meet labour market demand. Some responses describe guidance as a lever for recruitment into priority areas:

- **Norway:** counsellors "are encouraged to help the recruitment of candidates for TVET".
- **Kenya:** Offices of Career Services "actively orient students toward high-demand, practical tracks".
- **Croatia:** career guidance is described as contributing to "stronger enrolment in vocational programmes aligned with economic priorities".
- **Luxembourg:** career services "steer workers toward high-demand fields like IT and the green transition".
- **Cameroon:** career services are described as ensuring that public training resources fund skills that employers want to hire.

Others stress that choices should rest on individuals' own interests. India calls for learners to choose "based on their interests, abilities and aspirations rather than social perceptions or limited information", and Tunisia makes a similar point. The 2019 Symposium raised a related question about the boundary between a career practitioner offering impartial guidance and acting as an advocate for government policy and labour market demand (McCarthy & Borbély-Pecze, 2019): what are the boundaries between promoting policy

priorities and supporting individuals to make choices aligned with their own interests and aspirations?

Some responses describe both roles. Croatia describes guidance both as reducing mismatches between learners' interests, training participation and labour market demand and as contributing to enrolment in priority programmes. The Māori New Zealand response connects learning and work with identity, community, enterprise, and service to the community. The resolution of competing tensions between individual interests and aspirations, community and cultural expectations, labour market needs and demands, government TVET and skills policies, and the role of career services remain an open question.

5. Summary conclusions and key questions

The overall picture emerging from the country reports is that policies for career guidance and career services have a very important role to play in supporting learners' choices of TVET at any age. However, this role is not fulfilled due to many factors both within the control of career services and outside of their control. In the first instance, career practitioners' ignorance of TVET pathways and occupations makes it difficult for them to support learners' choices. This can be corrected through appropriate initial and continuous professional development (CPD) training in career guidance. Such knowledge would also help them to combat learners' and parents' perceptions of TVET pathways and occupations and the gender stereotyping of these. Given that career practitioners (and school staff) in many countries obtain practitioner qualifications through the higher education system, it's almost self-reinforcing/self-repeating that they are more comfortable with helping learners access higher education pathways than TVET. This must change. There are other factors outside the control of career services that inhibit the uptake of TVET by learners. These include the alignment of TVET with labour market needs and demand; the transfer and progression pathways within TVET and between TVET and other forms of education e.g. higher education; the provision of career learning support and opportunities within the education and TVET systems and institutions; the compulsory assignment to TVET of learners who show weak academic performance and the age of such assignment; the shortage of employer training placements; weak labour market information loops to TVET providers and career services, including TVET destination data; the existence and usage of RPL; the availability of local and culturally appropriate support especially in rural areas and in countries with high participation in informal economies; and the policy mission given to career services. While these are factors outside of their control, it seems logical that career services have a wider role to play in their amelioration and that this needs to be addressed both in their missions and role descriptions and in their initial and CPD training. Missions and roles vary according to national social, economic and cultural policies and contexts and the initial training of practitioners should reflect that. Finally, the country reports show that such amelioration is most likely to happen where policy and systems for career guidance are fully integrated with policies for TVET and skills development.

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Appendix. Country codes

Table A1. Country codes used in this synthesis

Code	Country	Code	Country
AT	Austria	KE	Kenya
AU	Australia	KR	South Korea
BD	Bangladesh	LK	Sri Lanka
BI	Burundi	LU	Luxembourg
BR	Brazil	MK	North Macedonia
CA	Canada	NG	Nigeria
CH	Switzerland	NO	Norway
CL	Chile	NZ	New Zealand
CM	Cameroon	PE	Peru
CO	Colombia	PL	Poland
DK	Denmark	SCT	Scotland
ENG	England	SG	Singapore
FI	Finland	SV	El Salvador
GR	Greece	TN	Tunisia
HR	Croatia	USA	United States of America
IE	Ireland	WLS	Wales
IN	India		
JP	Japan		

Artificial Intelligence (AI) Declaration

The preparation of this synthesis paper involved the use of generative artificial intelligence tools to support aspects of drafting, language editing, structure development and the synthesis of information. All substantive analysis, interpretation of survey responses, identification of themes, policy conclusions and final editorial decisions were undertaken by the authors. Responsibility for the accuracy, interpretation and conclusions of the document rests entirely with the authors.