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MAPPING VOCATIONAL EDUCATION AND TRAINING GOVERNANCE IN ISRAEL

GEMM
GOVERNANCE FOR EMPLOYABILITY IN THE MEDITERRANEAN

This project is funded by the European Union

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Contents

EXECUTIVE SUMMARY

The mapping and peer review of technical and vocational education and training (TVET) governance in Israel was conducted by the local expert of the European Training Foundation (ETF) working with the national committee of the Governance for Employability in the Mediterranean (GEMM) project. This final report was prepared for the ETF by an international expert. The governance issues investigated are (i) management of the system, (ii) finance and funding, and (iii) quality assurance. At the request of the national committee the coverage of this report is limited to initial vocational education and training (IVET).

The TVET system has some strongly centralised elements. In particular, national examinations and assessments, the curriculum and text books, and the school inspection system all fall within the central control of the two main ministries that are engaged in TVET provision. On the other hand, intermediate stakeholders and training providers are both entitled and encouraged to undertake initiatives, not least in the field of teaching and learning. This means that both in the framework of regulations and in practice the education networks, local authorities and the training providers have a significant element of decentralised authority. It can be argued that the centralised provisions mentioned above serve to provide a quality framework for the TVET system as a whole, in which partners can take a significant amount of responsibility for good performance and change.

Nevertheless, the evidence is that equity and the improvement of opportunities for disadvantaged groups pose major challenges. In an ethnically and religiously diverse society, young and female Arabs experience serious disadvantage in the labour market, while orthodox Jewish groups (particularly males) are marginalised. What is more, Israel is an ageing society with a pressing issue to resolve: how to provide younger people with the skills they need to replace older people in the labour market and with the skills to take on new kinds of jobs in an economy that is among the most innovative in the world.

TVET governance is fragmented, even though most provision is made in the public sector. The Ministry of Education and the Ministry of the Economy maintain, manage and finance two different, distinct and parallel systems of TVET. There is no formal mechanism or requirement to coordinate the work of the two ministries, so that they provide separate systems with no hierarchical relationships. Each of the ministries also operates through its own district offices.

Education networks are a particular feature in the organisation and management of groups of schools across the country. About 40% of vocational students are enrolled in programmes in schools managed by the largest networks (ORT and AMAL). Both these networks are prominently engaged with the ministries in discussions about and arrangements for the governance, management and reform of TVET, and both undertake considerable initiatives in aspects such as how the curriculum is taught, continuing training of teachers and funding arrangements, thus contributing to an innovative culture across education and training.

The local authorities also have a significant role in TVET organisation. They own the schools that come under the jurisdiction of the Ministry of Education and have some funding responsibilities.

TVET providers (the schools have come under both the ministries, including the apprenticeship arrangements made by the Ministry of Economy) are required to conform to the regulatory framework covering examinations and tests, inspection and curriculum. Even so, 20% of the curriculum is at the discretion of the school/provider, and in other respects schools are both permitted and encouraged to engage in initiatives and an innovative approaches to teaching and learning. Except in apprenticeships, little use is made of work-based learning.

Employers also have a positive and innovative role. The Manufacturers' Association of Israel is a prominent participant in a wide range of TVET policy development, implementation and reform. In addition to significant and frequent informal contacts, the Manufacturers' Association is recognised by the government as the representative organisation of all the industrial sectors in the Israeli economy. It is often called on by government to engage in training issues, and has built up its own organisation to handle (to some extent) TVET issues and has a considerable presence in national forums. The trade union federation (Histadrut) is currently less active.

A matter that has received considerable attention is that the collaboration between the ministries, the Manufacturers' Association, and the other stakeholders is ad hoc, if extensive. The Manufacturers' Association has proposed, with the support of the union side and the education networks, that a public council to promote VET should be established. In their view this should have a significant role in defining strategy and policy, and developing plans for advancing VET, promoting research on VET, and ensuring employers' active involvement. The government supports this initiative.

There are three main sources for financing TVET In the case of the Ministry of Education: the government, the local authorities and the providing networks. Based on established formula, the Ministry allocates finance to different localities and schools via the districts. Local authorities, who have to make provision for infrastructure and equipment, can add to the national allocations. In addition, the provider networks have independent sources of finance and they may contribute funding to their schools in direct terms or in terms of teacher training or introducing initiatives, etc. In the case of the Ministry of Economy, the main sources of finance are the government and the providing networks. TVET provision provided by the Ministry of Economy is more closely tied to the labour market and employment, including apprenticeship schemes, and in this case the education networks and also larger employers contribute towards the costs, often through schools that are operated on their premises.

Some 20% of financing for education across the whole system comes from households, but this is more significant in higher education than in TVET. The Ministry of Education approves specified programs and financial resources to promote TVET among specific target populations, namely ultra-Orthodox Jews, Bedouins and Arab girls. Though operating separately, both the main ministries use a similar formula for allocating resources to providers. Each ministry manages its own budget. Funding is distributed to TVET providers through a per capita budget approach that differentiates according to the estimated cost of providing the different programmes. The budget per student is calculated according to the tariff for the curriculum of the specified program. The total budget per class is determined by the number of students multiplied by the budget per student. In addition, funding is allocated for projects that meet identified special needs, and for new initiatives.

Quality is identified as the ability of the education system to give students the best preparation for their employment as adults while responding to the needs of economy and society The part of the system that remains highly centralised concerns standard setting and quality assurance of the system through the processes and procedures described earlier: national examinations and assessment, curriculum and inspection.

A notable gap in making effective quality assurance provision for TVET is the lack of a useful system of labour market information that is available to education and training planners. Israel collects data on the labour market including data on job vacancies and participates for example in the international labour market survey. However, although some of this data is used for local or sectoral purposes, there is no formal national mechanism for processing the labour market data to make it accessible to education and training policy makers for the purposes of planning and supplying education and training.

A self-evaluation by the GEMM national committee identified that there are clear opportunities for TVET to perform its economic and social roles in useful and significant ways. Threats highlight the risk of continuing to operate a system of governance in which social dialogue is rather limited, dependent on particular advocates (i.e. is personalised) and is not systematic. Shortages of teachers and funding also threaten to undermine the success of TVET governance and reform.

