



CASE FINLAND

SKILL ENERGY BSR SKILL ALLIANCE ENERGY SAVING AND SUSTAINABLE CONSTRUCTION IN BALTIC SEA REGION

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SKILL ENERGY BSR CASE FINLAND

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The purpose of this thesis is to inform about the educational system in Finland with a focus on Vocational Education and Training and the available energy/energy efficiency and technical insulation related VET programmes.

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1 EDUCATION IN FINLAND

1.1 Introduction

In Finland, the basic right to education and culture is recorded in the Constitution of Finland. Public authorities must secure equal opportunities for every resident in Finland to get education also after compulsory education and to develop themselves, irrespective of their financial standing. Legislation provides for compulsory education and the right to free pre-primary and basic education. Most other qualifying education is also free of charges for the students, including postgraduate education at universities.

Education is a factor for competitiveness. The current priorities in educational development are to raise the level of education and upgrade competencies among the population and the work force, to improve the efficiency of the education system, to prevent exclusion among children and young people, and to enlarge adult learning opportunities. Special attention is also paid to quality enhancement and impact in education, training and research and to internationalization.

Finnish National Board of Education 2011. Education Structure. Referred 7.5.2013

http://www.oph.fi/english/education/overview_of_the_education_system

Finland has one of the world's best performing education systems. Thanks to years of steady progress in education reform, its secondary school students regularly achieve high scores in PISA tests. The gap between the highest and lowest performers within schools is small, and there is little variation among schools or among pupils of differing family backgrounds.

One reason for Finland's success is the high degree of personal responsibility conferred on both teachers and students. In the 1970s and 1980s, management of Finland's school system was decentralized and traditional academic structures in upper secondary schools were replaced by flexible modular structures, giving pupils more

choice in what they study. Teachers were given freedom to design their curriculum and choose textbooks.

Schools in Finland are focal centers for their communities. They provide a daily hot meal for every student, plus health and dental services, psychological counseling and a broad array of other services for students and their families. They are mostly small in size, with minimal administrative overheads, and are mainly funded by municipal budgets. Principals are expected to take their share of the teaching load, even in large schools.

Teachers share a strong personal and professional commitment to helping students succeed. They assess their students on an ongoing basis, but also focus on helping them to take increasing responsibility for their own learning. Students are expected to work in teams on projects, preferably cutting across traditional subject or disciplinary lines.

A particular feature of the Finnish system is the “special teacher.” This is a specially trained teacher assigned to each school whose role is to work with class teachers to identify students needing extra help, and then work individually or in small groups with these students to provide the support they need to keep up with their classmates

Pearson Foundation.OECD Finland 2013. Referred 7.6.2013

<http://www.pearsonfoundation.org/oced/finland.html>

1.2 Background to Finland’s Educational Success

Finland’s success in education builds on the following:

1.2.1 Equal Opportunities

The Finnish education system offers everybody equal opportunities for education, irrespective of domicile, sex, economic situation or linguistic and cultural background. The school network is regionally extensive, and there are no sex-specific

school services. Basic education is completely free of charge (including instruction, school materials, school meals, health care, dental care, commuting, special needs education and remedial teaching).

1.2.2 Comprehensiveness of Education

Basic education encompasses nine years and caters for all those between 7 and 16 years. Schools do not select their students but every student can go to the school of his or her own school district. Students are neither channelled to different schools nor streamed.

1.2.3 Competent Teachers

On all school levels, teachers are highly qualified and committed. Master's degree is a requirement, and teacher education includes teaching practice. Teaching profession is very popular in Finland, and hence universities can select the most motivated and talented applicants. Teachers work independently and enjoy full autonomy in the classroom.

1.2.4 Student Counseling and Special Needs Education

Individual support for the learning and welfare of pupils is well accommodated, and the national core curriculum contains guidelines for the purpose. Special needs education is integrated into regular education as far as possible. Guidance counselor support upper grade students in their studies and choice of further education.

1.2.5 Encouraging Assessment and Evaluation

The student assessment and evaluation of education and learning outcomes are encouraging and supportive by nature. The aim is to produce information that supports both schools and students to develop. National testing, school ranking lists and inspection systems do not exist.

1.2.6 Significance of Education in Society

Finnish society strongly favors education and the population is highly educated by international standards. Education is appreciated and there is a broad political consensus on education policy.

