

Diagnosis of Vocational Education and Training (TVET) in Vietnam for building further cooperation between EU, Finland and Viet Nam



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CONTENT

1. CONTEXT	3
2. SUMMARY	4
3. DEMOGRAPHIC, ECONOMIC AND SOCIO-CULTURAL SITUATIONS IN VIET NAM	5
3.1 People, population of 18- and 22-year Vietnamese	7
4. STRUCTURE OF EDUCATION SYSTEM, TVET AND LIFELONG LEARNING IN VIET NAM	11
4.1 Education Facts and education levels in Viet Nam	12
4.2 Government Bodies Involved in Education and TVET in Vietnam	12
4.3 TVET College, TVET School, TVET Center	13
4.4 Teachers, TVET staff and managers in Vietnam	15
5. STRATEGY FOR DEVELOPMENT OF TVET DURING THE 2021-2030 PERIOD WITH VISION TO 2045	17
5.1 Reform of TVET in Vietnam	18
5.2 Principles and objectives until 2025 and 2030	19
5.2.1 Specific objectives and major targets by 2025	19
5.2.2 Specific objectives and major target by 2030	20
5.3 Vision 2045	23
6. ANALYSIS; NEEDS IN VIETNAMESE TVET EDUCATION SECTOR	24
6.1 Educational needs based on the interviews and questionnaire	26
6.1.1 Enhance the skills of vocational teachers	26
6.1.2 Training for the management, leaders, and principals	27
6.1.3 Working life collaboration	28
6.1.4 Curriculum development	28
7. SUGGESTIONS - WHAT FINLAND HAS TO OFFER TO VIETNAMESE MARKETS IN VOCATIONAL SECTOR	30
7.1 Enhances skills of vocational teacher	30
7.2 Training for the principals, leaders and managers	31
7.3 Pedagogical Edtech solutions and applications	31
7.4 Working life collaboration	31
7.5 Curriculum development -elements from the Finnish vocational competence-based curriculum	31
7.6 Building the model for adult education (Lifelong learning)	31
7.7 Exchange programmes	32
7.8 Pathway and Dual Diploma study programs for students	32
7.9 Studying and working in Finland	32
8. FINANCE AND FUNDING	33
9. FUTURE STEPS	38
REFERENCES	39

1. CONTEXT

This report was requested by the Embassy of Vietnam to clarify the needs of the vocational sector in Vietnam. The main idea was to gather information to support Ministry for Foreign Affairs of Finland and Finnish National Agency for Education to better understand the TVET sector in Vietnam. The report also serves Finnish TVET actors to provide information in order for them to take part in the large-scale projects and project fundings in Vietnam. The information about the needs of the vocational field in Vietnam was gathered in meetings and school visits during the Education Finland and Embassy delegation trip in April 2023 and after that through online questionnaire which was sent to vocational institutes, schools and organizations.

Technical vocational education and training (TVET) in Vietnam is seen as one of the key elements to support economic growth in the country. This report opens the status of TVET Vietnam, the parties that are operating the field including their goals and visions for the future status of the vocational education.

The report starts with the background information related to population range in Vietnam. Population growth is rapid and there is a large number of youth and young adults presently and this is expected to continue for the following twenty to thirty years.

During the Education Finland delegation visit there was an opportunity to hear more about the needs and hopes of the national authorities, such as Ministry of Education and Training (MOET), Ministry of Labor – invalids and Social Affairs (MOLISA), and individual school management and representatives. An online survey was launched to collect more information from the field. When all this information had been gathered, it was possible to clarify the needs and hopes of the Vietnamese educational providers which are included in chapter 6.

In chapter 7 we introduce the service and product offerings from Finland that could be seen as a possible fit for the Vietnamese market needs at present. Chapter 8 clarifies the different kinds of funding mechanisms and financial support opportunities for the Finnish companies to consider operating or collaborating in Vietnam.

2. SUMMARY

The report presents the background information and the actors of VET in Vietnam and the strategy 2021-2030 objectives which are also used as material source for the questionnaire and discussions. There are many similarities but also equally many differences in the implementation of vocational education and training between Finland and Vietnam, this therefore presents good opportunities for collaboration between our countries. Differences are listed in Annex 3.

As the research study shows that there is a large population of youth and young adults in Vietnam. The age group is seen as an important asset for the labor market, both in Vietnam but in other countries as well. According to the Pham Ngoc Toan's research on Vietnam's youth qualifications, there is a high amount of young people working without the required skills or qualifications. The need for upskilling and reskilling training is recognized and the role of the foreign partners, both as content providers and from a financial perspective, is seen as important.

According to the Vietnamese Vision 2045 for TVET, there will be less vocational education schools and training centers nationwide. This indicated the fact that the qualifications offered are wider with more content reaching towards multi-talent qualifications. These types of changes in vocational education put pressure on the teachers. According to an ECF online survey, there is already great need for teacher training related to pedagogy but even more in future with demands of combining the studies fields and widening the qualifications' content.

There are lots of possibilities for the Finnish educational providers to collaborate with individual Vietnamese vocational schools and institutes. Training for the vocational teachers, supporting the TVET schools to build partnerships with the companies to enhance working competences and prepare for working life, or even providing opportunities for Vietnamese students to study Finnish qualifications in Vietnam or in Finland would be the ones that are highlighted on many occasions.

3. DEMOGRAPHIC, ECONOMIC AND SOCIO-CULTURAL SITUATIONS IN VIET NAM

Vietnam, officially the Socialist Republic of Vietnam, is a country at the eastern edge of mainland Southeast Asia, with an area of 331,212 square kilometers (127,882 sq mi) and population of 99 million, making it the world's fifteenth-most populous country. Most Vietnamese people live in the countryside, mainly in the river delta regions of the north and south. Recently though, people have begun to move to the main cities, to Ho Chi Minh City (formerly Saigon), with the population of 6.405 million and to capital of Vietnam, Hanoi with the population of 2.955 million. Other large cities are Haiphong (925,000) and Da Nang (834,000).

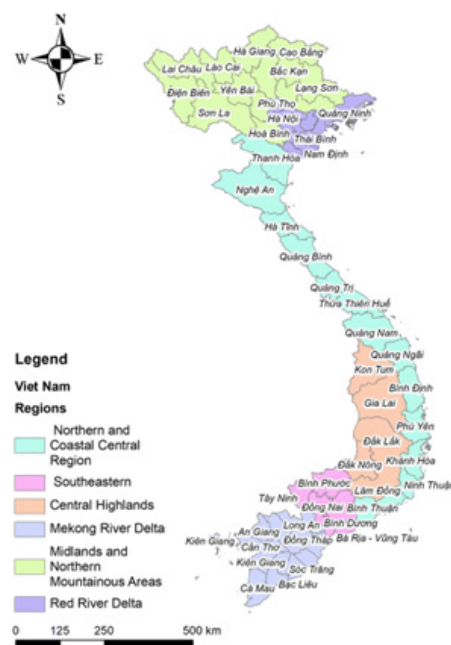
Vietnam is divided into 58 provinces which are seen in the picture 1. Provincial Committee of the Communist Party is a provincial subordinate of the Communist Party of Vietnam. Since Vietnam is a one-party state, the provincial committee of the Communist Party is the most prominent organ of provincial governance.

Each provincial committee of the Communist Party is headed by a secretary and he or she is de facto leader of the province.

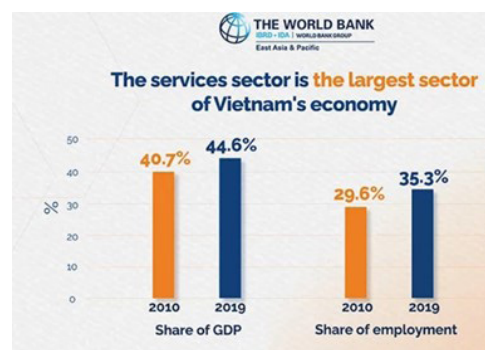
Vietnam has engaged in a new wave of economic reform to avoid the middle-income trap and to move from low-cost production-based economy towards a higher value added, knowledge-based economy. The Vietnam 2035 report (by the World Bank and Ministry of Planning and Investment), defines the goals for 2035 as a modern and industrialized nation, one of these goals is education.

The services sector in Vietnam has become the largest sector of Vietnam's economy, growing from 40.7 percent of GDP in 2010 to 44.6 percent of GDP in 2019. The sector's share of employment has increased from 29.6 percent in 2010 and 35.3 percent in 2019 (picture 2).

As the second-largest source of jobs, the sector has absorbed a significant portion of labor leaving the agriculture sector. However, Vietnam's services sector's productivity and employment performance lags behind its peers and labor productivity measured by value added per worker, is still below comparators, including Malaysia, The Philippines and Indonesia. (World bank Publication 13.3.2023)



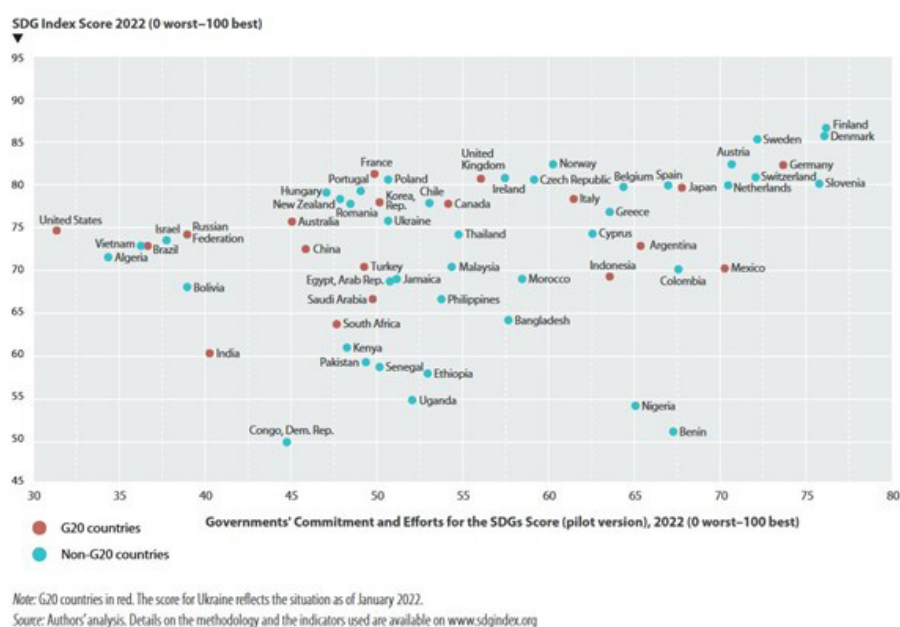
Picture 1: Map of Viet Nam



Picture 2: Service sector share of GDP and employment in Vietnam 2010 and 2019. Harnessing the potential of the services sector for growth. World Bank 2023.

The commitment and achievement of the Sustainable Development Goals (SDGs) by a country holds immense importance for learning and development. The SDGs encompass a set of 17 interconnected goals established by the United Nations to address global challenges and promote sustainable development in areas such as poverty eradication, education, health, gender equality, environmental sustainability, and more.

The commitment and achievement of SDG goals by a country have a profound impact on learning. It ensures access to quality education, promotes social inclusion, alleviates poverty, empowers women and girls, improves health and well-being, and fosters environmental sustainability. By embracing the SDGs, countries create a foundation for lifelong learning and sustainable development. The Vietnamese strategy for development of Vocational education during the 2021-2030 period with vision 2045 takes into account SDG targets such as regional and equal possibilities for learning, lifelong learning and quality of education. This is discussed further in chapter 4.



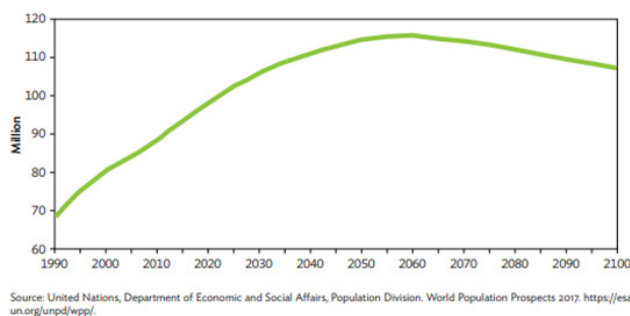
Picture 3: Governments' Commitment and Efforts for the SDGs Score versus SDG Index Score.

SDG 4 focuses on quality education, aiming to ensure inclusive and equitable learning opportunities for all. When a country commits to this goal and achieves it, it means prioritizing access to education, improving the quality of teaching and learning, promoting lifelong learning opportunities, and fostering education systems that prepare individuals for the challenges of the future.