The report contains several recommendations, including the following:

- As a matter of priority, coordination between the major stakeholders should be improved through the establishment of a coordinating council or committee, with a remit to consider and make recommendations on strategic as well as operational issues. Dialogue and partnership with the social partners and in particular with employers should be placed on a more formal and systematic basis. All stakeholders should maintain a key focus on combating the major identified aspects of inequality and disadvantage that affect young people, women and minorities in the population.
- The Manufacturers' Association and the trade union confederation should consider how they can each strengthen their capacity and organisation for handling TVET issues at all levels and through the stages of the policy process.
- The Ministry of Education and the Ministry of the Economy should actively engage local authorities, social partners and other community organisations in local initiatives and networks that help to both meet local labour market skills needs and support the employability of disadvantaged groups.
- An appropriate organisation should analyse urgently the kinds of skills and labour market needs analysis that TVET planners and managers need to plan effectively and review the range of skills identification and anticipation methodologies that can be used. This should result in recommendations for an improved labour market information system that can be constructed mainly on the basis of data that is already available in the country.

INTRODUCTION

This report describes the governance of TVET in Israel with particular reference to TVET management, how finance and funding are organised, and the extent to which quality assurance approaches are being harnessed. The report will go on to consider which improvements to aspects of TVET governance can be made and how these can be introduced. The purpose is to help to secure improvements in TVET policy and implementation. The report is based on the expectation that TVET – alongside other education sub-systems and productive sectors – has an active and innovative role to play in economic, labour market and social developments in the Israeli context. After an introduction locating TVET in Israel in its wider context, the report describes and further analyses the governance of VET. This report is based on the work that was carried out by the national committee of ETF GEMM project in Israel and other available sources.

Israel has a population of just over 8 million people, of whom just over 6 million are Jews (of whom about 73% were born in Israel), while Arab citizens of Israel comprise just over 20% of the population and are mostly Muslim[1] Druze and large numbers of migrant workers make up most of the rest of the population. Over 90% of the population lives in urban areas. Large numbers of Jewish people live in East Jerusalem and in settlements in the Palestinian territories[2]. With high levels of life expectancy and low levels of infant mortality, the population is expected to continue to grow, but eventually to be an ageing population. In administrative terms, Israel and the occupied territories are divided into seven districts, each (except Jerusalem) comprising several sub-districts.

In terms of economic performance and human resource development, Israel has improved rapidly and ranks – in many respects highly – among the advanced economies. Economic growth has been strong over the last decade[3]. The Global Competitiveness Index 2013-14 ranks Israel 27th in the world ranking, behind Qatar, UAE and Saudi Arabia in the Middle East and North Africa region but well ahead of the other countries. Israel is identified as having a world-class capacity for innovation (third in the world) with a highly innovative business sector and some of the world's best applied research institutions. A favourable financial environment contributes to making Israel an innovation powerhouse. Challenges to maintaining and improving national competitiveness relates to the continued need for upgrading institutions (40th) and to the need for renewed focus on the quality of education. Poor educational outcomes particularly in maths and science (78th) are identified as a key issue. As in previous years, the security situation is identified as fragile and imposes high costs on the state and business[4].

The major industrial sectors include high-technology products, metal products, electronic and biomedical equipment, agricultural products, processed foods, chemicals, and transport equipment. Relatively poor in natural resources, Israel depends on imports of petroleum, raw materials, wheat, motor vehicles and production inputs, though the country's nearly total reliance on energy imports may change with recent discoveries of large natural gas reserves off its coast.

Israel is active in software, telecommunication and semiconductors development. There is a high concentration of high-tech industries. Israel is also a major tourist destination.

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[1] Israel Central Bureau of Statistics, *Monthly Bulletin of Statistics for Population*, 7 August 2013. Quoted in Wikipedia Israel

[2] Foundation for Middle East Peace, See for example 'Settlement Information', Retrieved from Wikipedia, March 2014

[3] OECD, 2010; and 2013

[4] Adapted from the Global Competitiveness Index 2013-14: Country Profile Highlights, p. 15, http://www3.weforum.org/docs/GCR2013-14/GCR_CountryHighlights_2013-2014.pdf

Israel's labour participation rate in 2012 was 71.5%, similar to the OECD average (70.9%)[5]. Israel's unemployment rate in 2012 was low (7%) compared to the OECD average (8.2%)[6]. In January 2014 Israel's unemployment rate was 5.9%[7].

In the UNDP's Human Development Index (HDI) Israel also ranks highly on the global scale and among economically developed countries. In 2012 Israel was ranked 16th (out of 187 countries), and showed steady improvements between 1980 and 2012 in the indicators used.

Average life expectancy at birth improved from just over 74 to nearly 92 years; expected years of schooling improved from 12.6 to 15.7 over the same period, and the mean years of schooling improved by two years. Personal gross national income per capita almost doubled from USD 14.5 thousand to USD 26.2 thousand over the same period. Israel's 2012 HDI level (0.900) is just below the average for the very high human development group, but above the OECD average, and comparable to Denmark and Switzerland. However, when HDI is adjusted for inequalities, the overall loss due to inequality in education and inequality in income brings down the position of Israel compared to Denmark, Switzerland and the OECD average. In terms of the HDI is associated gender inequality index, Israel's ranking is somewhat lower at 25th (out of 148 countries)[8].

That poverty, inequality and unequal opportunities in education and in the labour market remain a major concern is underlined in OECD's 2010 and 2013 reviews of labour markets and social policy[9]. At first glance it seems that Israel enjoys low rates of NEETs (young people not in education, training or employment) is one of the lowest in the OECD. In 2012 the unemployment rate of Israeli youth (aged 15-24 was 12.1%, compared to the OECD average of 16.3% unemployed. Israel's youth labour force participation rates (49.5%) are also higher than the OECD average (47.4%).However, one of the factors that contribute to these high rates of youth employment is that since 2012 the Israel includes youth during their compulsory military service as part of the Israeli labour force[10]. If these young people were counted as NEETs, Israel's rate of NEETs would be one of the highest in the OECD[11]. 27% of 16-24 year-olds Israelis are outside the labour market and not in education (the highest rate among OECD countries)[12].

Moreover, Israel suffers from relatively high rates of poverty and income inequality[13]. The Israeli labour market is also characterised by a high rate of non-standard forms of work and income dispersion is among the widest in the OECD area. Poverty rates are the highest among Arab and Haredi minority groups[14]. Both groups (and specifically Arab women and Haredi men) suffer from low rate of participation in the labour force (including high rates of NEETs). Only 27% of Arab women are employed. Both groups suffer from lack of employment skills which are (at least partly) a result of poor education systems[15].