1.2.7 A Flexible System Based on Empowerment

The education system is flexible and the administration based on the principal of “Centralized steering – local implementation”. Steering is conducted through legislation and norms, core curricula, government planning and information steering. Municipalities are responsible for the provision of education and the implementation. Schools and teachers enjoy large autonomy.

1.2.8 Co-operation

Interaction and partnerships are built at all levels of activity. There is co-operation for the development of education between various levels of administration, between schools and between other social actors and schools. Education authorities co-operate

with teachers' organizations, pedagogical subject associations and school leadership organizations. This provides strong support for the development.

1.2.9 A Student-oriented, Active Conception of Learning

The organization of schoolwork and education is based on a conception of learning that focuses on students' activity and interaction with the teacher, other students and the learning environment.

Finnish National Board of Education. Education 2012. Referred 7.5.2013

<http://www.oph.fi/english/education>

2 FINNISH EDUCATION STRUCTURE

2.1 Fundamental Principles

Education is considered to be one of the fundamental rights of all citizens.

The main objective of Finnish education policy is to offer all citizens equal opportunities to receive education, regardless of age, domicile, financial situation, sex or mother tongue.

Firstly, provisions concerning fundamental educational rights guarantee everyone (not just Finnish citizens) the right to free basic education; the provisions also specify compulsory education. Secondly, the public authorities are also obligated to guarantee everyone an equal opportunity to obtain other education besides basic education

according to their abilities and special needs and to develop themselves without being prevented by economic hardship.

In addition, the public authorities are obligated to provide for the educational needs of the Finnish- and Swedish-speaking population according to the same criteria. Approximately 5.5 % of the population have Swedish as their mother tongue. Both language groups have the right to education in their own mother tongue. Regulations on the language of instruction are stipulated in legislation concerning different levels of education. The entirely Swedish-speaking Province of Åland has its own educational legislation.

Finnish National Board of Education. Education 2011. Referred 7.5.2013

http://www.oph.fi/english/education/overview_of_the_education_system

7.5.2013

2.2 Education Policy

Education policy is built on the lifelong learning principle.

The principle of lifelong learning entails that everyone has sufficient learning skills and opportunities to develop their knowledge and skills in different learning environments throughout their lifespan. This viewpoint is integrated into education policy and other policy sectors relating to education and training. The aim is a coherent policy geared to educational equity and a high level of education among the population as a whole.

The key words in Finnish education policy are quality, efficiency, equity and internationalization. Geared to promote the competitiveness of Finnish welfare society, education is also seen as an end in itself. The broad lines of Finnish education and science policy are in line with the Europe 2020 Strategy.

Decisions on the contents of legislation on education and research are made by the Parliament based on government proposals. The Government and the Ministry of Education and Culture, as part of it, are responsible for preparing and implementing education and science policy.

2.3 Relevant Programmes and Projects

The Government Programme, an action plan agreed on by the parties represented in the Government, sets out the main functions of the Government.

According to the Government Programme, the competitiveness of Finnish labor requires a well-functioning educational system. The best comprehensive school system in the world will be strengthened to guarantee equal opportunities for all. Education is an end in itself. On the international stage, Finland will aim for the top in professional expertise, higher education as well as research, development and innovation activities.

The cross-administrative youth guarantee took effect from the start of 2013. The educational guarantee as part of the youth guarantee will offer everyone who has just completed comprehensive school a place in further education or training. A temporary skills programme will be organized for young adults. The purpose is to make it possible for young people less than 30 years with only basic education, or lacking even this, to complete a vocational qualification.

The polytechnic reform recorded in the Government Programme started in 2011 with the aim of transferring their financing from local authorities to the government while altering the legal personality of the polytechnics. The purpose of this is to expedite the structural reform of polytechnics and to improve the quality and impact of their operation.

Together with higher education institutions, the Ministry of Education and Culture will agree upon a reform of student admissions and study structures by the end of 2015 to facilitate access to higher education.

2.4 Education and Research Development Plan

Promoting equality in education at comprehensive school level is a key part of the Development Plan. An effort will be made to reduce differences between schools, for example by developing the financing system.

The Education and Research Development Plan promotes equality and is the key document of the Finnish education and research policy. The Development Plan is adopted by the government every four years, and it directs the implementation of the education and research policy goals stated in the Government Programme.