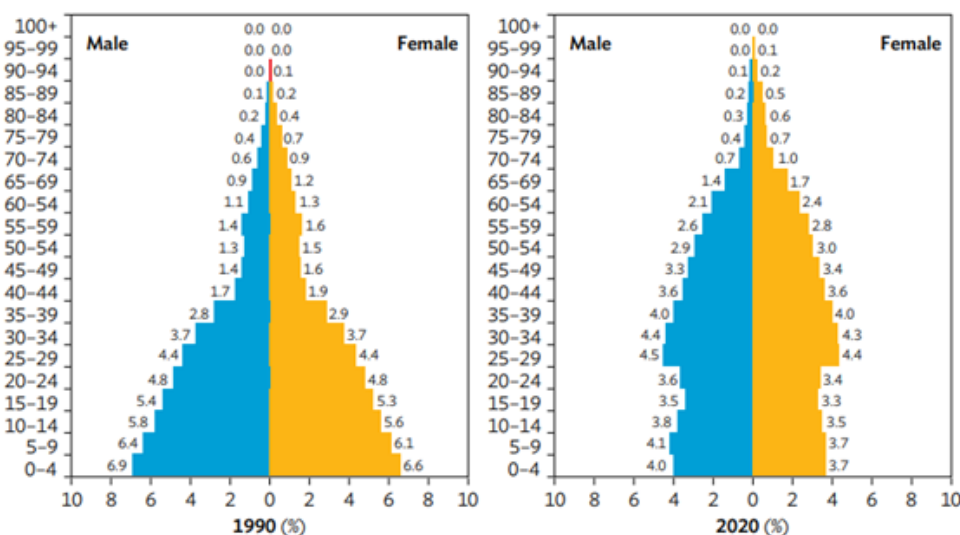
3.1 People, population of 18- and 22-year Vietnamese

Population in Vietnam is growing, and it's predicted to reach its absolute peak in 2060 (picture 4). Although still a relatively young population, with 32.5% of total population below the age of 15 and 25% classified as "young" at 15–34 years of age the country will face a structural demographic transition toward an aging society (picture 5).

The following picture 5 also shows that there is a huge potential of the young adults to be trained as professionals to work in service sector, industry or in agriculture in Vietnam but also abroad.



Picture 4: Population Growth of Viet Nam, 1990-2100, Viet Nam Technical and Vocational Education and Training Sector Assessment



Picture 5: Population pyramid of Vietnam, 1990-2020, Viet Nam Technical and Vocational Education and Training Sector Assessment

According to Toan, in Research on Viet Nam's youth qualifications, the total 18-year-old population of Vietnam is about 1.22 million and almost 63 % of this age group are concentrated in rural areas. The comparable number for 22-year-olds is over 1 million. (Toan, Research on Viet Nam's youth qualifications).

The following charts 1 and 2 show the figures for achieved qualifications among the 18-year-old. Most of the students, both male and female, continue their studies to High School, which gives them better opportunities to continue studies to abroad.

**QUALIFICATION
STATUS /
MALE**

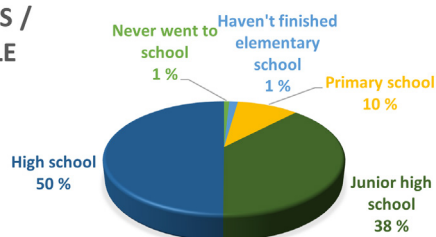


Chart 1: Qualification achieved by male (age group 18 years old). Pham Ngoc Toan.

**QUALIFICATION
STATUS /
FEMALE**

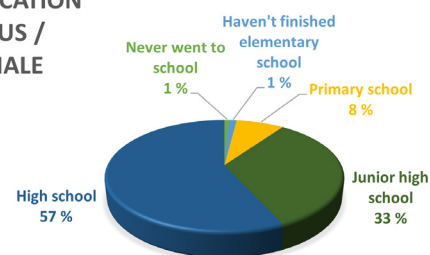


Chart 2: Qualification achieved by female (age group 18 years old). Pham Ngoc Toan.

According to charts 1 and 2 half of the male students go to high school and over half females have the same study path. 88% of the male students and 90% of the female students have passed either junior high school and/or high school in Vietnam.

The following chart describes the fields where this young population is working. Agriculture remains one of the largest fields together with Manufacturing and processing industry.

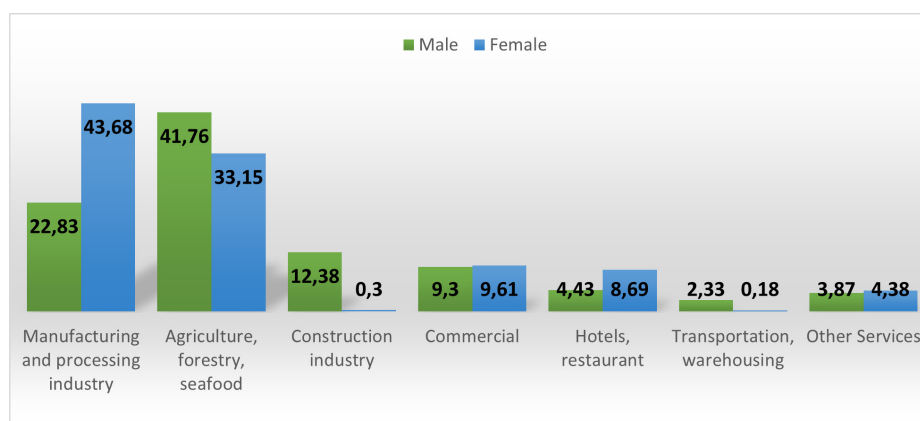
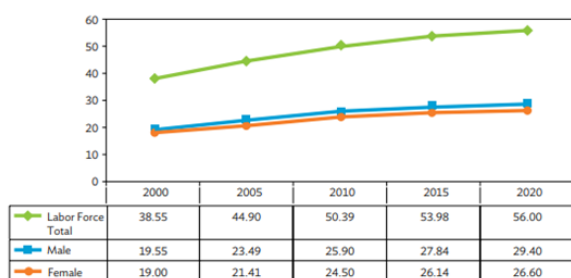


Chart 3: 18-year-old people working by gender and branch. Pham Ngoc Toan.

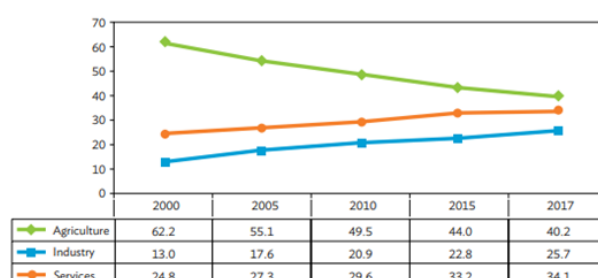
Chart above shows that there are more females working in manufacturing and processing industry than males. This is explained due to the fact that clothing industry is very strong in Vietnam, and it is attracting young workers of which the majority are female. On the other hand, the number of male workers in Agriculture, forestry and seafood is greater than for female workers. The service sector is growing fast but it cannot yet be seen in this chart.

As the chart four shows, the size of the Vietnam's labor force grew from 38 million in 2000 to almost 55 million in 2017 increasing to 56 million in 2020. By average each year about 1 million workers shifted employment from agriculture to be absorbed by Vietnam's industry and service sectors (Chart 5).



Sources: General Statistics Office of Viet Nam. www.gso.gov.vn (accessed June 2017); and International Labour Organization, ILOSTAT. http://www.ilo.org/ilostat/faces/ilostat-home/home?_afcl=state=vn&orgkm...168&_afclLoop=397701197340198# (accessed June 2017).

Chart 4: Labor force Growth 2000-2015 and Projections to 2020 (million), Viet Nam Technical and Vocational Education and Training Sector Assessment report. 2020



Source: General Statistics Office of Viet Nam. Report on Labour Force Survey 2016. www.gso.gov.vn (accessed March 2019).

Chart 5: Labor Force by sector (%), Viet Nam Technical and Vocational Education and Training Sector Assessment report. 2020

The following chart six shows the situation of unskilled workers working in industry. Over 80% male and almost 80% female are either unskilled or workers without certificates. As seen in earlier chart almost 90% of the Vietnamese students go to junior high school or High school, however they are still lacking the specific training and qualifications that should be required in working life.

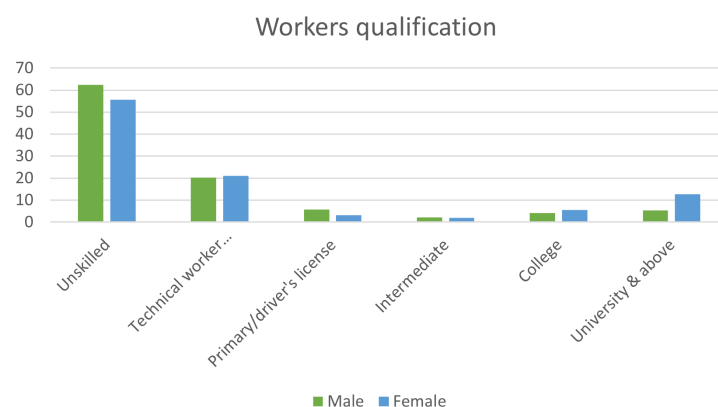


Chart 6: The volume and structure of highest technical qualification achieved by sex. (age group 18 years old). Pham Ngoc Toan

In recent years participating in learning and training has increased in line with the needs and requirements of working life even though the proportion of untrained workers in the age group of 22 still accounts 59.02%. Unskilled workers face many difficulties in finding a job and therefore adopting the profession.

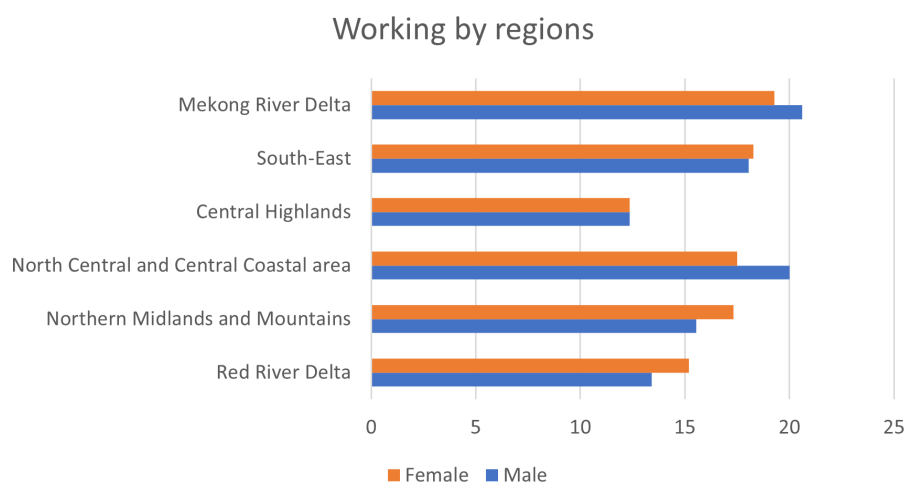


Chart 7: Structure of 18-year-old working people by sex and region in 2021. Pham Ngoc Toan

According to chart 7, the highest proportion of 18-year-old laborers working in the Mekong River Delta region, reaching 20.02% in 2021. Labor in the Central Highlands region accounts for the lowest rate of 12.48%.

The Red River Delta and Northern mountainous areas have a higher percentage of female employees. Meanwhile, the Central Region and the Mekong River Delta have a higher proportion of male workers. The Mekong River Delta, the Central Region and the Red River Delta are densely populated areas and are also the places where many laborers work. In contrast, regions such as the Northern mountainous region and the Central Highlands have a small population, labor working mainly in agriculture and forestry, the occupations are not diversified, so the proportion of 18-year-old workers is also lower.

4. STRUCTURE OF EDUCATION SYSTEM, TVET AND LIFELONG LEARNING IN VIETNAM

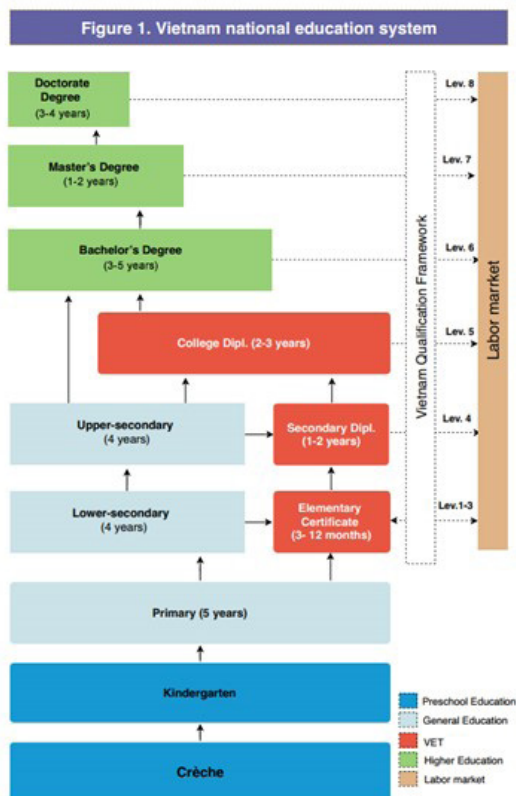
Education in Vietnam is a state-run system of public and private education run by the Ministry of Education and Training. It is divided into five levels:

- preschool (age three), 3 years
- primary school (age six to eleven)
- secondary school
 - lower secondary, four years
 - higher secondary, four years
- higher education.