In 2010 OECD's view was that the general Jewish population had poverty and employment rates similar to those of OECD countries. On the other hand, Arabs and ultra-Orthodox Jews, or Haredim,

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[5] OECD Stat Extracts: http://stats.oecd.org/Index.aspx?DatasetCode=LFS_SEXAGE_I_R
[6] OECD, 2014, p. 17
[7] Central Bureau of Statistics: www.cbs.gov.il/reader/?MIval=cw_usr_view_Folder&ID=141
[8] Adapted from the UNDP HDI Human Development Report 2013 on Israel: http://hdr.undp.org/sites/default/files/Country-Profiles/ISR.pdf
[9] See OECD Reviews of Labour Market and Social Policies: Israel, 2010 and 2013: www.oecd.org/els/soc/israel.htm
[10] OECD, 2013, p. 18
[11] OECD, 2014, p. 30
[12] OECD, 2014
[13] OECD, 2013
[14] OECD, 2013, p. 17
[15] Ben-David, 2014

populations tend to have larger families, poor educational outcomes and low employment rates. As a result, just over half of Arab and Haredi families lived in poverty. Almost half of all children entering primary school in Israel come from one of these two groups, therefore policy changes were needed to prevent future generations of Arabs and Haredim from being scarred by continuing disadvantages, also to the detriment of the economy. The 2013 review indicates that the Israeli government has set up many new initiatives to deal with poverty and social exclusion among the Arab and Haredi populations.

There have been important employment gains among Arab women, and in particular the Haredi, but the challenges require a sustained effort across a broad range of policy areas. Thus, in the view of OECD, the scale of the Israeli policy responses to date appears small relative to the enormity of the task at hand, and further progress will depend on continued and expanded investment in effective anti-poverty measures. The most recent OECD report on Israel (OECD, 2014[16]) confirms both that these groups are in a position of considerable disadvantage and marginalisation, and that the ageing of the population and changes in the labour market risk a significant national skills shortage.

For children brought up in Israel, school attendance is mandatory and free from age 6 to 18. Formal education starts in primary school (grades 1 to 6) and continues with intermediate School (grades 7 to 9) and secondary school (grades 10 to 12). Most schooling is public and there are few private schools. Israel enacted compulsory education to children between the ages five and eighteen. Children from the age of three are entitled to free education. 90% of Israeli youth have at least upper secondary qualifications (higher than the OECD average of 82%). The majority of secondary education students (60%) enrol in general academic upper secondary education, one-third opts for technological programmes and only 3% enrol in industrial schools or apprenticeship pathways[17]. Higher education in Israel includes seven campus universities, an Open University, and 50 academic colleges and colleges of education[18]. There is no universal right to vocational training, and due to budgetary constraints the right is highly limited[19].

[16] OECD, 2014, OECD review of VET: A skills beyond school review of Israel
[17] OECD, 2014, p. 14
[18] OECD, 2014, p. 15
[19] OECD, 2014, pp. 35-36

1. MAPPING VOCATIONAL AND TRAINING GOVERNANCE – KEY POINTS

The structure of secondary schools is quite complex, and is divided along religious and language lines. There are over 1 400 Jewish schools. Of these, 660 are government schools, just over 300 are government religious schools and more than 550 are Haredi schools. There are almost 250 Arab schools, and in addition there are just fewer than 50 Bedouin schools and some 27 Druze schools. For grades 10 to 12 approximately 60% of students elect or are selected to continue with general education, while approximately 40% of the age cohort continues along technical and vocational progression routes. In the technical and vocational pathways, some 137 000 learners continue in schools provided by the Ministry of Education. Their programmes are divided into science and engineering (approximately 46 000 students), technical studies (approximately 49 000 students) or vocational studies (approximately 42 000 students). This leaves some 13 000 students for whom the Ministry of Education does not make provision and the students are taken into provision made by the Ministry of Economy[20]. The language of instruction in the different types of school corresponds to the students' mother tongue.

1.1 General mapping of the TVET system management

In several specific respects TVET governance is centralised, while in other respects functions and active responsibilities are devolved to local authorities, provider networks and the schools. The school curriculum and textbooks, the national assessments and examinations for matriculation and the system of national inspection are all under the central control of the respective ministries. This is intended to provide a public guarantee of quality, irrespective of the type of school that a learner attends. In other significant respects the local authorities, the networks of education providers and the establishments that provide TVET have considerable management flexibility and autonomy. A description of the main TVET stakeholders and their functions follows.

At the national level, the two ministries mentioned above (Ministry of Education, Ministry of Economy[21]) develop, maintain and finance the distinctive systems of TVET that are established in the public sector by government.

Thus, in the case of the Ministry of Education, the ministry has responsibility for overall planning and management of different technical and vocational strands of TVET. It is directly responsible for the management and reform of curricula and for this purpose each main subject area has an advisory committee that includes representatives from the academic world, the manufacturers, the trade unions, other relevant ministries and also of teachers in the field. These functions are managed by the Science and Technology Administration (a division or directorate of the Ministry).The ministry is also responsible for setting the national assessments and examinations. This is done (for both ministries) through a quasi-independent government authority (the National Authority for Measurement and Evaluation in Education – RAMA) reporting directly to the Minister of Education. The ministry provides the National Inspectorate. It is also responsible for the training and standards of teachers and trainers and for the overall management of training providers.

[20] Adapted from ETF, 2013, 'Mapping of VET education policies for social inclusion and social cohesion: Country report Israel', and from data in the mapping conducted by the GEMM national committee.

[21] Until 2012 responsibility for the schools that are now under the Ministry of the Economy came under the management of the Ministry of Industry, Trade and Labour. The handover is not much discussed in the literature and face-to-face meetings, and appears to have been relatively seamless.

For its area of provision the Ministry of the Economy has parallel but separate responsibilities, and there are significant differences in the ways that the two ministries operate. There is no formal mechanism or requirement to coordinate the work of the two ministries, so that they provide 'two separate systems with no hierarchical relationships[22]'. The recent OECD report (2014, op. cit.) also notes that the two ministries operate on separate lines.

The management of activities by the Ministries of Education and Economy are divided according to districts. The national office of each ministry oversees all district activities. Each district includes workers engaged in technological and vocational education and must comply with the standards set by to the national office.

A notable feature of TVET provision is the networks of TVET providers that organise and manage many of the schools. There are numerous such organisations, and the principal ones in terms of the numbers of schools that they manage are the ORT network[23] and the AMAL network[24]; about 40% of vocational students are enrolled in ORT and AMAL programmes. As well as managing networks of schools, both these networks are prominently engaged with the ministries in discussions about and arrangements for the governance, management and reform of TVET. ORT is Israel's largest educational network of schools and plays a leading role in Technological Education. The network of schools managed by ORT includes 100 000 students and 7 500 staff in 200 high schools, industrial schools, educational centres, and technical, engineering and academic colleges in 55 municipalities across Israel. The AMAL educational network (established in 1928) is also a leading school network, with 128 educational institutions including high schools, junior high schools and colleges and with a total enrolment of over 40 000 students. AMAL provides an educational-academic framework with an emphasis on technology, the sciences and the arts for all strata of the population from high-achieving young people of Israel's elite to young people who are at risk. Both networks place emphasis on innovation in developing new approaches to teaching and learning in the schools that they manage. The educational networks are national (and international) organisations that manage networks of TVET provision, so that their management activity crosses the regional and local boundaries and has a strong impact at the level of TVET provision in schools, colleges and centres for both ministries. Other, smaller networks also manage smaller numbers of schools.