The Development Plan covers all forms of education from early childhood to adult education as well as research conducted in universities and polytechnics.

The key objectives of the Development Plan include:

- promoting equality in education,
- enhancing the quality of education at all levels and;
- supporting lifelong learning

Finnish Ministry of Education and Culture 2013. Objectives and Programmes. Referred 7.5.2013

http://www.minedu.fi/OPM/Koulutus/koulutuspolitiikka/linjaukset_ohjelmat_ja_hankeet/?lang=en

The focus in the period 2011–2016 is on alleviation of poverty, inequality and exclusion, stabilizing the public economy and fostering sustainable economic growth, employment and competitiveness.

Finnish Ministry of Education and Culture 2013. Education Policy. Referred 13.5.2013

<http://www.minedu.fi/OPM/Koulutus/koulutuspolitiikka/?lang=en>

2.5 Finnish Acts and Decrees Concerning Education

2.5.1 Early Childhood Education and Care

Children's daycare act, stipulates the entitlement of children to day care and the responsibility of municipalities to arrange day care.

Children's Daycare Decree covers its practical arrangement.

2.5.2 Basic Education

Basic Education Act prescribes on the principles of basic education as well as pre-primary education, education for immigrants and voluntary additional basic education.

Basic Education Decree prescribes on the working time, instruction, groups, evaluation and assessment, pupils' rights etc.

2.5.3 General Upper Secondary Education

General Upper Secondary Schools Act prescribes on the aims of general upper secondary education, its organization, instruction, curricula, publicity of education, assessment, matriculation examination etc.

General Upper Secondary Schools Decree prescribes on e.g. instruction, counseling, planning the education, assessment, legal rights of the student.

Decree on the General National Objectives of Upper Secondary Education and the Distribution of Lesson Hours.

Act on the provision of matriculation examination.

Matriculation Examination Decree prescribes on the organization, examinations, examiners, assessment and examinees

2.5.4 Vocational Education and Training

Vocational Education and Training Act prescribes on the vocational upper secondary education and vocational upper secondary degrees, e.g. provision of education and training, instruction, curricula, on-the-job learning, apprenticeship training, special needs education, evaluation and assessment

Vocational Education and Training Decree prescribes on the following: studies and their scope, counseling, on-the-job learning, apprenticeship training, special needs education, assessment and evaluation.

Vocational Adult Education Act prescribes e.g. on the contacts to the world of work, provision of education, further education and training, students' rights and obligations, competence-based qualifications, evaluation and assessment and funding.

Vocational Adult Education Decree prescribes on the requirements for competence-based qualifications.

Decree on the labor policy of vocational adult education and training prescribes e.g. on acquiring education and students' financial aid.

2.5.5 Higher Education

Decree on the higher education degree system

Polytechnics Act prescribes e.g. on the following: administration, steering and evaluation, language of instruction, degrees, student admission, teachers and other staff, funding.

Polytechnics Decree prescribes e.g. the following: administration, the scope, structure and aim of studies, qualifications, training programmes.

Universities Act. The new Universities Act will further extend the autonomy of universities by giving them an independent legal personality, either as public corporations or as foundations under private law. At the same time, the universities' management and decision-making system will be reformed. The new law replaced the Universities Act of 1997. *Universities Decree* prescribes on the instruction, students and staff.

Act on the implementation of the Universities Act.

Government Decree on University Degrees provides for lower and higher university degrees and scientific and artistic postgraduate degrees referred to in the Universities Act.

2.5.6 Liberal Education

Act on Liberal Adult Education prescribes on liberal adult education institutions and aims at supporting lifelong learning and promoting equality and democracy in society.

Decree on Liberal Adult Education prescribes on the administration, studies and financing of liberal adult education.

Act on Basic Education in the Arts. The act defines basic education in arts, its aims, organization, curriculum, evaluation, assessment etc.

Decree on Basic Education in the Arts prescribes on the contents and scope as well as assessment in basic education in the arts.

2.5.7 Students

Decree on the Joint Application System of General and Vocational Upper Secondary Education.

Polytechnics' Joint Application System Decree.

Act on Financial Aid for Students The act prescribes on the studies that entitle to students' financial aid.

Decree on Financial Aid for Students prescribes on the eligibility for students' financial aid and procedures.