Formal education consists of twelve years of basic education. Students are required to sit for entrance and leaving examinations during secondary school. There are several higher education options in Vietnam such as universities, senior colleges, and research institutes. In addition, students can enroll in junior colleges, professional secondary schools, or vocational schools. Preschool in Vietnam isn't compulsory. The curriculum for primary schools includes typical subjects such as Vietnamese language, math, nature and society, arts, and physical education. Students are also taught morals in school. In higher classes, and in secondary education, a foreign language (usually English, but sometimes Chinese or French), history, natural sciences, technology, music, and geography are added. The school year usually runs from September until May.

Primary school or elementary education in Vietnam lasts for five years and is compulsory for all Vietnamese children. It is not mandatory for students to continue their secondary school education in Vietnam. If they wish, students can continue their lower secondary education or enroll in short-term vocational training programs. They will be granted the Lower Secondary Education Graduation Diploma upon completion of their lower secondary education. Upper secondary education is also not compulsory for Vietnamese students. The upper secondary curriculum is known to be challenging and examination based. Students will be awarded the Secondary Education Graduation Diploma upon graduation.

4.1 Education Facts and education levels in Viet Nam



Picture 6: Vietnamese education system

4.2 Government Bodies Involved in Education and TVET in Vietnam

The Ministry of Labor-Invalids and Social Affairs (MOLISA) is a Government Ministry in Vietnam responsible for state administration on labor, employment, occupational safety, social insurances and vocation education people with special contribution and social issues, social protection, and prevention of social evils, childcare and children related issues, gender equality. On vocational education (excluding pedagogy issue), MOLISA collaborates with relevant ministries in providing guidelines on the implementation of legal regulations on vocational education.

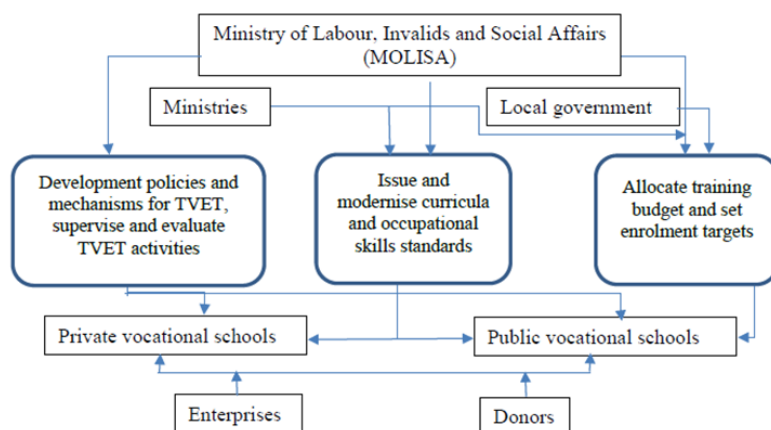
The Ministry's responsibilities cover the following:

- Issuing regulations of colleges, secondary schools and centers of vocational education, enrollment regulations, regulation for examination, test, and acknowledgement of graduation.
- Regulating the format of graduation certificate and occupational certificate, producing, management, issuance, revocation, aborting of the Certificate of Vocational Education; regulating duties of vocational education institutions with foreign investment in issuance Certification in Vietnam; regulating equivalent recognition for people graduated vocational education qualifications overseas.
- Regulating the minimum body of knowledge of every vocational education level; process of formulation, assessment, and issuance of training programs of elementary-level, intermediate-level, and college-level; compilation, select, evaluation, approval and using vocational

education curriculum.

- Managing and implementing the accreditation of vocational education quality.
- Managing and implementing training, improving teachers and administration staff, teachers in the continuing training programs.
- Making decision of establishment of vocational training colleges, acknowledgement of directors of private vocational education institutions within the Ministry's authorities.

The Ministry of Education and Training (MOET) of Vietnam oversees the country's education system.



Picture 7: The actors in TVET in Vietnam. Picture from Flake et al.2017,68. TVET@sia article 31.1.2023.

TVET Vietnam is a typically state-driven system in which training activities mainly take place in schools and trainees are isolated from industry due to TVET governance in Vietnam. The Ministry of Labour, Invalids and Social Affairs (MOLISA) plays a major role in issuing and supervising curricula and establishing occupational skill standards as seen from the picture above.

Despite the government's considerable effort during the last decade to improve quality and relevance of Viet Nam's TVET system, the industry and business sector's perception of TVET performance and outcomes has remained critical. The TVET system focuses persistently on school-based training delivery with low involvement and participation of enterprises and, correspondingly, a wide range of system-immanent problems, such as the lack of instructors with industry experience and practical skills, poor performance and output standards, lack of independent assessments of graduates as well as inefficient management and financing structures. The functional working life collaboration models could be the answer to this challenge.

4.3 TVET College, TVET School, TVET Center

According to Vietnam TVET Bulletin, people who have recently gradually have changed their viewpoint about TVET. Many students with good high school graduation scores have opted to join TVET instead of universities. The changing society's viewpoint about TVET, it is necessary to improve communication work, initially changing thoughts of students and parents. The Vietnamese Government considers vocational education development as one of the key fields to develop the

high-quality human resource for the country. Currently, the system of vocational institutions of Vietnam has been developed in both quality and quantity.

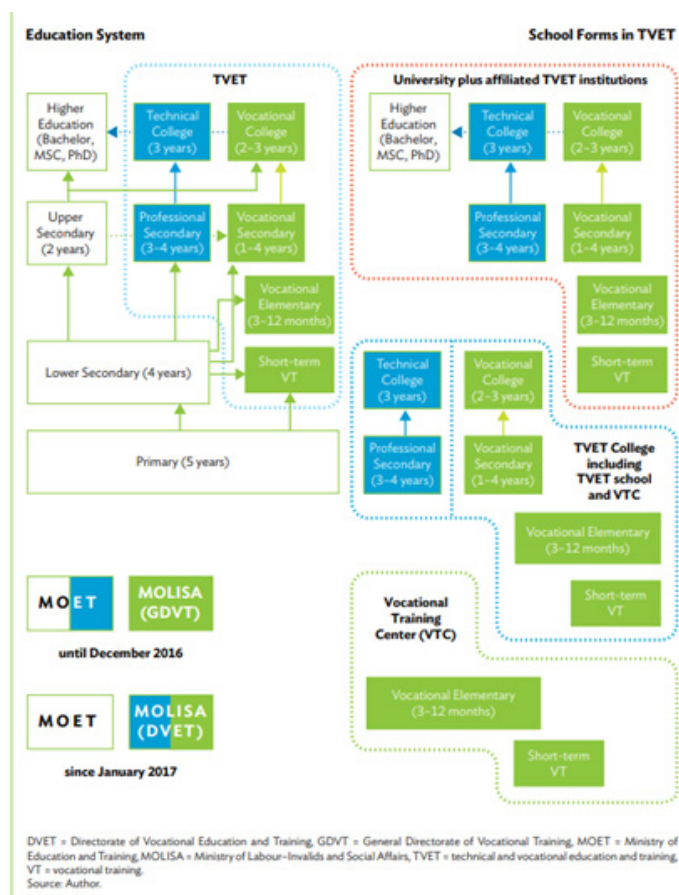
TVET Schools are receiving their funding from the Ministry or from the province, also there are fundings coming from companies and from students, student fees.

Institutions supervised by MOLISA offered formal TVET at three levels for secondary school graduates:

1. Elementary TVET, 3-12 months at vocational training centers (VTCs)
2. Intermediate TVET (3-4 years or 1-2 years at vocational secondary schools)
3. Higher TVET, 3 years, at vocational colleges and
4. VTCs also offer short-term non-formal skills training for up to 3 months for unemployed youth and workers.

Institutions under the governance of Ministry of Education and Training (MOET) provide formal technical and professional education in professional secondary schools (*Trung cấp chuyên nghiệp*) and technical colleges (*Cao đẳng*) as well as some short-term training. In scope, these institutions covered more than half of the total number of TVET colleges and secondary schools.

The main differences between the two streams under MOET and MOLISA were in the proportions of theory and practice in the curriculum of each stream and the orientation toward generic technical subjects versus more occupation-specific vocational skills. Previous rigid restrictions in the pathways between the two streams have been gradually removed and the proportion of theory and practice has become more standardized across the two types of institutions. (Viet Nam Technical and Vocational Education and Training Sector Assessment 2020.)



Picture 8: Basic overview of Viet Nam's TVET system and different school forms. Viet Nam Technical and Vocational Education and Training Sector Assessment 2020.

4.4 Teachers, TVET staff and managers in Vietnam

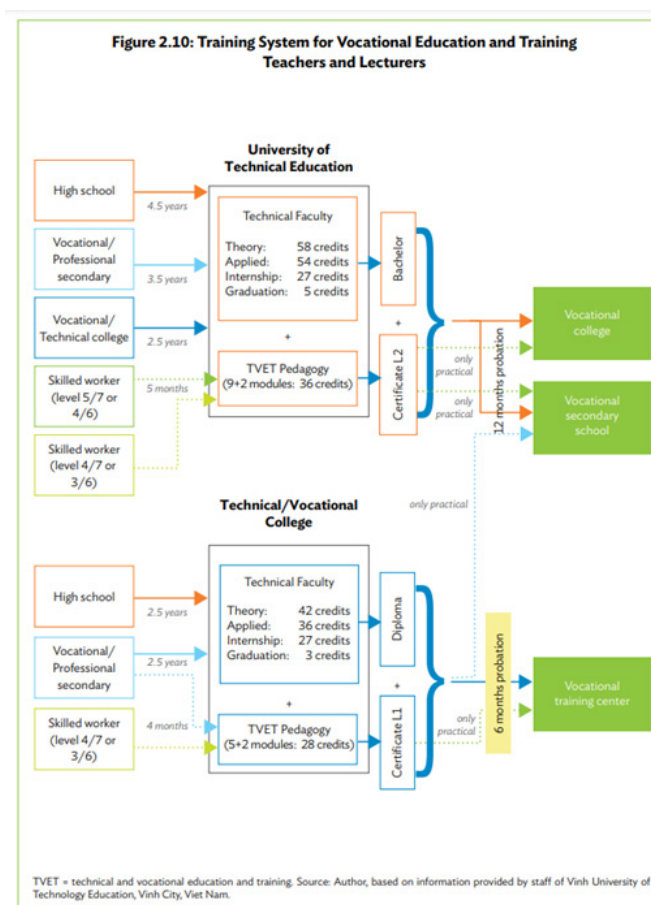
Teachers in Vietnam are highly respected by society and are seen to hold prestigious positions. There is a familial relationship when it comes to teachers and students and is seen by the terms students use to refer to their teachers. You will often find students speaking to teachers using the same terms they would when speaking to their parents.

According to the TVET law, teachers at vocational secondary schools and lecturers at TVET colleges must have at least a graduation diploma (bachelor's degree) from technical or specialized universities plus a certificate on TVET pedagogy for teaching theory lessons. Instructors providing practical sessions in these same institutions need only a TVET pedagogy certificate and "certificates of professional skills" in relevant occupational fields. Teachers and/or lecturers conducting both occupational theory and practice ("integrative teaching") are required to obtain both qualifications. Hence, the vast majority of teachers and lecturers in public TVET institutions are recruited from universities, colleges, and secondary schools, and not from industry. All newly recruited TVET teachers and lecturers have to undergo a probation period of 12 months at secondary and college level or 6 months at elementary level, respectively.

Nationwide, there are 4 universities for technical education, 1 vocational teacher training college, and 45 training divisions for TVET pedagogy at universities and colleges. Most of these institutions provide both vocational preservice and in-service training.

The picture 9 shows the training system for vocational Education and training teachers and lecturers in Vietnam.

Depending on the background qualification and experience from the field you are guided to the training program which leads you to the certificate, diploma, or Bachelor qualification.



Picture 9: Training system for Vocational Education and Training Teachers and Lecturers. Viet Nam Technical and Vocational Education and Training Sector Assessment 2020

The content of the teacher training in university and in college levels. There is a difference between the modules and the scope of the studies seen in following picture 10.

TVET Pedagogy Curriculum at University Level			TVET Pedagogy Curriculum at College Level		
Modules		Credits	Modules		Credits
1	Logics of learning	3			
2	General psychology	2			
3	Occupational psychology	3	1	Occupational psychology	4
4	General school education	2			
5	Vocational school education	3	2	Vocational school education	4
6	Organization/management of the teaching process	2	3	Organization/management of the teaching process	2
7	Teaching skills	5	4	Teaching skills	5
8	Specialized teaching methods	3	5	Specialized teaching methods	3
9	Research methodology of professional education	2	6	Scientific research methods of education*	2*
10	Pedagogical communication*	2*			
11	Application of information technology in teaching*	2*	7	Application of information technology in teaching*	2*
12	Teaching technology*	2*	8	Teaching technology*	2*
13	Development of vocational training programs*	2*	9	Development of vocational training programs*	2*
14	Economics of education*	2*			
15	Pedagogical practice 1	2	10	Pedagogical practice	6
16	Pedagogical practice 2	6			
Total		36	Total		28

TVET = technical and vocational education and training.