The main educational networks are described in **BOX 1.1**.

[22] ETF, Torino Process analytical framework for reviews of vocational education and training systems and policies in Israel, September 2012, p. 5

[23] For more information see http://en.ort.org.il/

[24] For more information see www.amalnet.k12.il/Amalnet/

BOX 1.1 THE EDUCATION NETWORKS

ORT educational network

ORT Israel was established in 1949 as a public benefit company and it is Israel's largest and leading Technology and Science Educational Network.

ORT Israel operates nationwide over 200 institutions in 55 local authorities, including comprehensive middle and high schools, industrial vocational schools, education centres, technology colleges and academic colleges of engineering. Some 30% of all engineers and technicians in Israel are ORT Israel graduates.

The wealth of experience and knowledge accumulated by ORT Israel is frequently utilised by the Ministry of Education and the Ministry of Economy for development of innovative methodologies and advanced curricula for the entire Israeli education system.

ORT Israel operates one of the largest Research & Development and Training Centres for Technology and Science education in the world. The R&D centre specialises, among others, in creation of tailor-made content for world-class educational programmes and projects, including innovative curricula for robotics, nanotechnology, biomedical engineering, brain science, space and aviation.

Over the years ORT Israel has become a strong and well-respected brand in the international arena, establishing Israeli export branch of innovative educational solutions and leading projects all over the world, including America, Russia, Africa and Europe.

Description provided by Ort network

Amal

The Amal educational network (est. 1928) is a leading school network in Israel, with 128 educational institutions across the country, including high schools, junior high schools and colleges, with a total enrolment of over 40 000 students. Amal provides an educational-academic framework with an emphasis on technology, the sciences and the arts for all strata of the population from high-achieving young people of Israel's elite to young people who are at risk. The Amal network is motivated by a vision of innovation and entrepreneurship. As part of an innovative step, Amal operates a unique model of innovation centres in the periphery, in order to train business and social leaders. The centres focus on developing innovation, original thinking and creativity skills, and enables students to specialise in new media, high tech, computers and biomed. Amal is a specialist in project-based investigative learning. During this year, learning via projects was implemented in 10 schools and led to a change in the evaluation.

Description provided by Amal network

Atid

Atid is a for-profit science and technology national network of schools and colleges. The Atid network currently manages 11 colleges, 28 secondary schools, six middle schools and two youth villages. These institutions enrol 25 000 students each year, including teenagers and adults. The network operates institutions supervised by the Ministry of Education and the Ministry of Economy.

Source: http://gafrandor.wix.com/atid2

Amit

Established in 1925, Amit is a national non-profit network of religious Zionist education. The network manages approximately 100 institutions that teach the Torah, science and technology.

Source: www.amit.org.il/Pages/default.aspx

Although a formal system of social partnership has not been established, employers are represented through the frequent involvement – both formal and informal – of the Manufacturers' Association of Israel in a wide range of TVET policy development, implementation and reform activities. In addition to significant and frequent informal contacts, the Manufacturers' Association of Israel is recognised by the government as the representative organisation of all the industrial sectors in the Israeli economy. It represents the country's larger employers and their organisations and thus makes a significant contribution to economic, labour market and also social and educational decisions. It is often called on by government to engage in training issues, and has built up its own organisation to handle TVET issues to some extent and has a considerable presence in national forums.

Its activities range from lobbying to co-funding initiatives. It aims to increase the number of students learning in the TVET system through sponsorship and engagement of employers and businesses across a wide spectrum of the economy in a range of TVET programmes, and to improve the quality and relevance of programmes. Thus, for example the Manufacturers' Association has representation on the subject committees mentioned above in connection with the Ministry of Education's curriculum development, and it has established induction/training arrangements for its representatives who take part in the subject committees[25]. In spite of the extent to which the Manufacturers' Association is involved in informal and issue by issue engagements with the TVET authorities and networks, the Association has expressed the view that more formal and systematic partnership arrangements would improve TVET governance and improve on the robustness of the current, more ad hoc arrangements.

BOX 1.2 describes the Manufacturers Association.

BOX 1.2 THE MANUFACTURERS ASSOCIATION OF ISRAEL

Founded in 1921, the Manufacturers' Association is the sole representative body of all industrial sectors in Israel , and is the country's largest employers' organisation .Its objectives are to promote the interests of the industry among policy makers and members of the Association; to enhance and promote the image of the industry; to gain influence in shaping foreign trade policy and in developing infrastructure; to encourage domestic and foreign investment in the industry and the economy; and to reduce social and economic inequalities. There are approximately 2 000 members, from the private, public, collective and governmental sectors. The association members output is close to 90% of the total Israeli industry production.

Source: website of the Manufacturers' Association, www.industry.org.il/

Israel's largest federation of trade unions is Histadrut[26]. As well as being a trades union, Histadrut has in the past been an important employer in its own right. Histadrut has government recognition and participates in government consultations, etc. on TVET. But it does not take a prominent role, nor does it have a strongly organised infrastructure of its own to develop policy and participation on TVET issues.

The vertical level of governance that sits between the national arrangements and TVET providers is also significant. The districts and local authorities have s significant role. The local authorities, in particular, are legally the owners of the schools that come under the Ministry of Education, and significant responsibilities are delegated to this level. This means that the local authorities have considerable powers to provide additional funding (which varies by local authority), to interpret the nationally established curriculum and to establish local innovations, initiatives and partnerships. When

[25] Adapted from ETF, Torino Process, September 2012, pp. 7 and 14
[26] www.histadrut.org.il/ (the website seems to be available in Hebrew only)

understanding the sources of innovation and initiative in the TVET system, the role of local authority is significant; the local authority is an important stakeholder.

This extent of flexibility in the system and of decentralised decision making on some management issues and for initiatives to be taken also means that the TVET schools and colleges also have a zone of activity (and trust) in which they are enabled to take initiatives, form partnerships, respond to local needs, etc., rather than simply carry out centrally directed instructions. The extent of local management is also conducted and nurtured in many cases under the umbrella of one or another of the TVET networks described above, and encouraged by the lead ministries. Currently, for example, the Ministry of Economy is looking at ways to incentivise to schools to be innovative in their approaches to teaching and learning.