Act on school transport subsidy of general and vocational upper secondary education students.

Decree on the school transport subsidy for general and vocational upper secondary education students.

2.5.8 Administration

Act on the administration of education and training provided by the state and private organizations.

*Act on European Schooling Helsinki
Government Decree on European Schooling Helsinki*

Act on Central Government Transfers to Local Governments.

The act prescribes on the statutory government transfers and their calculation.

Decree on Central Government Transfers to Local.

The act prescribes on the statutory government transfers and their calculation.

Act on the Financing of the Provision of Education and Culture. The act prescribes on the statutory government funding of education and culture. *Decree on the Financing of the Provision of Education and Culture* prescribes on the principles of the funding of education.

Education Evaluation Decree.

The decree on the tasks and composition of the Finnish Education Evaluation Council. *Act on Eligibility Provided by Foreign Higher Education Studies for Public Posts in Finland.*

The act prescribes on the validity of higher education degrees taken abroad for Finnish state of municipal posts.

Decree on Eligibility Provided by Foreign Higher Education Studies for Public Posts in Finland. The decree prescribes on the validation of higher education degrees taken abroad.

Decree on the Implementation of the General System of Recognition of Professional Qualifications of EC Citizens. The decree prescribes on the procedure of applying for the recognition of qualifications.

Act on National Certificates of Language Proficiency. The act prescribes on the administration, assessment, and fees.

Decree on National Certificates of Language Proficiency. The decree prescribes on the composition and tasks of the Language Proficiency Test Committee.

2.5.9 Teachers

Teaching Qualifications Decree prescribes on the qualification requirements of educational staff.

Teachers' education act.

Teachers' education decree lists the faculties providing for teacher education. It prescribes on e.g. qualifications of the teachers, their tasks, academic year etc.

Act on Vocational Teacher Training prescribes on vocational teacher education, e.g. aims, administration and steering, instruction and studies, student admission, teachers.

Decree on Vocational Teacher Training prescribes on the following: studies and aims, degree structure, requirements for staff at vocational teacher education colleges.

Finnish Ministry of Education and Culture 2013. Legislation. Referred 15.5.2013
http://www.minedu.fi/OPM/Koulutus/koulutuspolitiikka/lait_ ja_ ohjeet/?lang=en

2.6 Financing of Education

In Finland education is free at all levels from pre-primary to higher education. Adult education is the only form of education that may require payment.

In pre-primary and basic education the textbooks, daily meal and transportation for students living further away from the school are free for the parents. At secondary level and in higher education the students themselves or their parents purchase their

own books. At secondary level the students have the right to a free meal and in higher education meals are subsidized by the state.

To ensure the opportunities to study for everyone there is a well-developed system of study grants and loans. Financial aid can be awarded for full-time study in an upper secondary school, vocational institution or institution of higher education.

2.7 Education Funding

Most institutions providing basic and upper secondary level education are maintained by local authorities or joint municipal boards. Responsibility for educational funding is divided between the State and the local authorities. Most private institutions do not differ from those that are publicly maintained. They follow the national core curricula and qualification requirements. They also receive public funding.

Pre-primary and basic education is part of the municipal basic services that receive statutory government transfers. The statutory government transfer is based on the number of 6-15 year olds living in the municipality and the special conditions of the municipality. This funding is not ear-marked and the municipality can decide for itself how it allocates this funding. The statutory government transfer for municipal basic services is approximately a third of the calculatory costs.

The funding for upper secondary education and vocational education and training is based on the number of students reported by the school as well as on the unit prices set by the Ministry of Education and Culture.

In the funding of polytechnics the Government allocates resources in the form of core funding, which is based on unit costs per student, project funding and performance-based funding. For example completed degrees are part of performance-based funding. Polytechnics also have external sources of funding. Both in vocational training and in the funding of polytechnics the education providers are encouraged to improve their results through performance-based funding.

Finnish universities are independent corporations under public law or foundations under private law. Each university and the Ministry of Education and Culture set operational and qualitative targets for the university and determine the resources required every three years. The agreement also defines how these targets are monitored and evaluated. Universities receive funding from the state but they are also expected to raise external funding.