* Elective modules (2 of 5 modules selected at university level and 2 of 4 modules selected at college level).

Source: Author, based on information from Vinh University of Technology Education. <http://vuted.edu.vn>.

Picture 10: Teachers Training Curricula. Viet Nam Technical and Vocational Education and Training Sector Assessment 2020.

5. STRATEGY FOR DEVELOPMENT OF TVET DURING THE 2021-2030 PERIOD WITH VISION TO 2045

The Strategy for Development of Vocational Education during the 2021-2030 period with vision 2045 (No 2239/QĐ-TTg 30.12.2021) contains viewpoints and objectives, main tasks and measures, funding and implementation.

Viewpoints:

1. Vocational education development as one of the most important tasks to suit the needs of socio-economic development of the country.
2. Develop VET towards openness, flexibility, modernity, efficiency, and integration, putting more emphasis on the training capacity scale, structure and quality; investing in and promoting international cooperation to develop a number of vocational education institutions, majors and occupations to reach the regional and global level of educational standards.
3. Develop VET towards suiting the labor markets' needs, maximize the capacity and qualities of learners; promote entrepreneurship, innovation, and creativity.
4. Regulatory authorities shall have policies and prefer to fund VET when making the budget allocations, strengthen private sector involvement in VET in suitable areas, sectors, and industries.
5. VET development shall be assigned to all-level regulatory authorities and plans and projects of central and local authorities.

Implementation -part consists of 13 different actors: 1) Ministry of Labour, Invalids and Social Affairs, 2) Ministry of Education and Training 3) Ministry of Planning and Investment 4) Ministry of Finance, 5) Committee for Ethnic Affairs, 6) Ministry of Agriculture and Rural Development, 7) Ministry of Science and Technology, 8) Ministries, Ministry-level, Governmental and other relevant agencies, 9) Vietnam Television, Voice of Vietnam, other press and media agencies, 10) Vietnam Association for Promoting Education, 11) Central Committee of Ho Chi Minh Communist Youth Union, 12) Vietnam Chamber of Commerce and Industry, Vietnam Small and Medium Enterprise Association, Vietnam Association of Vocational Education and Social Work, socio-political organizations, social-political-professional organizations, social organizations, socio-professional organizations and 13) People's Committees of centrally-affiliated cities and provinces

Currently only 26 % of Viet Nam's labour force has a professional qualification (2021) and the technical and vocational education and training is not yet capable to meet the requirements of changing world of work and growing economy in Vietnam.

In the same vision the Prime Minister issued the Decision on approved the Strategy of vocational education development in the period of 2021- 2030, vision to 2045 with the general goal: *"Quickly developing vocational education in order to meet the various requirement of labour market and the increasingly requirement on quantity, structure, quality of human resource with vocational skill for the development of the country in each period"*.

According to the Approving the Planning for Vocational education and training facility (institutes) network of 2021-2030 period and vision 2045 the decision describes ten different content areas, each comprising multiple goals, principles, and practical actions, which are compiled in the picture below (picture 11).

Approving the planning for vocational education and training facility network of 2021-2030 period and vision to 2045	
Name of the solution, Solutions relating to...	number of subsolutions
1 Policies and regulation	4
2 Human resource development	8
3 Improvement of training amenities and equipment	4
4 The environment, science and technology	3
5 Connection and development cooperation	4
6 Education and dissemination	3
7 International cooperation	3
8 Mobilization and allocation of investment	3
9 Management model and mode of operation	3
10 Organizing implementation and planning supervision, implementation	10

Picture: Solutions from Decision no 73/QĐ-TTg 10.2.2023 Prime minister of Vietnam
Each of the solutions consist multiple subsolutions which can be divided to smaller implementations

Picture 11: Number of Development solutions from Decision No 73/QĐ-TTg 10.2.2023 Approving the planning for vocational education and training facility (institutes) network of 2021-2030 and vision to 2045. listed by Pauliina Holm.

5.1 Reform of TVET in Vietnam

Vietnamese-German program “Reform of Technical Vocational Education and Training in Viet Nam II” funded by the German Ministry of Economic Cooperation and Development and Vietnamese Government aiming to better align TVET to the changing needs in the world of work. There are three main outputs to be achieved:

1. State actors, TVET staff, institutes and business sector are interconnected,
2. The regulatory framework of TVET is aligned to the requirements of the changing world of work and
3. The concept of High-quality TVET institutes is successfully implemented in selected TVET institutions (Toan page 1).

In GIZ’s model the selected TVET colleges are supported by the program to become high-quality TVET institutions: occupations of mechatronics, industrial electronics, metal cutting, construction mechanics, electronics for energy and building technology, mechanics for sanitary, heating and climate technology and sewage engineering.

International technical experts are embedded in the partner colleges to advise managers and teachers on organizational topics. GIZ is strongly leaning on the German model, where industries have strong role and individuals are following the predefined study path according to the field of studies.

There is an important role of the consultancy between in-company training and assessors from industry, this is one of the key elements how to ensure the that the training is matching for the requirements of the working life.

5.2 Principles and objectives until 2025 and 2030

Vocational education development emerges as one of the most important tasks to be performed to promote human resource in order to take advantage of the population, create human resources that have high standards, outstanding performance and vocational expertise to suit the need of socio-economic development of the country.

Develop TVET towards openness, flexibility, modernity, efficiency, and integration, putting more emphasis on the training capacity scale, structure, and quality. Concentrating on investing in and promoting international cooperation to develop several vocational education institutions, majors, and occupations to reach the regional and global level of educational standards.

There are development solutions regarding 1) Network composition and training scale, 2) Region-based network distribution until 2030, 3) Development of vocational education and training teaching staff and managers and 4) Investment in training and equipment.

5.2.1 Specific objectives and major targets by 2025

Objectives by 2025

According the Decision no 2239/QĐ-TT-g Approval for the strategy for development of vocational education during 2021-2030 period with vision to 2045 general objective is rapidly develop VET to meet various needs of the labor market, the people and the increasing requirements add to the quantity, structure and quality of skilled human resources to serve the national development purposes over time.

Specific objectives and major targets by 2025

- Attract 40-45% of lower and upper secondary school graduates to VET; over 30% of female students compared to total enrollment target.
- Provide retraining or continuing education programs for about 25 % of the workforce.
- Workers who are ethnic minorities completing VET programs are expected to account for 45 %
- Handicapped workers are capable of working that have completed appropriate vocational training programs are expected to account for 35 %
- The percentage of workers trained in information technology skills are expected to reach 80 %
- At least 30 % of vocational education institutions and 50 % of study programs in key majors and occupations are expected to meet education quality accreditation standards.
- Strive for 100 % of qualified teachers; about 80 % of education administrators who are expected to complete training or refresher courses for improvement of their management and administration skills.
- Strive to reach about 80 % of majors and occupations in which expected learning outcomes are developed and updated according to the National Qualifications Framework.
- Strive to develop about 70 schools into high-quality ones; including 3 schools that function as national centers for high-quality vocational training and practice; 6 schools that function as regional centers for high quality vocational training and practice; 40 schools that approach the level of training standard of ASEAN-4 countries; 3 schools that reach the level of training standard of G20 developing countries; about 150 key majors and occupations, out of which 5-10 have outstanding competitiveness in ASEAN 4 member states.

According to a national plan for a network of vocational education facilities during the 2021-2030 period, with a vision for 2045, Vietnam has set a target to have 1,800 vocational education facilities by 2025, including three national high-quality vocational training centers and six regional centers. The number of students recruited by vocational schools will be around 2.5-2.7 million per year by 2025 and 3.8-4 million per year by 2030.

5.2.2 Specific objectives and major target by 2030

Objectives by 2030 According to Decision no 2239/QĐ-TT-g Approval for the strategy for development of vocational education during 2021-2030 period with vision to 2045.

Several major targets 2030 are:

- Attract 50-55% of lower and upper secondary school graduates to the VET; over 40% of female students compared to total enrollment target.
- Provide retraining or continuing education programs for about 50 % of the workforce.
- Workers who are ethnic minorities completing VET programs are expected to account for 50 %
- Handicapped workers can work that have completed appropriate vocational training programs are expected to account for 35 %
- The percentage of workers trained in information technology skills are expected to reach 80 %
- At least 70 % of vocational education institutions and 100 % of study programs in key majors and occupations are expected to meet education quality accreditation standards.
- Strive for 100 % of qualified teachers; about 90 % of education administrators who are expected to complete training or refresher courses for improvement of their management and administration skills.
- Strive to reach about 90 % of fields and areas of study in which expected learning outcomes are developed and updated according to the National Qualifications Framework
- Strive to develop about 90 schools into high-quality ones; including 6 schools that function as national centers for high-quality vocational training and practice; 12 schools that function as regional centers for high quality vocational training and practice; 60 schools that approach the level of training standard of ASEAN-4 countries; 6 schools that reach the level of training standard of G20 developing countries; about 200 key majors and occupations, out of which 15-20 have outstanding competitiveness in ASEAN 4 member states.

1 Vocational education and training facilities, type of ownership, quality and enrolment					
	2020	2023	2025 goals	2030 goals	
I Network composition					
1 total	N/A	N/A	1800	1700	
2 colleges	N/A	N/A	400	380	
3 intermediate schools	N/A	N/A	400	390	
4 VET centers	N/A	N/A	1000	930	
5 regional centers	N/A	N/A	6	12	
II Types of ownership					
public VET total	N/A	N/A	980	850	
public colleges	N/A	N/A	290	260	
public intermediate schools	N/A	N/A	130	110	
public VET centers	N/A	N/A	560	480	
Foreign-invested VET total	N/A	N/A	820	850	
foreign-invested colleges	N/A	N/A	110	120	
foreign-invested intermediate schools	N/A	N/A	270	280	
foreign-invested VET centers	N/A	N/A	440	450	
III High quality colleges					
total	N/A	N/A	70	90	
ASEAN-4 level	N/A	N/A	40	60	
G20 level	N/A	N/A	3	6	
IV Enrolment and training scale					
by training level					
people (million)/year		N/A	2 700	4 000	
of which % have college intermediate level		N/A	25	25-30	
By occupation sector					
of which (million) in industrial and construction		N/A	1 030	1 800	
of which (million) in agro-forestry-fishery		N/A	670	600	
of which (million) in service sector		N/A	1 000	1 600	

Table 1: Development solutions: TVET facilities, type of ownerships, quality, and enrolment from Decision no 73/GQ-TTg 10.2.2023. Table Pauliina Holm.

As depicted in the above image compiled from the text of the strategy, we can see quantitative targets between the years 2025 and 2030. The most significant difference lies in the increase in the number of enrolments.

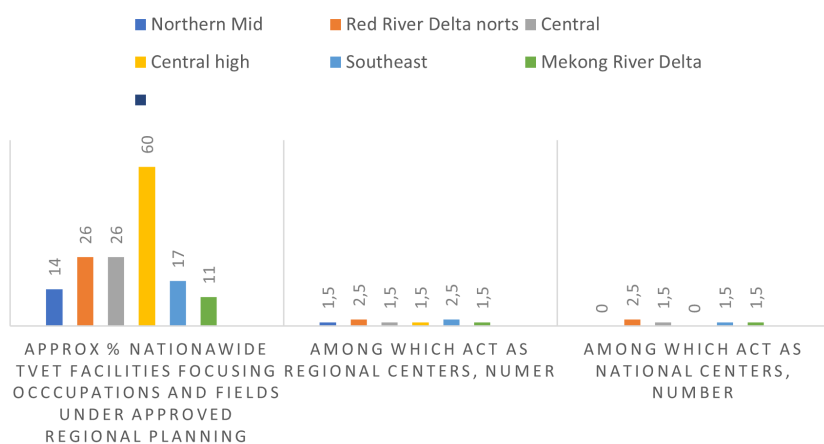


Chart 8: Development solutions: Region- based network distribution until 2030 from Decision no 73/GQ-TTg 10.2.2023.

The above table compiles regional priority differences and targets by 2030.

3 Development of vocational education and training teaching staff and managers				
	2020	2023	2025 goals	2030 goals
I TVET teaching staff				
regarding quantity				
teachers number	N/A		70 000	67 000
craftsmen, experts, TVET teachers in all level	N/A		14000	50 000
regarding quality				
teachers have mastered degrees or higher %	N/A		50	70
teachers in key occupational fields have one level higher TVET qualification than the TVET qualification required for teachers %			20	30
teachers approach the level of ASEAN-4 and G20 %			60	65
II TVET Managers				
regarding quantity				
managers number	N/A	N/A	26 000	25 000
managers number including national centers, regional centers			400	800
regarding composition				
women held TVET manager positions in regulatory authorities and leadership positions in local governments %			60	75
regarding quality				
managers of high quality schools and national centers approach qualification level of ASEAN-4 and G20 %			30-40	70

Table 2: Development solutions: Development of vocational education and training teaching staff and managers from Decision no 73/GQ-TTg 10.2.2023. Table Pauliina Holm.