Thus, the overall system of management of TVET is conducted in two parallel but distinctive systems that are organised by the Ministry of Education and the Ministry of the Economy respectively. Inspection, the curriculum and the national examinations are all strictly under centralised control (though separate but parallel for each ministry). A key feature of the governance system for the provision of TVET and for all the details of how the schools and colleges are run is that education networks assume directly the management role in many cases, and the local authorities also have significant powers and responsibilities. The Manufacturers' Association is also an important stakeholder on an extensive – though usually issue-by-issue – and often informal basis. All this means that schools, centres and colleges providing TVET have to some extent an operational autonomy that allows, even encourages, them to take initiatives, under a centralised umbrella of curriculum, inspection and examinations.

The roles of the Israeli defence forces in TVET should also be borne in mind as an established part of the transition between schooling and adulthood for many young Israelis, particularly young Jewish males, as an employer and also as a provider of training.

An Education and Training Task Force operates at government level, but little information about its operation has been revealed through the country study. The Manufacturers' Association has proposed, with the support of the union side and the education networks that a public council to promote VET should be established. In their view it should define strategy and policy, define plans for advancing VET, promote research on VET, and ensure incentives to employers to become actively involved. The government supports this initiative. Since the proposal is supported by the main stakeholders, the task now is to develop the right architecture and mandate for the body that is created.

TABLE1.1 GOVERNANCE AT DIFFERENT LEVELS OF THE TVET SYSTEM – AN OVERVIEW

Entity	Main actors	Functions	Level of operation
Responsible ministries	Ministry of Education Ministry of Economy	Strategic, policy development, system governance, finance and quality assurance, teacher standards and training Centralised control of curriculum, inspection and national examinations	National; each ministry has district offices Some functions devolved to education networks, local authorities and TVET providers
TVET provider networks	ORT AMAL	Following ministry requirements, manage networks of schools, including day-to-day management, initiatives and developments, some CPD and funding	Operate at the national, intermediate and TVET-provider establishment levels
Regional and local authorities	Regional or district authorities Local authorities	Draw up more local plans for implementing national programmes and requirements for IVT Contribute to initiatives, funding, and partnerships	Function at the intermediate territorial level between national government, and schools and colleges
Social partners	Manufacturers' Association*	Consultative and initiative-taking roles, engagement with policy development and project implementation Involvement in teachers' professional development	Extensive but ad hoc engagement in a wide range of long and short-term policy and implementation issues at national and more local levels
TVET schools and colleges	Schools, colleges, training centres, etc.	Required to conform to national curriculum, inspection procedures and national examinations, but some autonomy in other respects	Engagement with local and network initiatives and partnerships as well as centrally-defined activity

(*) Histadrut is engaged to some extent, but does not seem to be a major actor in the way that the Manufacturers' Association is.

Source: Adapted from GEMM Governance Mapping Report, Section A

1.2 Finance and funding

1.2.1 Financing the IVET system

In the case of the Ministry of Education, there are three main sources for financing TVET. These are the government, the local authorities and the providing networks. Based on established formula, the Ministry allocates finance to the different localities and schools via the districts. Local authorities, who have to make provision for infrastructure and equipment, can add to the national allocations. In addition, the provider networks have independent sources of finance and they may contribute funding to their schools in direct terms or in terms of teacher training, introducing initiatives, etc. In the case of the Ministry of Economy, the main sources of finance are the government and the providing networks. TVET provision provided by the Ministry of Economy is more closely tied to the labour market and employment, including apprenticeship schemes, and in this case the education networks and also larger employers including the Israeli defence forces contribute towards the costs, often through schools that are operated on their premises. In this case the schools are not owned by the local authorities, but by the educational networks.

Overall it is estimated that some 20% of financing for education across the whole system comes from households, but on the basis of available data it is difficult to estimate the extent to which this occurs mainly in higher education, etc. There are no particular taxes or levies on employers, but the Manufacturers' Association and its members in different branches contribute directly to particular initiatives and skills development programmes.

The Ministry of Education approves specified programs and financial resources to promote TVET among specific target populations, namely ultra-Orthodox Jews, Bedouins and Arab girls.

1.2.2 Funding the providers, or budget allocation

Though operating separately, both the main ministries use a similar formula for allocating resources to providers. Each ministry manages its own budget. Funding is distributed to TVET providers through a per capita budget approach that differentiates according to the estimated cost of providing the different kinds of programme. The budget per student is calculated according to the tariff for the curriculum of the specified program. The total budget per class is determined by the number of students multiplied by the budget per student. In addition, funding is allocated for projects that meet identified special needs, and for new initiatives. This means that the allocation of funding schools is done through a formula approach, and is in this sense objective irrespective of the preference of particular managers or the kind of school being funded. As already indicated, budgets may be augmented by the education networks – in the case of the Ministry of Education schools by the local authority and in the case of Ministry of Economy schools through provision made by employers.

At this point, it has not been possible in this review to quantify the financing of TVET, nor specific amounts allocated to different aspects of provision. The ETF Torino Process analytical framework report (September 2012) indicates that in 2008 Israel's expenditure on educational institutions as a whole is relatively high, at 7.3% of GDP compared with an OECD average of 6.1%. A note of caution is needed here in applying this to TVET, since the figure is a global one for education and training, and TVET in Israel is frequently stated to be under-resourced.

1.3 Quality assurance

A key theme of the mapping of governance of initial TVET in Israel is that the system is both dynamic and diverse. Initiatives and reforms to teaching and learning are encouraged at the different levels (national, local, and TVET providers) by both the main ministries involved and the intermediate actors who are actively engaged. These actors are private and public sector agencies such as the education networks, the local authorities and the Manufacturers' Association and its constituent organisations. The part of the system that remains highly centralised concerns standard setting and quality assurance of the system through three main processes: the definition of the curriculum (and control of textbooks), the setting and control of national examinations and the work of the inspectorate. In these respects the Ministry of Education and the Ministry of the Economy perform parallel functions that are not unified.

Although they operate separately, the Ministry of Education and the Ministry of Economy adopt similar definitions of quality in IVET: quality refers to the ability of the education system to give students the best preparation for their employment as adults while responding to the needs of economy and society[27].

[27] The information in this section is drawn from the mapping and analysis provided by the GEMM national committee and supplemented by the ETF Torino Process report dated September 2012, referred to above.

1.3.1 Forecasting skills needs and identifying gaps

Labour market information: there is an ongoing collection of data on the labour market including data on job vacancies. However, although some of this data is used for local or sectoral purposes, there is no formal national mechanism for processing the labour market data to make it accessible to education and training policy makers for the purposes of planning and supplying education and training, such that it meets present and future skills demands.

Vulnerable groups: similarly, there is no formal or systematic mechanism for collecting and processing data on the needs of vulnerable groups. Nevertheless, specific groups such as young people at risk, women from minority groups and Haredi are prioritised in terms of spending and initiatives.