Finnish Ministry of Education and Culture. Financing 2013. Referred. 7.5.2013

<http://www.minedu.fi/OPM/Koulutus/koulutuspolitiikka/rahoitus/?lang=en>

3 THE FINNISH EDUCATIONAL SYSTEM

3.1 Objectives

A major objective of Finnish education policy is to achieve as high a level of education and competence as possible for the whole population. One of the basic principles behind this has been to offer post-compulsory education to whole age groups. In international terms, a high percentage of each age group goes on to upper secondary education when they leave comprehensive school: more than 90 % of those completing basic education continue their studies in general upper secondary schools or vocational upper secondary education and training. Issues of educational equality are among the key topics in the new Development Plan for Education and Research for 2007–2012. Its objectives include raising the level of education of the population. The aim is that 92.5 % of the age group 25–34 –years-olds will by 2015 pass an examination on upper secondary or tertiary level.

The general structure of education reflects these principles through building open avenues and avoiding dead ends which would lead offside after inconsiderate choices at whatever junction.

Finnish National Board of Education 2011. Education Structure. Referred 7.5.2013

http://www.oph.fi/english/education/overview_of_the_education_system

3.2 Educational Forms

The Finnish education system is composed of:

- Voluntary pre-primary education (6 years old)
- Basic education (7-16 years old)
- Upper secondary education, comprising general upper secondary education and vocational education and training (vocational qualifications and further and specialist qualifications)
- Higher education, provided by universities and polytechnics

3.3 Learning Pathway

In Finland, pre-primary education, basic education and upper secondary education and training, complemented by early childhood education and before- and after-school activities, form a coherent learning pathway that supports children's growth, development and well-being.

The Finnish education system has no dead-ends. Learners can always continue their studies on an upper level of education, whatever choices they make in between. The practice of recognition of prior learning has been developed in order to avoid unnecessary overlapping of studies.

Students' opportunities to progress from one level of education to the next are safeguarded by legislation. Both general and vocational upper secondary certificates provide eligibility for further studies.

Higher education is offered by universities and polytechnics. Both sectors have their own profiles. Universities emphasize scientific research and instruction. Polytechnics, also known as universities of applied sciences, adopt a more practical approach. Adult education is provided at all levels of education. Adults can study for a general education certificate or for a vocational qualification, or modules included in them, take other courses developing citizenship and work skills, or pursue recreational studies.

Finnish Ministry of Education and Culture 2013. Education System. Referred 3.6.2013

<http://www.minedu.fi/OPM/Koulutus/koulutusjaerjestelmae/?lang=en>

3.4 Finland's Success in the PISA Survey

PISA (The Programme for International Student Assessment) is a joint survey of the OECD member countries and a number of other countries.

The tests are administered in schools every three years to 15-year-olds in the domains of mathematics, science, reading literacy and problem-solving skills.

The survey will assess how 15-year-olds master the essential knowledge and skills necessary for work and the quality of life in future society. The survey will not directly assess how well students master the actual contents of the curricula.

The skills of Finnish students were among the best in all domains assessed in PISA surveys. The uniformity of students' performance is a special forte in Finland. The differences between the strongest and weakest results in Finland are among the smallest in the survey. Differences between schools and regions are also remarkably small in Finland. Differences in performance were very slight between various language groups in Finland, and the socio-economic back-ground has a lower impact on students' performance than in the other PISA countries. A significant implication is

that high performance can be achieved with relatively low differences in performance between students.

Finnish students spend less time per week studying than their counterparts in the OECD countries on average and the annual expenditure on education is the OECD average. The reason for Finland's success is therefore not due to these factors.

Finnish Ministry of Education and Culture 2013. OECD PISA Survey. Referred 3.6.2013

<http://www.minedu.fi/OPM/Koulutus/artikkelit/pisa-tutkimus/?lang=en>

The results of PISA study showed that the influence of family background is less marked in Finland than the OECD average. In the PISA 2000 and 2003 studies, Finnish students have reached very high learning results in reading literacy, in mathematics, science and in problem solving. In Finland, the gap between high and low performers was relatively narrow, and the variation between schools was the second smallest among OECD countries. The Finnish comprehensive school seems to be successful in reaching both high quality and equality at the same time and Finland does this with rather low costs. The level of expenditure is below OECD average.

Unesco, International Bureau of Education. Finland 2007. Referred 7.6.2013

http://www.ibe.unesco.org/fileadmin/user_upload/Inclusive_Education/Reports/sinai_a_07/finland_inclusion_07.pdf

3.4.1 Background for Finnish PISA Success

International comparisons of learning outcome are not without problems. Every education system reflects the culture and history of the country concerned, and good practices cannot be transferred as such from one country to another.