This summary table highlights the qualitative and quantitative targets related to teaching staff and leadership as written in the strategy. It emphasizes the quantitative (percentage) changes. The strategy, in a few instances, highlights the comparability to ASEAN-4 and G20 countries' levels. The most significant change in the image is in the number of craftsmen, experts, TVET teachers in all levels; in 2025 14 000 and in 2030 50 000. Comparison numbers for the year 2020 or until now were not available.

4 Investment in training amenities and equipment			
	2025 goals	2030 goals	2050
Regarding land area for construction of TVET facilities			
resolution No 39/2021/QH15 for land use 2021-2030		2021-2030	
5-year National plan for land use 2021-2025	2021-2025		vision 2050
vision 2050			
regarding quality of amenities and structures of TVET facilities			
TVET facilities have sufficient number of structures with sufficient space, satisfy construction, design standards and amenity standards for practice experiment, and testing depending on fields of training %	80	100	
TVET facilities approach ASEAN and world standards %	30	50	
Training equipment in key occupations			
Training equipment invested in a modern, smart and green manner that meets technology, technical conditions of production capability %	85		
Training equipment invested in a modern, smart and green manner that meets technology, technical conditions of production capability and satisfies requirements of new vocations, skills %		95	

Table 3: Development solutions: Investment in training amenities and equipment from Decision no 73/GQ-TTg 10.2.2023. Table Pauliina Holm.

Investment in training amenities and equipment includes ensuring consistency with the general national planning, National plan for 2021-2025 and other relevant laws. Quality is described also in these goals as quantitative percentages. According the strategy “by 2030 100 % of vocational education and training facilities have sufficient number of structures with sufficient space; satisfy construction, design standards and amenity standards for practice, experiment, and testing depending on fields of training. 30 % of vocational education and training facilities which approach standards of ASEAN region and the world.”

5.3 Vision 2045

According the strategy (Decision No.2239/QĐ-TTg 2021) Viet Nam’s vision towards 2045 for vocational education is to meet a developing country’s need for highly skilled human resources; Vietnam is expected to be ranked as one of the leading countries in terms of vocational education in the ASEAN region, catch up with the advanced level of training standard in the world, and have outstanding competitiveness in a number of training fields, majors and occupations.

Vocational education and training facility network can fulfill the demand for personnel who have received vocational training of developed countries with high income; training quality is among the leading groups in ASEAN region, several vocational education and training facilities catch up the worldwide level and have and have advanced competitiveness in certain fields and majors (Decision No 73/GĐ-TTg 2023).

6. ANALYSIS; NEEDS IN VIETNAMESE TVET EDUCATION SECTOR

Education Finland and Finnish Embassy in Vietnam organized Finnish Education Forums and delegation tour in Hanoi and Ho Chi Minh City in April 2023. Part of the program were meetings with Ministry of Labor, Invalids and Social Affairs (MOLISA), Ministry of Education and Training (MOET), GIZ Vietnam, EU delegation in Vietnam, Hanoi Industrial Vocational College and Hanoi College of Commerce and Tourism in Vietnam in April 2023.

In all those meetings same topics were risen when discussed about the needs of the TVET sector in Vietnam, those were strong relationship and collaboration with the Finnish educational providers to focus on professional teacher training, curriculum development and study opportunities for Vietnamese young adults.

An online questionnaire for the vocational institutes and schools in Vietnam was carried out during May 2023. The purpose of the questionnaire was to identify the needs but also to clarify the status of vocational education, especially the level on stakeholder collaboration, working life connections and requirements for curriculum development. The survey was sent out through the Vietnam Embassy, Business Finland and GIZ contacts. Unfortunately, the answer rate was low, with only eleven responses, but the result is still very informative and covers all the TVET sectors and almost all the demographic areas. In addition to the online survey there has been discussion with Vietnamese educational providers through email and face to face, while the delegation from Quang Ngai Province was visiting in Finland.

Chart 8 shows the background information of the eleven people responding to the ECF online survey. Although the sampling was small, the respondents are with different backgrounds and working status, and as they represent their own working community and institute this fact gives the broadness to the results.

The chart 9 describes that the respondents are operating in almost each provincial area in Vietnam. Each province has its own strengths and weaknesses related to vocational education, so it is important to have information from all the areas.

As chart 9 shows, many of the educational providers are operating in one or two areas. Mekong River Delta region is strongly presented here, which is no wonder since that the region includes large cities like San Tho, Ho Chi Minh City and Phnom Penh. There are demographic differences between the regions, which indicates differences in offered vocational studies and field of studies.

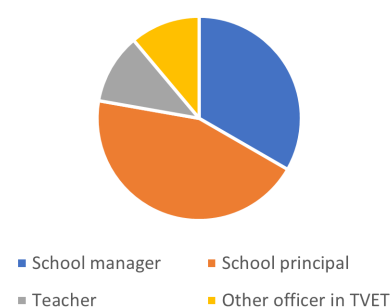


Chart 8: Professional background of the respondents. ECF Online survey 2023

According the ECF survey, “There are enough public vocational schools to ensure access to TVET but training facilities but the learning environments are not really good”, said one of the respondents. Other one continues with the comment of; “Vocational institutes in Vietnam are still in the process of digital transformation and are in need of new and more modern equipment since most of them are very outdated.”

There was a comment related to funding in survey; “We are lacking equipment for training due to limit investment from Government, low enrollment and low tuition fee.” This comment refers to the fact that teacher is not satisfied with the facilities which is also seen in following picture X One of the comments was indicating the standard of the equipment in use;” Not enough facilities and the old equipment that does not meet modern technology”.

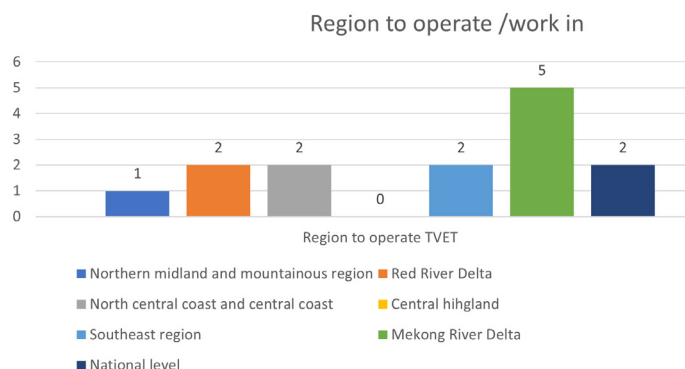


Chart 9: Region to operate of the respondents. ECF Online survey 2023

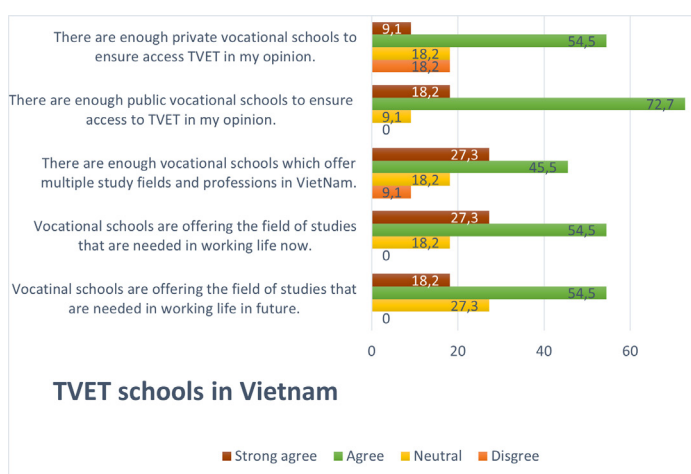


Chart 10: Number of TVET schools in Vietnam. ECF Online survey 2023

Learning facilities

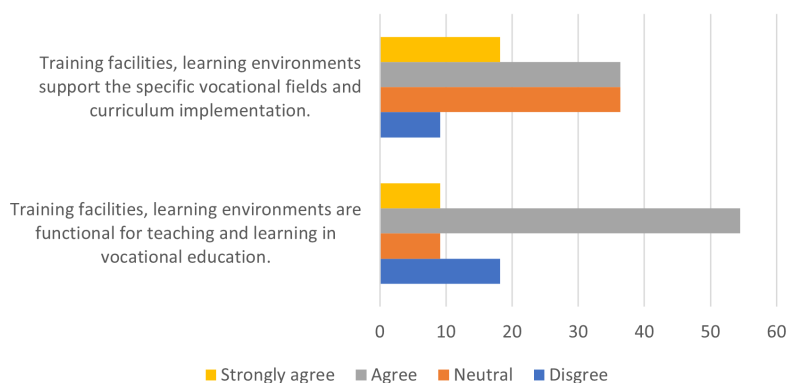


Chart 11: Learning facilities in TVET schools. ECF Online survey 2023

6.1 Educational needs based on the interviews and questionnaire

6.1.1 Enhance the skills of vocational teachers

One of the main development targets is teacher training. The need for the teachers' pedagogical upskilling is needed due to the rapid changes in working life and digitalization which requires new ways and methods in teaching. Teachers have basic knowledge of pedagogy, but they need more concrete knowledge and tools on how to benefit the pedagogies in their daily teaching. Teachers would benefit a lot from the external information, support and knowledge related to teaching and learning in the vocational sector.

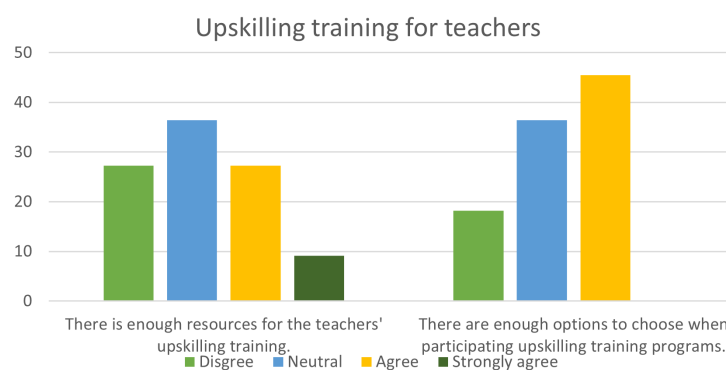


Table 4: Teachers professional development. ECF Online survey 2023

One of the survey respondents wrote, *“Lecturers and managers need to have more working competencies to adapt to the current trend such as digital competence, digital pedagogy, collaboration capacity, critical thinking, and self-study.”* There is a recognized need for upskilling training and precise topics for both teachers and managers.

The following table shows that according to the survey there is a need for teacher training programs in the fields of pedagogy, digital skills, and entrepreneurship. Table also indicates that there may not be enough resources for the teachers upskilling training even though it is seen important.

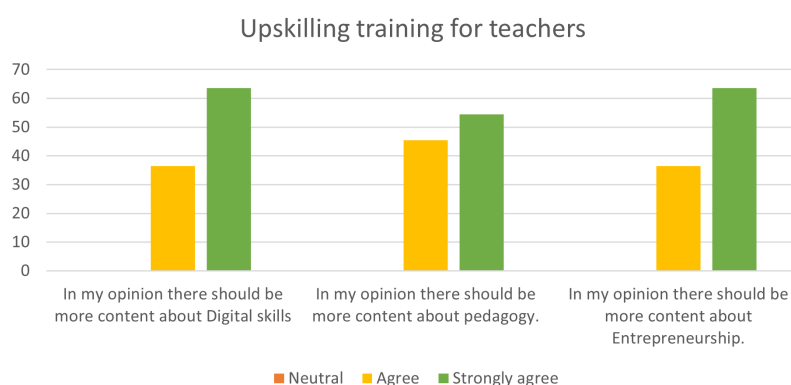


Table 5: Upskilling training for teachers. ECF Online survey 2023

According to survey there are many different skills and competencies listed to be gained for the future, such as soft skills, communication skills, IT, negotiation skills, teamwork, time management, competency-based teaching, digital skills and digital pedagogy, self-study ability and Entrepreneurship ability.

When asked about the pedagogical approaches used in vocational education and training in Vietnam, the answers highlighted that there are *“traditional methods”* used and *“the experts should move from theory class for more authentic information”*. Continuing with the statement of *“Learning in real situation means that there is need to go to the companies with the experts”*.

Discussions during the visits with Ministry of Labor, Invalids and Social Affairs (MOLISA), Ministry of Education and Training (MOET) underlined the same statements regarding the needs of pedagogical training for teachers, strengthening the digital skills and include the Entrepreneurial approach with to curriculum.

6.1.2 Training for the management, leaders, and principals

The importance of the management level being involved with collaboration with the working life, the quality measurement of the TVET programs and teacher training is recognized. To be able to support the school staff managers, leaders and principals need to have enough understanding of the pedagogy and teachers' daily work but also tools to lead the change toward the future goals.

According to the survey, there is a need for both qualified teachers and management level staff.