Facilitating labour market transition: most Ministry of Education schools do not include work experience as part of the curriculum. These schools frequently do not take measures to facilitate and monitor students' transition into the labour market. Programmes run by the Ministry of Economy include apprenticeship and other programmes of work experience, and where programmes combine work and study, support is provided by school staff.

1.3.2 Qualification and curriculum standards

The ministries are the main bodies responsible for the qualifications, curriculum and examinations. For reform and renewal of the curriculum, for example, the Ministry of Education has a series of specialist committees covering the relevant professions. Academic representatives, the Manufacturers Association, the relevant trade union, other relevant ministries and representatives of teachers from the field are all represented. The committee has a responsibility for quality assurance for the curricula and for developing curriculum requirements for the particular area. The National Authority for Measurement and Evaluation in Education (RAMA) constructs and administers assessment of student achievement and the pedagogical settings, and the school matriculation examination.

The ministries and the Manufacturers' Association are working together to increase the involvement of employers in determining the knowledge and competencies needed as part of TVET provision. Although exploration is taking place, the mechanisms needed have not yet been fully worked out or implemented.

As already indicated, all national examinations are under the control of the ministries and school matriculation examination is under the authority of the Ministry of Education. The inspectorate has a key role in ensuring that appropriate standards are set and adhered to. The Ministry of Education has a single inspectorate for all its schools, as does the Ministry of Economy.

1.3.3 IVET teachers

The qualifications to teach are determined by the respective Ministry. In the Ministry of Education and the Ministry of Economy each teacher must have a professional qualification, for example as an engineer, and must receive a license to teach IVET subjects from the Ministry. The ageing of the TVET teacher cohort is currently creating replacement problems.

The ministers also require TVET teachers to undertake continuing professional development, and in this they are supported both by the education networks and at times by the Manufacturers' Association.

1.3.4 Quality assurance of IVET provision in the schools and colleges

Responsibilities for the quality assurance of TVET providers are shared between the Ministry, the local authorities, the providing networks and schools. The Ministry is responsible for the overall supervision of the schools, and ensuring that they follow mandatory requirements, and this is enforced through inspections and evaluation. The education networks also have their own quality mechanisms.

This description of quality assurance approaches, functions and responsibilities is amplified in the note on quality assurance has provided by the Ministry of Education in the recent ETF Torino Process review[28].

BOX 1.3 ASPECTS OF QUALITY ASSURANCE PROVIDED BY THE EDUCATION MINISTRY

Detailed aims and working plans for the Science and Technology Administration of the Ministry of Education exist at national level. The curricula are created according to objectives and aims, and unique projects are also created in order to achieve these aims, such as the TVB programme, the Leap into Industry projects and the 'scientific and technological reserve'. At the regional or more local level each district of the Ministry of Education creates a working programme from which the school programmes are derived. There is a match between the national programs and those of the districts, with the district level being responsible more for integration and application. Each school then creates a detailed annual working programme that includes aims, measurable objectives and implementation stages.

The Ministry of Education, through inspectors and instructors, checks the implementation of each of the projects and programmes, in cooperation with other stakeholders. Thus, for example, there is some degree of linkage with the Manufacturers Association through the steering committees of each of the programmes on which their representative sits. These committees also include representatives from the large education networks, from the rural cooperative education systems and sometimes from local government.

The National Authority for Measurement and Assessment in Education (RAMA) is the lead body for measurement and assessment. It deals with the creation and provision of assessment and measurement tools for the system as a whole, including efficiency and growth tests for schools (that is to say, attainment tests) and the climate and pedagogical environment tests that accompany them, the international tests, and assessment tests for national educational projects. RAMA is established as an independent intra-government authority and reports directly to the Minister for Education.

Quality assurance is undertaken by subject inspectors, school inspectors, the examination system and assessment during and at the end of each academic year. The examinations include assessment tests, matriculation and vocational examinations.

Evaluation of reforms takes place at the end of each year, and every 10 years major reforms are evaluated and revised.

Source: Adapted from ETF, Torino Process analytical framework, 2012, pp. 33-34

It is worth noting that two committees are currently reviewing important aspects of vet provision. The national Education Technology Committee is headed by the Directorate-General of the Ministry of Education, while the minister of education is leading a review of the matriculation examinations.

[28] Source: ETF, Torino Process analytical framework, September 2012, pp. 33-34

2. ANALYSIS

2.1 Self-evaluation of TVET governance in Israel

The results of the mapping and self-assessment work call for further analysis of several of the main issues that have been raised. These are dealt with below, from Sections 2.2 onwards, with reference to the different TVET stakeholders, so that government and the other stakeholders can give these issues further consideration.

First, however, it is worth identifying the key points that the GEMM national committee has raised in its self-evaluation of TVET governance. This provides a view of where there is agreement of how significant matters stand, some indication of where there are conflicting views and some pointers for realistic and needed reforms to the approach to governance.

Self-evaluation was conducted through a SWOT analysis and through a survey of experts concerning a range of indicators assessing the effectiveness of current governance arrangements. Both these exercises were conducted face-to-face by the GEMM national committee early in 2014.

The SWOT analysis draws attention to several strengths and weaknesses in the current governance system. The following are identified strengths. TVET has developed advanced technology- and science-based education programmes and an innovative culture for change.

Ministries are willing to adapt provision to meet skills demands and are open and willing to cooperate will actors on both the demand and supply side. TVET has a range of qualifications that supports the employability of students at different levels, including disadvantaged groups. A range of programmes that suit different students exists, and approaches to curriculum and pedagogy are becoming more flexible and more personalised.

The weaknesses identified include the low social status of TVET compared to the general education pathway, and the high volume of teaching hours. The legal framework is weak. Teacher professional issues are a key concern, with a growing crisis in teacher recruitment and replacement and a lack of a proper framework for TVET teacher education and training. It is also difficult to keep workshops and other learning environments up to date and well equipped. Finally, the twin issues of rapid changes in the skills required of TVET graduates and the lack of effective, accessible mechanisms for TVET planners to use to identify and anticipate labour market skills demands are highlighted as weaknesses.

The self-evaluation through the SWOT analysis identifies that there are clear opportunities for TVET to perform its economic and social roles in useful and significant ways. Threats highlight the risk of continuing to operate a system of governance in which social dialogue is rather limited, dependent on particular advocates (i.e. is personalised) and is not systematic. Shortages of teachers and funding also threaten to undermine the success of TVET governance and reform. The full self-evaluation is provided below.