Finland's success is largely explained by:

- the education system (uniform basic education for the whole age group)

- highly competent teachers, and;
- autonomy given to schools

Other notable features that go towards explaining the success are:

Finnish society is positivistic with regard to education. Nearly three in four Finns aged 25–64 have at least an upper secondary school certificate (matriculation examination or vocational qualification) and one in three has a higher education degree. The completion of basic (compulsory) education is a requirement for further studies. Only approximately 1% of each age group leaves basic education without a certificate, and over half of those complete their education in one way or another at a later stage.

Only the core curricula are designed for nationwide application. They leave freedom for local education authorities to arrange teaching in the best way suited to local circumstances. This decentralization is based on the locally designed and implemented curricula, in which it is possible to cater for pupils' individual needs. The local curriculum design commits the local teaching staff to the development of education and also gives them wide pedagogic responsibility in teaching.

In Finnish schools, a great deal of attention is accorded to individual support for learning and well-being. The relevant guidelines are recorded in the core curriculum. School work and teaching arrangements are guided by a conception of learning that stresses the importance of the pupils' own activity and their interaction with their teacher and other pupils and with the learning environment. The principle of high-quality special education and early diagnosing guarantees that no one is left behind.

Schools are developed in multi-professional cooperation involving different levels of administration, among schools, and between schools and society at large. In Finland, school authorities cooperate actively with teacher, subject and school principal organizations. This enlists strong support for development

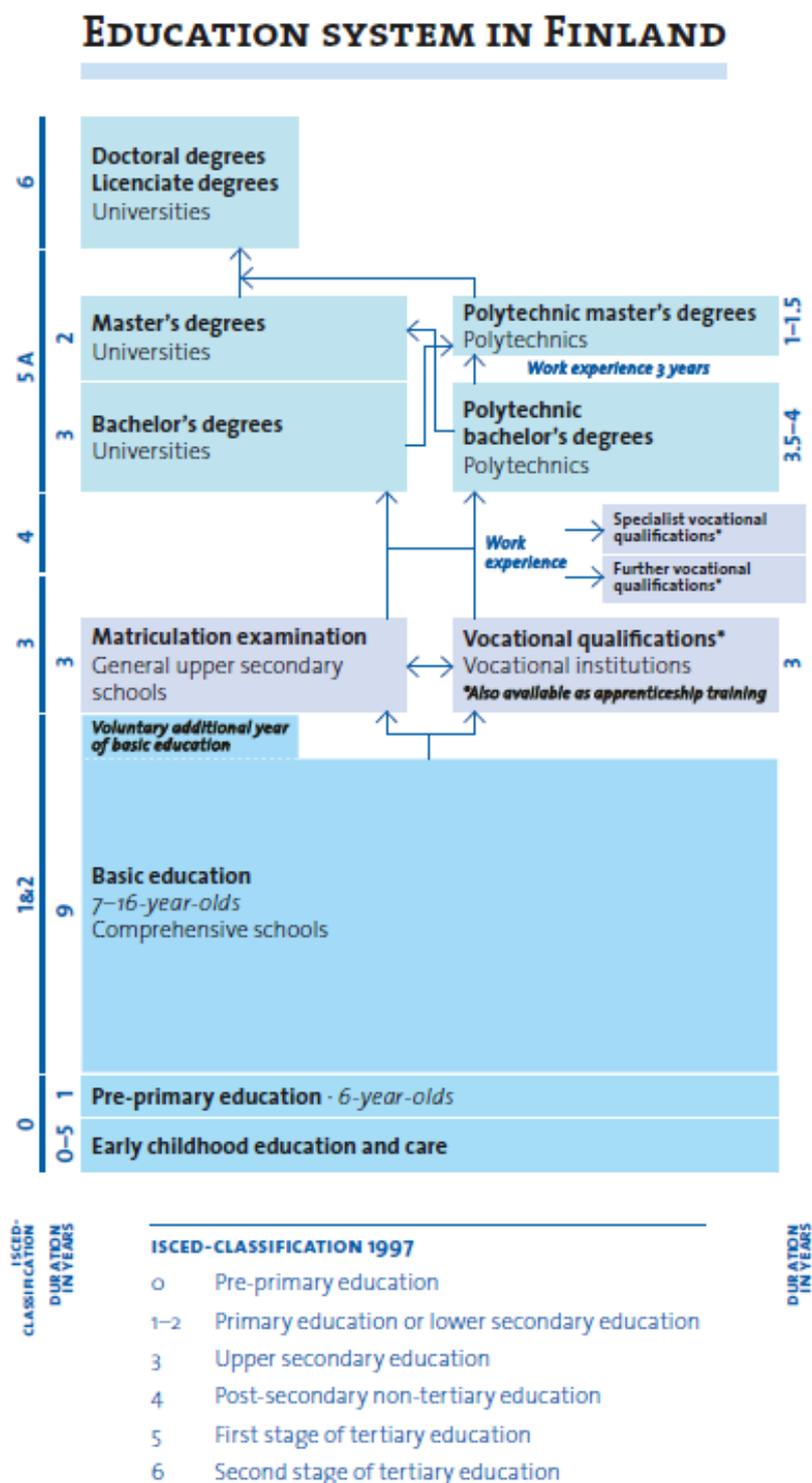
action.