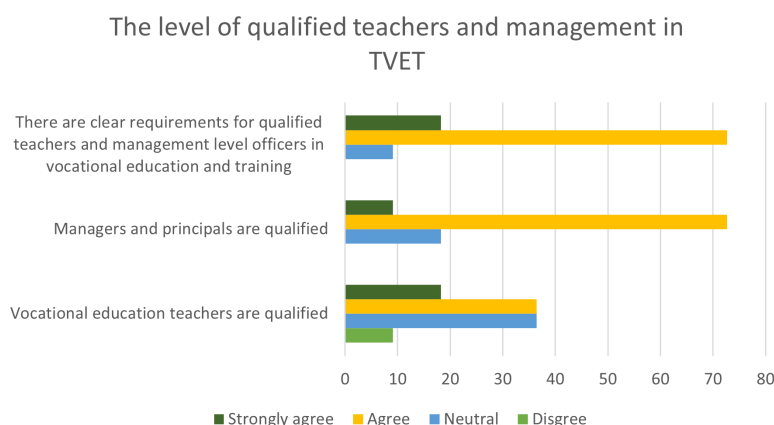


Table 6: Qualified teachers and managers in vocational education. ECF Online survey 2023

Pedagogical digital software is mentioned in the survey responses. According to one of the respondents, *“Lecturers and managers need to have more working competencies to adapt to the current trend such as digital competence, digital pedagogy, collaboration capacity, critical thinking, and self-study.”*

Another respondent stated that there are many different types of upskilling training to choose from, like Science of Leadership and People Management, Conflict management for school leaders, Strategic Management of Vocational Institutions, smart factory, and Project-based Learning.

6.1.3 Working life collaboration

According to the discussions during the delegation visit in Vietnam, educational providers highlighted the importance of collaboration with the working life and the companies related to each field of studies. Request for the concrete model of how to build win-win partnerships with the companies was mentioned during the conversations.

The following table shows that according to the survey the respondents are quite satisfied with the level of collaboration between schools and companies. Although this could be one of the topics to develop toward win-win partnership.

One response stated the following: *“We don’t have authentic restaurants or hotels at school for the practice, but students go to the hotels and restaurants in a particular arranged time after learning about theory.”* According to this comment there might be a lack of functional learning environments in schools but the collaboration with the working life is still active. Another respondent commented; *“Our school works with a lot of companies from the industry to provide internships for our students so they can have all the work experience they need to be able to prepare for work in the future”*.

Regional differences are shown in one of the respondent answers; *“In Central area, almost companies are SMEs. They care most about benefit, less interest in long-term investment for training”*.

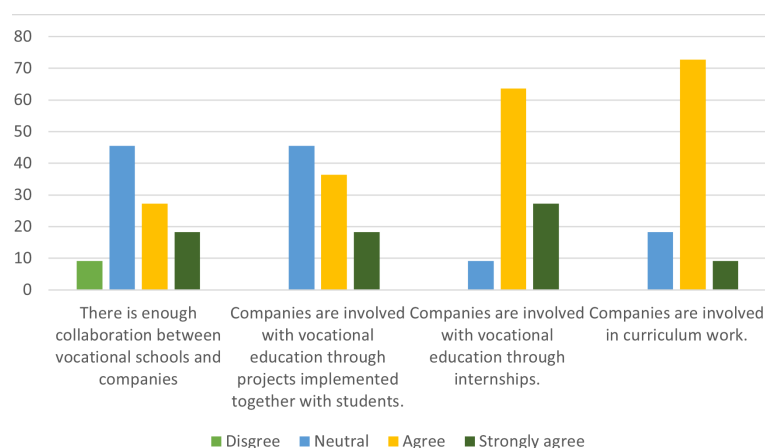


Table 7: Collaboration with the companies and working life. ECF Online survey 2023.

6.1.4 Curriculum development

One question in survey was working life’s role in curriculum development as part of the collaboration. Over 70% of the respondents said that companies are involved. Still there are different opinions regarding the fact whether the curriculum is built to meet the requirements of the working life.

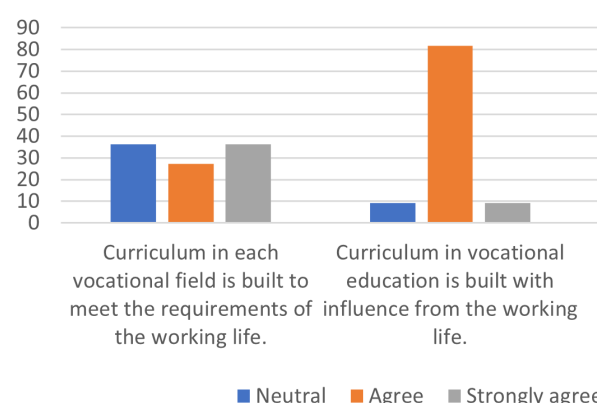


Table 8: Curriculum development. ECF online survey 2023.

The need for the development according to the discussion during the delegation visits was ensuring the working life requirements for skills and competences and matching those with the content thought in schools. Utilizing the continuous assessment and the role of the company representatives to be part of the assessment process.

Also, in schools visits the following topics were mentioned when asked what kind of goals schools have towards foreign partners:

- to find a mutual curriculum with some other country and then customize it to Vietnamese needs,
- dual study programs for the vocational students, meaning first year in Vietnam and following two in other partner organizations' location.
- entrepreneurship skills for all the students as part of the teaching content in different fields of study.
- Supporting adult education, upskilling and reskilling opportunities

According to the survey there is a need for teachers' upskilling. The respondents were not all satisfied with the level of TVET teachers' qualifications which indicates that some skills should be offered as part of the teachers' professional development training programs, shown in table 3. In the survey we asked about the importance of different development targets, educational services, and support. There we eight options to choose and to put in line according to importance.

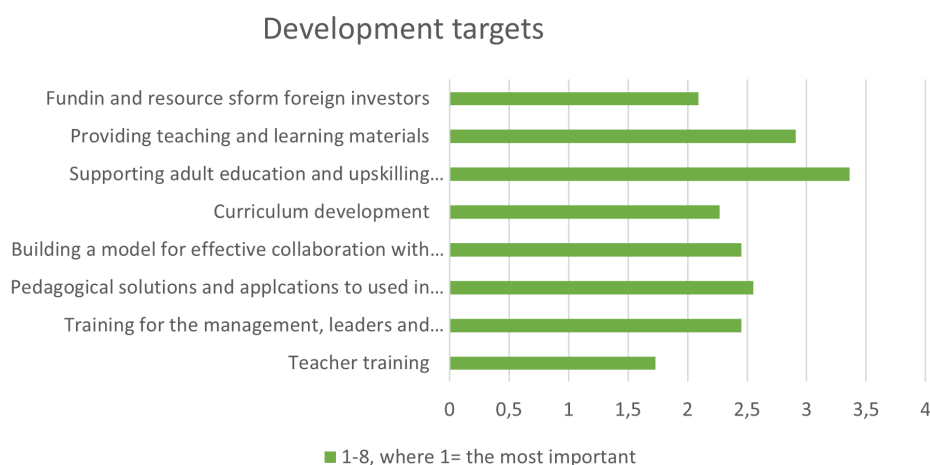


Table 9: Importance of the development targets. ECF Online survey 2023

Comments in the survey supported the view of these development targets. The need for upskilling is seen as one of the key factors to support the teachers. One respondent stated *“there is a need for management skills and capacity to adapt to the rapid change of science and technology. The 4th industrial revolution and digital transformation skills and capacity for both management staff and lecturers”*.

7. SUGGESTIONS - WHAT FINLAND HAS TO OFFER TO VIETNAMESE MARKETS IN VOCATIONAL SECTOR

7.1 Enhances skills of vocational teacher

Teacher training programs:

1. **Certificate programs delivered in a cost-effective manner through online and hybrid implementation.**
 - a. Pedagogical methods and tools
 - b. Training related to project-based learning management, entrepreneurship, working life cooperation etc.

According to the surveys there is a need for teachers upskilling training to support teachers in their daily work by providing lesson plans, online and offline materials and concrete info on how to use different kinds of pedagogies.

Picture 10 shows the content and number of credits of the teacher training program. Finnish educational providers have much to offer into these modules.

2. **Certificate programs with Finnish Vocational, Further and Special Vocational Qualification or parts of the Qualification**
 - a. Whole qualifications such as Specialist vocational qualification in Product Development (180 competence points).
 - a. Parts (Module based qualifications) of the Qualification such as Service design (15cp), Event production (15cp) or Working in a project (15cp) .

The benefits of having the whole qualification or one module from Finnish vocational qualification is to gain understanding of the topic itself but also to get firsthand experience of the competence-based curriculum and how to implement it.

3. **Professional Development Training programs with credits from the University of Applied Sciences (up to 60 ECTS).**

In Finland Universities of Applied Sciences are in charge of the vocational teacher training. The required program is 60 ECTS, but many UAS are offering upskilling packages with just 10-20 ECTS. These programs emphasize teaching and learning pedagogies and provide concrete tools for vocational teachers. Also tailored training programs according to the specific needs, such as Project-based learning, can be delivered.

7.2 Training for the principals, leaders and managers

- a. Leadership and teambuilding (multi-professional teams)
- b. Education planning and curriculum development work

Training of the management team is important and crucial so that they can support the teachers during the changes in vocational education. Leadership training is offered by various vocational institutes, UAS and Science Universities in Finland. There is an option to study the Specialist Vocational Qualification in Leadership and Business Management or parts of the qualification. Training programs are offered online, onsite and as hybrid version.

7.3 Pedagogical Edtech solutions and applications

Several Finnish companies are offering digital solutions in K12 Schools to support school's daily work in such as lesson plans or school's management and operations. In Finland Edtech solutions are playing an important part in daily school operations. These services can be seen as beneficial also in vocational education.

7.4 Working life collaboration

In Finland the collaboration with the working life is very strong and part of the daily operation in vocational schools. There are many different co-operation models in use which could be beneficial for the Vietnamese vocational schools and institutes as well. One part of the collaboration is projects implemented together with the companies. During these projects students are getting firsthand experience of working life, while at the same time building their own network. Another important aspect for the collaboration is curriculum work. The more companies are involved with the curriculum work the better it matches the needs of the working life.

One of the key points in working life collaboration is that it benefits the both parties and that why it is important that there is an existing model and framework to be used by all the staff.

7.5 Curriculum development -elements from the Finnish vocational competence-based curriculum

Finnish vocational education is competence-based and the qualifications are built from the modules. Continuous assessment is in important role and the learning happens both in classrooms or other learning environments, and in workplaces. Competence-based curriculum could be one of the takeaways from Finnish TVET to Vietnamese vocational sector.

Part of the curriculum development is to provide teaching and learning materials alongside with teacher training, for the teachers according to field of studies and level of the qualification.

7.6 Building the model for adult education (Lifelong learning)

The importance of upskilling and reskilling in Finnish education system is markable. The possibility to change your career path through training or deepen your knowledge and know-how are seen strong elements of motivation.

Recognition of prior learning and individualization are the key elements to build the adult education model. Vocational institutions can offer the same qualifications or part of the qualifications to adults that are offered for the youth learners, the main difference is that adults study paths are more individualized and tailored than for youth. In Finland we have also models of TVET school-company collaboration, where the educational provider is training the companies' employees according to the competence and skills that are requested in the field.

7.7 Exchange programmes

Exchange programs for the students and staff is one of the easiest ways to start collaborating with the foreign partner. More information about the possibility of utilizing the Erasmus + funding is listed in chapter 8. Exchange programs are mainly established between the educational providers, like TVET schools with the goal of long-term partnership which are benefiting both parties and is in line with the education providers strategies.

7.8 Pathway and Dual Diploma study programs for students

Vocational programs for students with the model of 1+2 years, where training starts in Vietnam lasting one year and continues in Finland the following two years. Finnish educational providers are arranging the Finnish language studies for the students before they enter to study in Finland. So far, the studies have been executed together with the local companies, as an apprenticeship training model.

Many Universities of Applied Sciences bachelors offer a new Pathway Studies to Finland program. These programs consist of a one-year study period at home, after which you are eligible to apply to continue your studies in Finland as a degree student. The degrees are taught in English at selected UAS in Finland.

7.9 Studying and working in Finland

Non-EU citizens can study and work in Finland by following specific procedures and obtaining the necessary permits and visas.

According to the Finnish Vocational Education Act, the vocational education provider can organize fee-based commissioned training leading to VET qualification for groups outside of the EU and EEA regions. The clients (orderer and payer) for tailor made programs can be, for example a state, a county, a company, or an organization.

Vocational studies include on the job learning which helps to understand Finnish labor market practicalities and getting a job after easier graduation. Apprenticeship can also be an option during the studies.

It's crucial to note that the procedures and requirements may change, so it's essential to visit the official website of the Finnish Immigration Service Migri (<https://migri.fi/en/studying-in-finland>) for up-to-date and detailed information.

8. FINANCE AND FUNDING

There are different kinds of fundings available for the Finnish companies to operate in Vietnam and for the Vietnamese schools and institutes to collaborate with the Finnish partners.

One important aspect of the Vietnamese market is the outsourced funding. Vocational Institutions are used when collaborating with the foreign partner the partner usually is providing the funding alongside the services.