TABLE 2.1 GEMM NATIONAL COMMITTEE'S SWOT ANALYSIS OF TVET GOVERNANCE IN ISRAEL (ADAPTED)

Strengths	Weaknesses
1. Dynamic innovation in high technology – science based education. 2. The ministries administering the education systems are willing to adapt to the current and future needs of the economy. 3. Openness and willingness to cooperate with other bodies. 4. The structure of the curriculum is very interesting for science engineering and technology students (it includes scientific professions, specialisations and projects). 5. Employment mobility according to the needs of the economy and society. The professional certificate and experience often allow for a smooth integration into the job market for those who had difficulty before entering this system and/or those who come from disadvantaged populations. 6. Technological education, and especially vocational education, facilitates social and economic mobility – compared to non-technological and non-vocational education. 7. Addressing differences between students – operational flexibility. 8. The technology education teachers create a personal connection with the students. The teachers have the ability to give varied responses according to the students' need. 9. In the technological and vocational education the classes are small allowing for a friendlier and more personal learning environment. **10.** Diverse range of study programmes.	1. Low status. 2. Parents typically do not encourage their children to study vocational education. 3. High number of studying hours (40-50 hours per week). 4. Critical shortage of high quality teaching force due to difficulties in competing with the wages, employment diversity and status of jobs in industry or with other possible employers (at all levels of the world of work). Sometimes schools do not open a new programme due to shortage of teachers. The problem is more common in the vocational education. 5. There is no teacher training framework, in the technological and vocational education. 6. Technological and vocational education is not marketed effectively to the public. There is no advertising of the benefits. Not enough public relations. 7. There is no structured mechanism to forecast future needs. 8. Some workshops do not meet the basic professional standards. 9. Industry changes and it is difficult for the technological and vocational education to remain current. 10. The industry is not sufficiently involved. 11. There is no legislation to support technological and vocational education.
Opportunities	**Threats**
1. This is the century of science and technology. Thus, more students may opt to study technological and vocational education. 2. Opportunities for employment and higher wages may better in the technological and vocational education. 3. Technological and vocational education addresses the needs of diverse populations (at different levels). 4. The public atmosphere is in favour of technological and vocational education. There is a general atmosphere that encourages students to study technological studies which are in high demand in the academy and in the labour market. This presents an opportunity to develop these subjects in school. 5. The technological and vocational education offers opportunities for mobility and inclusion of special groups, particularly Arabs and ultra-Orthodox Jews.	1. The lack of social dialogue may harm the effectiveness of the technological and vocational education. 2. The policy is dependent on specific advocates who currently have a policy making mandate. Thus, any changes in the power structure may affect policy. 3. The expected reform in matriculation exams (including the cancellation of a significant part of them) may risk the external professional certificates which the students receive. The matriculation exams are the standard by which professional qualifications from various government offices are determined (e.g. Ministry of Economy). With no matriculation exams it may be impossible for other government offices to give professional certificates to technological and vocational studies graduates. 4. Lack of financial resources, primarily in the vocational education system.

Source: Prepared and endorsed by the GEMM national committee in 2014

In addition, the expert survey conducted through the GEMM national committee drew attention to several indicators that can be considered strengths in the current TVET governance system and other indicators that identify challenges that need attention. The indicators that scored most highly (i.e. positively) show that different government ministries and agencies and the different levels of government including the regional and local levels are actively engaged in TVET governance; and, governance practices comply with standards, regulations and procedures that are agreed by the different stakeholders.

The indicators that were most negatively self-assessed tend to reinforce some of the main issues that have been raised in this report. A low rating was given to the indicator that goals are formulated in response to shared concerns and identified policy gaps, whilst taking into account feasibility of resources for implementation. This seems to imply the need for an overall approach to policy development that better coordinates the main strands of TVET and the main actors in governance. A similarly low rating was given to the indicator that both hard regulation such as laws and soft regulation such as recommendations, opinions and agreements to cooperate are used effectively at each stage of the policy cycle. The discussion on this matter seems to have centred on whether the legal framework for TVET is sufficient and whether existing regulations can be carried out effectively. The third indicator that received a low rating indicates that the different actors at vertical and horizontal levels are not working in partnership to identify and anticipate labour market skills needs in order to shape TVET policies and reforms. This reflects the recognition that while data on labour market skills needs exists and is used in some local and sectoral TVET development, an overall and systematic approach to analysing and using labour market information systems and intelligence for the purposes of TVET development is lacking. The GEMM national committee has noted that within a few years it hopes to be able to rate this indicator much more positively. Finally, it must be noted that while governance systems are broadly assessed as supporting the economic and social roles of TVET and encouraging innovation, the Manufacturers' Association assessed the responsiveness of TVET governance to supporting the country's economic/labour market role more negatively.

2.2 VET leadership at national level

The mapping and analysis of TVET governance has demonstrated many positive aspects of the management of TVET provision that emanate at the national level from the Ministry of Education and the Ministry of the Economy. The system contains plenty of opportunities for good management and for the introduction of initiatives and innovation. Furthermore the central measures for quality assurance such as the control of the curriculum, national assessments and examinations and the monitoring activities of the inspectorate provide sufficient accountability for other parts of the TVET system – such as the education networks and schools and colleges – to operate with a degree of confidence and devolved responsibility.

A number of steps can be taken to improve governance at the national level.

With two separate ministries managing and administrating two parallel but separate lines of provision, there is a clear need for improved liaison and coordination between the ministries. In some instances this could simply be on a bilateral basis, but coordination could also be established under the umbrella of a coordinating council or committee that can keep its eye on strategic as well as operational issues.

As the reports of the OECD and the ETF indicate, there remains a strong need to combat major aspects of inequality and disadvantage that affect young people, women and minorities in the population. This calls for a well-coordinated approach.

Linked partly to this consideration, there is also a need to improve on the extensive informal and ad hoc dialogue and cooperation that takes place between each of the ministries and the employers representatives, and to a much lesser extent with the trades unions. Notwithstanding the need for the

ministries to set up closer liaison arrangements, this could also be undertaken through a coordinating council or committee for the whole field of TVET. The informal and ad hoc arrangements for dialogue have undoubtedly brought benefits, but the mapping and self-analysis have both revealed some gaps, such as a lack of labour market intelligence that is widely available to TVET policy makers and practitioners at the different levels in the system.

Concerning quality assurance, the national measures already in place are impressive and in spite of lower status of TVET can help to give students, employers and the wider public confidence that TVET has an important role to play in meeting the country's economic and social needs and supporting many young people as they make their qualified transition from school into the labour market, or into higher education. It would be helpful for the two ministries to examine and report on the effectiveness and coherence of the quality assurance approaches that they use, with a view to ensuring that they cover the necessary a range of operations whilst leaving the networks, local authorities and schools are sufficiently clear set of decentralised but accountable decision-making powers.

For this report, it has not been easy to identify the details of TVET funding in order to various aspects. An annual report prepared jointly by or for the two ministries could help to fill this gap. Consideration also has to be given to how the financing of TVET can be improved, and how the funding of providers can further encourage or incentivise innovations in teaching and learning and in other aspects of local activity such as engaging with industry and forming partnerships.

2.3 Social dialogue and partnership

The current ad hoc approach to dialogue and partnership between the government ministries and the social partners – mainly the Manufacturers' Association and the larger employers and their organisations has undoubtedly brought considerable benefits, and has the advantages of informality and responding to particular challenges. Nevertheless, some important issues such as developing mechanisms for understanding skills demands and translating these into formats that education planner can make ready use of, have slipped through the net. In other instances it may also be the case that improved coordination between employers and the public authorities or the education networks could create the environment for further change and innovation, which informal networking lacks the mechanism to identify. It seems that a sensible but further degree of systematisation of the dialogue between the social partners and public agencies could add value to current systems and processes of governance in a number of fields and at a number of levels in the system. This is an issue that the Manufacturers' Association has drawn attention to, and whose development the ministries are sympathetic to.

The Manufacturers' Association has developed an impressive set of contributions to the TVET sector, and this seems clearly set to increase. With this in mind, the association would do well to review its own organisation and ways of operating in communicating in order to deal effectively with the TVET-related issues at both the national and local levels.

In terms of its values, policies and organisational approaches Histadrut could whether and, then, how it could build its own capacity to participate actively in dialogue and developments across the field of TVET.

2.4 Territorial dimension

The mediating role of education networks such as ORT and AMAL between the national and most local level of provision and also between stakeholders in the public and private sector and actually helps to bring flexibility and innovation into the arrangements for TVET governance. The regional and local authorities also have both a clearly defined territorial responsibility and the power to establish a set of associated initiatives and activities.

Without seeking to alter the roles and functions of the education networks or of the regional and local authorities, all the stakeholders could explore how best to build up hubs of reform, initiative and innovation that optimise the opportunities for synergy between top-down arrangements and reforms and bottom-up initiatives that form part of the TVET culture. Since there are some doubts as to whether the regulations that cover sets of relationships that are often quite informal are really fit for purpose, a review of the regulations that cover the activities of the different stakeholders may clarify and to some extent improve the situation.

2.5 Autonomy and accountability of TVET providers

Some observers have described TVET governance in Israel as centralised. However, this seems to be the case in so far as quality and quality assurance measures are needed to develop good standards and accountability, while TVET providers have a significant extent of devolved responsibility to interpret requirements (for example as to how the curriculum is implemented) and to take initiatives. Issues that this report has taken up – such as adapting the curriculum, teaching and learning to the needs of the local economy and making effective provision for disadvantaged groups such as young women in transition to the labour market – are often best resolved at the local level under an effective framework of arrangements and regulations. Therefore, the ministries could seek ways in close cooperation with the schools, networks and other stakeholders to gradually increase the extent of autonomy that schools have to experiment and develop in appropriate ways. Funding and quality assurance mechanisms, training of teachers and school leaders and building up local capacity all have a major role to play in this respect. This comes back full circle that effective modernisation and innovation in TVET provision cannot simply be directed from the centre.

2.6 Improving the evidence-based policy approach to steering VET policy making in multi-participatory environments

Extensive data is already collected and used for some purposes in order to identify schools need to lead the market, and even how these may change in the future. Some of this clearly provides background intelligence when, for example, a new programme in TVET is being developed, or when a particular curriculum is being reviewed. Furthermore, there is plenty of know-how in both the private and public sectors to identify and reach conclusions about labour market skills demands, both at the macro and micro levels. The conundrum is widely recognised: although this data is available, and there is no lack of skilled professionals who could use different kinds of skills needs analysis for the purposes of education and training planning, introducing new qualifications, reforming the existing curriculum or teaching and learning practices, there is still no effective and systematic way of understanding labour market skills demands such that education and training planners and managers have effective intelligence in their hands. Since data and people with the appropriate skill sets are available, it is time for this important issue to be given prime consideration, and appropriate methods to be considered and decided upon for different purposes of skills analysis and anticipation. The result should be labour market information systems promptly made available to education and training managers in ways that help the reform and modernisation process.

RECOMMENDATIONS

The report concludes with a number of recommendations that TVET stakeholders should consider taking further.

Recommendation 1. Improved mechanisms and arrangements for liaison and coordination between the ministries should be established.

Recommendation 2. As a matter of priority, coordination between major stakeholders should be improved through the establishment of a coordinating council or committee, with a remit to consider and make recommendations on strategic as well as operational issues. All stakeholders should maintain a key focus on combating the major identified aspects of inequality and disadvantage that affect young people, women and minorities in the population.

Recommendation 3. Dialogue and partnership with social partners and in particular with employers should be placed on a more formal and systematic basis.

Recommendation 4. If a coordinating council or committee is to be established, its functions should include (i) an overview of how effectively the centralised arrangements for curriculum, examinations and inspections both guarantee quality and enable innovation; and (ii) ways to improve the financing of TVET and of making the funding methodology more widely understood.

Recommendation 5. The Manufacturers' Association and the trade union confederation should consider how they can each strengthen their capacity and organisation for handling TVET issues at all levels and through the stages of the policy process.

Recommendation 6. The Ministry of Education and the Ministry of the Economy should actively engage local authorities, social partners and other community organisations in local initiatives and networks that help to both meet local labour market skills needs and support the employability of disadvantaged groups.

Recommendation 7. The training needs and continuing professional development of TVET teachers and school leaders should be reviewed and acted upon urgently, so as to alleviate the shortage of teachers and improve the stock of professional skills needed for managing and teaching in a rapidly changing TVET environment.

Recommendation 8. An appropriate organisation should urgently analyse the kinds of skills and labour market needs analysis that TVET planners and managers need to plan effectively and review the range of skills identification and anticipation methodologies that can be used. This should result in recommendations for an improved labour market information system that can be constructed mainly on the basis of data that is already available in the country.

ACRONYMS

ETF	European Training Foundation
EU	European Union
GDP	Gross domestic product
GEMM	Governance for Employability in the Mediterranean
HDI	Human Development Index
IVET	Initial vocational education and training
NEET	(Young people) not in employment, education or training
OECD	Organisation for Economic Cooperation and Development
SWOT	Strengths, weaknesses, opportunities, threats
TVET	Technical and vocational education and training
UAE	United Arab Emirates
UNDP	United Nations Development Programme
VET	Vocational education and training

FURTHER INFORMATION

For further information, please see the ETF website:

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