Fortunately, there are many options for the Finnish companies to get funding for their projects which are related to Vocational education.

As a part of Finnish education export services, Finnish VET providers and associated commercial organizations can engage in fee-based or commissioned training leading to official VET qualification registered into EDUFI's database. Such training cannot be financed through training providers' public funding.

Non-EU citizens can complete Finnish VET qualifications or modules through different types of arrangements; third party sponsored commissioned training or as a self-paying student studying outside of the EU. Currently there is no Finnish government funding available to sponsor international VET students.

“According to the Finnish Vocational Education Act, the Finnish vocational education provider can organize fee-based commissioned training leading to VET qualification for groups outside of the EU and EEA regions. The orderer and payer of the tailor made programs can be, for example, a state, a county, a company, or an organization. The education provider must collect from the subscriber of the training a fee covering at least the costs of organizing the program. The subscriber of the training has the right to charge the students participating in the subscription training according to the legislation of the state in which the subscriber is located or fees according to their own practice. “

Finance options for the Finnish companies	
Finnpartnership Office in Hanoi https://finnpartnership.fi/en/mita-on-liikekumppanuus-tuki/application-instructions-and-forms/	<p>Finnpartnership offers advice, project funding and contacts for companies pursuing business activities in developing countries.</p> <p>The most important service offered is Business Partnership Support, which is a kind of a start-up grant awarded for companies pursuing business activities in developing countries. Typically, the grant amounts to less than EUR 100,000, covering up to 85% of the costs of a project in the early stages.</p> <p>Finnpartnership services are free of charge, and they are intended for companies, civil society organizations and educational institutions.</p>

<p>Finnfund</p> <p>https://www.finnfund.fi/en/</p>	<p>Finnfund invests in responsible companies operating in developing countries.</p> <p>Finnfund's investment loans and capital investments typically range from EUR 2 million to EUR 10 million.</p> <p>Loans and investments are awarded to companies that are already showing strong proof of responsible and profitable business activities that promote sustainable development.</p> <p>Finnfund invests especially in the fields of renewable energy generation, infrastructure, finance, sustainable forestry, agriculture and digital solutions.</p>
<p>Oppiva Invest</p> <p>https://oppivainvest.fi/en/front-page/</p>	<p>Oppiva Invest provides funding to companies that offer solutions for vocational training, develop professional skills, learning and learning environments, or improve Finnish education exports. The common objective is to renew vocational learning and to create added value for students, teaching staff and working life.</p> <p>Funding rounds are opened annually in January, April and September.</p>
<p>The Centres for Economic Development, Transport and the Environment (ELY Centres)</p> <p>https://www.ely-keskus.fi/en/web/ely-en</p>	<p>ELY centers are responsible for the regional implementation and development tasks of the central government.</p> <p>Companies Development Funding is discretionary and meant for the companies that are starting new, out of ordinary operation model development projects.</p> <p>With the ELY funding companies can develop their business or create a new one. You may apply the funding for internationalization, product or service development, and for the investment.</p>
<p>Finnvera</p> <p>https://www.finnvera.fi/eng</p>	<p>Finnvera as an export finance provider</p> <p>Finnvera seeks to safeguard the competitiveness of Finnish enterprises in export markets by offering them export and project financing at rates comparable to those offered by our main commercial rivals to their export companies.</p> <p>For their part, financing arrangements enable the success of Finnish companies in international competition. Our clientele comprises not only companies but also domestic and international banks and financial institutions.</p> <p>Guarantees</p> <p>Your company may use the guarantees we provide as collateral for credit and other liability commitments received from banks or other financiers.</p> <p>Finnvera complements the financial markets and does not compete as a financing provider with other financiers but shares the risk inherent in the financing. The State of Finland is responsible for the guarantees granted by Finnvera.</p> <p>Loans</p> <p>Finnvera's primary form of financing is a guarantee, but companies can also apply for a loan directly from Finnvera, which only grant loans as part of the company's agreed overall financing.</p>

<p>Business Finland</p> <p>https://www.businessfinland.fi/en/for-finnish-customers/home</p>	<p>Innovation voucher – Purchase new knowledge and skills for your business.</p> <ul style="list-style-type: none"> – The Innovation voucher is intended for SMEs with a new product or service idea that has potential to grow internationally, and that cannot be implemented without external expertise. – In innovation voucher funding, the amount of aid is EUR 6,000, which is 100% of the amount of the purchased services excluding VAT. – You can spend this amount to buy services from one or several service providers. Your company can get this voucher only once. – The aid is transferred to your company after you have approved and paid for the work performed by the chosen service provider. <p>Exhibition Explorer – Participate in international exhibitions.</p> <ul style="list-style-type: none"> – The Exhibition Explorer funding is aid for participation in international B2B trade fairs held outside Finland. – The financing is intended for SMEs and midcap companies that want to increase the export of their own products or services. A company can have a presence at the trade fair at a joint stand or its own, separate stand. – The prerequisite for funding is for at least four Finnish SMEs or midcap enterprises to apply for Explorer Exhibition funding for the same trade fair. At least half of the group of enterprises must be SMEs. – SMEs may receive funding for a maximum of 50% and midcap enterprises for a maximum of 40% of the eligible costs. The maximum amount of funding that can be granted to an individual enterprise is EUR 35,000 per trade fair, while the minimum funding granted is EUR 1,000 per enterprise. The funding is paid in arrears. <p>Market Explorer – Conduct a market analysis.</p> <ul style="list-style-type: none"> – Market Explorer funding is intended for over 5 years old SMEs and midcap companies that have their own product, service or business model that is at least in the idea or pilot stage. The solution must have a credible competitive advantage in the international market. – With Market Explorer funding, you get information about a new international market to initiate operational measures to take your solution to. – The Market Explorer funding is provided as aid which your company does not need to return later. The funding is designed to cover expenses incurred in purchasing expert services, and for salaries of the company's own international business experts. – The people working for the project can be old employees of the company or people hired for the project. In addition, other costs will be accepted up to the amount of 20 percent of the sum of the purchased services and salaries. – The amount of Market Explorer funding is EUR 5,000–40,000, covering 50% of the total expenses of your project. Therefore, the total budget of your Market Explorer project may range from EUR 10,000 to EUR 80,000. – The maximum duration of a Market Explorer project is one year. – A company or a group of companies may receive Market Explorer funding several times. When granting funding, it is considered whether previous Market Explorer projects have led to international business. <p>Group Explorer – Investigate the possibilities of the export market with other companies.</p> <ul style="list-style-type: none"> – The Group Explorer funding service is aimed at groups of enterprises (4-10) to explore joint business opportunities in the international market.
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	<p>Talent – Renovate your company’s practices to utilize international experts.</p> <ul style="list-style-type: none"> – The funding is available to SMEs and midcaps seeking international growth with their own product, service, or business model that stands out from the competition. The goal of the funded measures should be to increase the internationalization skills of the company’s own personnel. – In addition to international growth, one goal is to increase the number of international experts working in Finland as a result of development projects. – The amount of Talent funding is EUR 20,000-50,000. Funding from Business Finland will cover 50% of the project costs, which can be between EUR 40,000 and 100,000. The funding is a non-repayable grant. No advance is paid – the full amount of the funding will be paid on completion of the final report. – Funding may be provided for companies at different stages of their internationalization.
<p>Erasmus +</p> <p>https://erasmus-plus.ec.europa.eu/</p>	<p>In Erasmus+ program there are number of development and networking activities, including strategic improvement of the professional skills of their staff, organizational capacity building, and creating transnational cooperative partnerships with organizations from other countries in order to produce innovative outputs or exchange best practices.</p> <p>Key actions:</p> <ul style="list-style-type: none"> – Learning mobility of individuals (students, staff, trainees, apprentices, youth workers and young people). – Cooperation among organizations and institutions. – Support for policy reform.
<p>Developing Markets Platform, Business Finland</p> <p>https://www.businessfinland.fi/en/for-finnish-customers/services/programs/developing-markets-platform</p>	<p>The Developing Markets Platform (DevPlat) offers funding, information and contacts to companies aiming to develop markets.</p> <p>DevPlat funding is available to companies that are developing innovative and scalable solutions for identified market opportunities in their target country and are willing to deepen their cooperation with local partners.</p> <p>The DevPlat helps companies to get funding from the World Bank Group and from regional development banks. This funding totals more than EUR 100 billion a year and it is available to procurement and projects in developing countries. In addition, companies can get advice and contacts with UN cooperation projects from the DevPlat</p>
Funding from the Finnish companies	Possibility to collaborate with the Finnish companies students studying in VietNam or in Finland (commissioned training for groups, ppenticeship model, tailored qualification programs or modules of qualification).
Funding from the Vietnamese or international companies in Vietnam	Possibility to collaborate with the Vietnamese or international companies in Vietnam (commissioned training for groups, on the job learning, qualifications, or modules of qualification).
Funding from the province, national or Ministry level in Vietnam	Funding for the Vietnamese TVET schools by the local authorities

European programs and networks	<p>Those participating in the Horizon 2020 program can directly seek funding, for example for a research and development project or for a researchers' exchange.</p> <p>With its invitations to tender, the European Space Agency ESA, for its part, acquires technology for satellites, space probes and their control.</p> <p>In the COST and EUREKA projects, each participant applies for funding separately, for example from national funding sources. Eurostar is a joint funding program of national funding organizations and the European Commission.</p>
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Table 16: Finance options for the Finnish companies

9. FUTURE STEPS

The need for future skills and competences, multi-professionalism, working life collaboration and teacher training are the fields and topics where Finland could be the foreign partner for the Vietnamese educational providers, institutes, and schools.

To support the TVET schools to achieve the goals in Vietnamese Vision 2045 one key factor is the teacher training. As stated in the goals of the Vision 2045, the TVET schools should be merged into larger units to offer multi-professional studies. These changes are challenging the teachers and management sector. Train the trainer programs for teachers to upskill them with pedagogical content and/or with subject knowledge.

Vietnam's demographics are heavily concentrated in youth and young adults. There will be a huge need for the training facilities, schools, and training centers to serve these students, and at the same time Vision 2045 is cutting the number of the schools. One solution is to offer study opportunities outside of Vietnam through pathway programs.

Another need from the Vietnamese educational providers is the foreign investment. The proportion of private and foreign-funded vocational training facilities is expected to rise to 45% by 2025 and 50% by 2030. This would mean that there could be joint interest from the Finnish companies who operate in Vietnam to train their workers in one of these vocational schools according to Finnish vocational curriculum.

In Finland, an increasing demand of the workforce is expected grow in the coming years across several sectors due to demographic shifts and digital transformation. The fields that are predicted to experience a growing workforce demand include technology and information technology, healthcare, construction, and infrastructure. This may give an opportunity to collaborate closely with the Finnish companies to ensure their workforce through TVET training models, as have been done already in many cities.

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Online Survey by EduCluster Finland and Gradia, May 2023

List of pictures, figures, and charts

- Picture 1: Map of Viet Nam
- Picture 2: Service sector share of GDP and employment in Vietnam 2010 and 2019. Harnessing the potential of the services sector for growth. World Bank 2023.
- Picture 3: Governments' Commitment and Efforts for the SDGs Score versus SDG Index Score
- Picture 4: Population Growth of Viet Nam, 1990-2100, Viet Nam Technical and Vocational Education and Training Sector Assessment
- Picture 5: Population pyramid of Vietnam, 1990-2020, Viet Nam Technical and Vocational Education and Training Sector Assessment
- Picture 6: Vietnamese education system
- Picture 7: The actors in TVET in Vietnam. Picture from Flake et al.2017,68. TVET@sia article 31.1.2023.
- Picture 8: Basic overview of Viet Nam's TVET system and different school forms. Viet Nam Technical and Vocational Education and Training Sector Assessment 2020
- Picture 9: Training system for Vocational Education and Training Teachers and Lecturers. Viet Nam Technical and Vocational Education and Training Sector Assessment 2020
- Picture 10: Teachers Training Curricula. Viet Nam Technical and Vocational Education and Training Sector Assessment 2020.
-
- Chart 1: Qualification achieved by male (age group 18 years old). Pham Ngoc Toan.
- Chart 2: Qualification achieved by female (age group 18 years old). Pham Ngoc Toan.
- Chart 3: 18-year-old people working by gender and branch. Pham Ngoc Toan.
- Chart 4: Labor force Growth 2000-2015 and Projections to 2020, Viet Nam Technical and Vocational Education and Training Sector Assessment report. 2020
- Chart 5: Labor Force by sector, Viet Nam Technical and Vocational Education and Training Sector Assessment report. 2020
- Chart 6: The volume and structure of highest technical qualification achieved by sex. (age group 18 years old). Pham Ngoc Toan
- Chart 7: Structure of 18-year-old working people by sex and region in 2021. Pham Ngoc Toan
- Chart 8: Professional background of the respondents. ECF Online survey 2023
- Chart 9: Region to operate of the respondents. ECF Online survey 2023
- Chart 10: Number of TVET schools in Vietnam. ECF Online survey 2023
- Chart 11: Learning facilities in TVET schools. ECF Online survey 2023
-
- Table 1: Development solutions: TVET facilities, type of ownerships, quality and enrolment from Decision no 73/GQ-TTg 10.2.2023. Table Pauliina Holm.
- Table 2: Development solutions: Development of vocational education and training teaching staff and managers from Decision no 73/GQ-TTg 10.2.2023. Table Pauliina Holm.
- Table 3: Development solutions: Investment in training amenities and equipment from Decision no 73/GQ-TTg 10.2.2023. Table Pauliina Holm.
- Table 4: Teachers professional development. ECF Online survey 2023
- Table 5: Upskilling training for teachers. ECF Online survey 2023
- Table 6: Qualified teachers and managers in vocational education. ECF Online survey 2023
- Table 7: Collaboration with companies and working life. ECF Online survey 2023
- Table 8: Curriculum development. ECF online survey 2023.
- Table 9: Importance of the development targets. ECF Online survey 2023

ANNEX

ANNEX 1.

Decision no 73/QĐ-TTg: February 10.2023 Approving the planning for Vocational education and training facility (institutes) network of 2021-2030 period and vision to 2045. Compiled from the text into table by Pauliina Holm

Approving the planning for vocational education and training facility network of 2021-2030 period and vision to 2045

Name of the solution, Solutions relating to...	number of subsolutions
1 Policies and regulation	4
2 Human resource development	8
3 Improvement of training amenities and equipment	4
4 The environment, science and technology	3
5 Connection and development cooperation	4
6 Education and dissemination	3
7 International cooperation	3
8 Mobilization and allocation of investment	3
9 Management model and mode of operation	3
10 Organizing implementation and planning supervision, implementation	10

Picture: Solutions from Decision no 73/QĐ-TTg 10.2.2023 Prime minister of Vietnam

Each of the solutions consist multiple subsolutions which can be divided to smaller implementations

2 Region -based network distribution until 2030

	Northern Mid	Red River Delta	North central	Central high	Southeast	Mekong River Delta
Approximately % nationwide TVET facilities focusing occupations and fields under approved regional planning	14	26	26	60	17	11
Among which act as regional centers, number	1 or 2	2 or 3	1 or 2	1 or 2	2 or 3	1 or 2
Among which act as national centers, number	0	2 or 3	1 or 2	0	1 or 2	1 or 2

3 Development of vocational education and training teaching staff and managers					
		2020	2023	2025 goals	2030 goals
I TVET teaching staff					
regarding quantity					
teachers number		N/A		70 000	67 000
craftsmen, experts, TVET teachers in all level		N/A		14000	50 000
regarding quality					
teachers have mastered degrees or higher %		N/A		50	70
teachers in key occupational fields have one level higher TVET qualification than the TVET qualification required for teachers %				20	30
teachers approach the level of ASEAN-4 and G20 %				60	65
II TVET Managers					
regarding quantity					
managers number		N/A	N/A	26 000	25 000
managers number including national centers, regional centers				400	800
regarding composition				270	280
women held TVET manager positions in regulatory authorities and leadership positions in local governments %				60	75
regarding quality					
managers of high quality schools and national centers approach qualification level of ASEAN-4 and G20 %				30-40	70

4 Investment in training amenities and equipment					
			2025 goals	2030 goals	2050
Regarding land area for construction of TVET facilities					
resolution No 39/2021/QH15 for land use 2021-2030				2021-2030	
5-year National plan for land use 2021-2025			2021-2025		vision 2050
vision 2050					
regarding quality of amenities and structures of TVET facilities					
TVET facilities have sufficient number of structures with sufficient space, satisfy construction, design standards and amenity standards for practice experiment, and testing depending on fields of training %			80	100	
TVET facilities approach ASEAN and world standards %			30	50	
Training equipment in key occupations					
Training equipment invested in a modern, smart and green manner that meets technology, technical conditions of production capability %			85		
Training equipment invested in a modern, smart and green manner that meets technology, technical conditions of production capability and satisfies requirements of new vocations, skills %				95	

ANNEX 2.

Decision no 73/QĐ-TTg: February 10.2023 Approving the planning for Vocational education and training facility (institutes) network of 2021-2030 period and vision to 2045. Development solutions. Compiled from the text into table by Pauliina Holm

1 Vocational education and training facilities, type of ownership, quality and enrolment					
III development solutions (from text into the table by Pauliina Holm 5/2023)					
		2020	2023	2025 goals	2030 goals
I Network composition					
1 total		N/A	N/A	1800	1700
2 colleges		N/A	N/A	400	380
3 intermediate schools		N/A	N/A	400	390
4 VET centers		N/A	N/A	1000	930
5 regional centers		N/A	N/A	6	12
II Types of ownership					
public VET total		N/A	N/A	980	850
public colleges		N/A	N/A	290	260
public intermediate schools		N/A	N/A	130	110
public VET centers		N/A	N/A	560	480
Foreign-invested VET total		N/A	N/A	820	850
foreign-invested colleges		N/A	N/A	110	120
foreign-invested intermediate schools		N/A	N/A	270	280
foreign-invested VET centers		N/A	N/A	440	450
III High quality colleges					
total		N/A	N/A	70	90
ASEAN-4 level		N/A	N/A	40	60
G20 level		N/A	N/A	3	6
IV Enrolment and training scale					
by training level					
people (million)/year		N/A		2 700	4 000
of which % have college intermediate level		N/A		25	25-30
By occupation sector					
of which (million) in industrial and construction		N/A		1 030	1 800
of which (million) in agro-forestry-fishery		N/A		670	600
of which (million) in service sector		N/A		1 000	1 600

3 Development of vocational education and training teaching staff and managers					
	2020	2023	2025 goals	2030 goals	
I TVET teaching staff					
regarding quantity					
teachers number	N/A		70 000	67 000	
craftsmen, experts, TVET teachers in all level	N/A		14000	50 000	
regarding quality					
teachers have mastered degrees or higher %	N/A		50	70	
teachers in key occupational fields have one level higher TVET qualification than the TVET qualification required for teachers %			20	30	
teachers approach the level of ASEAN-4 and G20 %			60	65	
II TVET Managers					
regarding quantity					
managers number	N/A	N/A	26 000	25 000	
managers number including national centers, regional centers			400	800	
regarding composition			270	280	
women held TVET manager positions in regulatory authorities and leadership positions in local governments %			60	75	
regarding quality					
managers of high quality schools and national centers approach qualification level of ASEAN-4 and G20 %			30-40	70	

4 Investment in training amenities and equipments							
		2020	2023	2025 goals	2030 goals	visio 2045	vision to 2045
1. Regarding Land area							
No 39/2021/QH15		N/A	5-year plan 21-25		No 39/2021/QH15		vision to 2050
2. regarding quality of amenities and structures							
sufficient number of structures %		N/A	N/A	1000	930		
standards of ASEAN4 %		N/A	N/A	30	50		
3. Training equipment							
Key occupations and occupational fields							
Modern, smart and green manner that meets							
technology, tech conditions and production capacity %				85	95		

ANNEX 3.

A short comparison of the key differences between Vietnamese vocational education and Finnish vocational education

Structure and Organization:	<u>VIETNAM</u> : Vocational education and training in Vietnam is primarily organized within a centralized system, overseen by the Ministry of Labour, Invalids, and Social Affairs (MOLISA). It consists of various vocational training centers and schools, both public and private, offering a wide range of vocational programs	<u>FINLAND</u> : In Finland, vocational education and training is decentralized and highly integrated with general education. It is based on a dual model, combining school-based education and workplace training. VET is offered by vocational institutions known as vocational colleges or schools, and they work closely with local industries and employers.
Duration and Pathways:	<u>VIETNAM</u> : VET programs in Vietnam typically last for two to three years, providing students with specific technical skills and knowledge for a particular occupation. There are various levels of VET, including intermediate, college, and university-level vocational programs.	<u>FINLAND</u> : Vocational education system in Finland flexible and is available for young and adult learners. VET programs usually last for three years, but every learner has their personal development plan. Prior learning is taken into account, and it shortens the study time. Finnish students can choose from a broad range of vocational programs, and after completing their studies, they can progress to higher education or enter the workforce.
Pedagogy and Teaching Methods:	<u>VIETNAM</u> : Traditional teaching methods and rote learning are often prevalent in Vietnamese vocational education. Classroom-based instruction is dominant, with a focus on theory and technical knowledge. Practical training is also provided, but it may have limitations in terms of equipment and resources.	<u>FINLAND</u> : Vocational education in Finland emphasizes a student-centered approach, with a strong focus on practical, hands-on learning. The curriculum combines theoretical studies with authentic workplace experiences. Learning takes place in well-equipped vocational institutions, simulated work environments, and actual workplaces through apprenticeships or internships.
Working life collaboration and Work-Based Learning:	<u>VIETNAM</u> : While there are partnerships between vocational schools and industries in Vietnam, the level of collaboration and work-based learning opportunities can vary. Some programs offer internships or apprenticeships, but there is room for further development in terms of industry involvement and practical training.	<u>FINLAND</u> : Work-based learning is a central aspect of vocational education in Finland. Vocational institutions have close ties with employers, ensuring that students receive practical training and work experience relevant to their chosen field. Apprenticeships and internships are integral components of the curriculum, allowing students to apply their skills in real work settings.
Perception and Status:	<u>VIETNAM</u> : Historically, vocational education in Vietnam has been perceived as a secondary option compared to general education or university studies. However, there has been a shift in recent years, with efforts to improve the status and recognition of vocational education as a viable career pathway. Strategy 2021-2030 emphasizes the importance of vocational training in all decision-making and at different levels.	<u>FINLAND</u> : vocational education enjoys a high level of prestige and is considered a respected career pathway. It is valued for its strong alignment with the needs of the labor market and the emphasis on practical skills development.

Online Survey by EduCluster Finland and Gradia, May 2023

Background information

☐ Female

☐ Male

- Ministry level / national level officer
- Regional level officer
- School management /board member
- School principal /leader
- Head teacher /teacher
- Other officer, specialist in vocational education

- ☐ I Northern midland and mountainous region
- ☐ II Red River Delta
- ☐ III North central coast and central coast
- ☐ IV Central highland
- ☐ V Southeast region
- ☐ VI Mekong River Delta
- ☐ National level

[illegible]

Vocational Education and Training facilities

Vocational schools in VietNam	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
There are enough public vocational schools to ensure access to TVET in my opinion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are enough private vocational schools to ensure access TVET in my opinion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Training facilities, learning environments are functional for teaching and learning in vocational education.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Training facilities, learning environments support the specific vocational fields and curriculum implementation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In vocational schools there are functional electricity, enough computers and internet connections are available.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vocational schools are offering the field of studies that are needed in working life now.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vocational schools are offering the field of studies that are needed in working life in future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are enough vocational schools which offer multiple study fields and professions in VietNam.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please tell more about the TVET facilities in VietNam.

Qualified teachers and managers in vocational education and training

The level of qualified teachers and management in TVET	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
There are clear requirements for qualified teachers and management level officers in vocational education and training	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Managers and principals are qualified	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vocational education teachers are qualified	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please, tell more about your qualification and experience or common requirements for teachers, managers.

Upskilling training offered for teachers	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
There is enough resources for the teachers' upskilling training.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are enough options to choose when participating upskilling training programs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In my opinion there should be more content about Digital skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In my opinion there should be more content about pedagogy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In my opinion there should be more content about Entrepreneurship.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Tell more about the training you have participate during your career?

What kind of skills and competences you wish to gain for the future development of vocational education and training?

Curriculum, pedagogy and reform

Curriculum in vocational education	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Curriculum in vocational education is built with influence from the working life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Curriculum in each vocational field is built to meet the requirements of the working life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reform of Technical and Vocational Education and Training (TVET) in VietNam	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I am familiar with the "Reform of TVET in VietNam" programme.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have been involved with the "Reform of TVET in VietNam" programme.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have participated the training offered by the programme.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Which project region are you operating in (if any)?

Working life collaboration

Collaboration with the companies and working life	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
There is enough collaboration between vocational schools and companies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Companies are involved with vocational education through projects implemented together with students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Companies are involved with vocational education through internships.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are on the job learning periods for students in companies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students have working periods in enterprises as a part of their studies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The time period which students are working in companies during their studies is long enough.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Companies are involved in curriculum work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Tell more about the school-company collaboration

Pedagogy used in vocational education

Pedagogy and methods in vocational education	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Student centred pedagogy is used in vocational education.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online lessons are used as part of the teaching.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In your opinion which pedagogical approaches are used in vocational education?

Development targets in Vocational Education and Training (TVET) sector. Please put in order in your opinion.	1. The most important	2	3	4	5	6	7	8. The least important
a) Teacher training	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Training for the management, leaders and principals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Pedagogical solutions and applications to be used in daily teaching and learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Building the model for effective collaboration with the working life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Curriculum development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Supporting the adult education and upskilling opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g) Providing teaching and learning materials for the teachers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h) Funding and resources from foreign investors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thank you for your answers.

All the questionnaires are handled confidentially and anonymously.