Finland has a high-quality and efficient library system. For the most part, libraries provide their services free of charge. Finns are avid library users who figure at the top of international library use statistics. Solid, virtually 100% literacy underpins success in school curricula and in the various stages of education.

Finnish Ministry of Education and Culture 2013. Finland and PISA. Referred 14.6.2013

<http://www.minedu.fi/pisa/taustaa.html?lang=en>

Figure 1. The Finnish Educational System



The leading principle in the Finnish educational system is the open avenue from one educational level to another (as can be seen above in Figure 1).

Finnish Ministry of Education and Culture. Finnish Education in a Nutshell 2013. Referred 15.5.2013

http://www.minedu.fi/export/sites/default/OPM/Julkaisut/2013/liitteet/Finnish_education_in_a_nutshell.pdf?lang=en p.3

3.5 Pre-primary Education

Compulsory education starts in the year when a child becomes seven years of age. During the year before compulsory education begins, the child can participate in pre-primary education. Local authorities may provide pre-primary education in schools, day-care centers, and family day-care homes or in other appropriate places.

Participation in pre-primary education is voluntary but the municipality is obliged to provide pre-primary education.

Almost full enrolment (99.4% in 2009) is recorded in pre-primary education for children 6-7 years, about 70% of who also attend day care.

The aim of pre-primary education is that the child develops learning to learn skills and positive self-image, acquires basic skills, knowledge and capabilities from different areas of learning in accordance with their age and abilities.

Finnish National Board of Education 2012. Pre-primary Education. Referred 3.6.2013

http://www.oph.fi/english/education/pre-primary_education

3.6 Basic Education

Compulsory education starts in the year when a child has his/her seventh birthday, unless the child needs special needs education. The scope of the basic education syllabus is nine years, and nearly all children subject to compulsory education complete this by attending comprehensive school.

Basic education is free of charge for pupils. Textbooks and other materials, tools etc. are free of charge and pupils are offered a free daily meal. In addition, school health care and other welfare services are free to the pupils. Pupils in basic education living some distance from school (more than 5 km) or the journey is considered dangerous are entitled to free transport. If the daily travel time exceeds three hours, the pupil is entitled to free board and lodging in a dormitory.

The objective of basic education is to support pupils' growth towards humanity and ethically responsible membership of society and to provide them with the knowledge and skills needed in life. The education should promote learning and equality in society as well as acquiring knowledge and skills that the students need in studying and developing themselves later in life. Education also aims at guaranteeing sufficient equality in education throughout the country.

Finnish National Board of Education 2012. Basic Education. Referred 3.6.2013

http://www.oph.fi/english/education/basic_education

3.7 Upper Secondary Education

The upper secondary education has two educational lines, general upper secondary education leading to the matriculation examination, and vocational education, which leads to vocational qualifications, further vocational qualifications and special vocational qualifications. Apprenticeship education is available in the vocational education fields.

3.7.1 General Upper Secondary Education

The post-compulsory upper secondary level comprises general and vocational education. Both forms usually take three years and give eligibility for higher education. About 50 % of the comprehensive school-leavers continue on to general upper secondary education.

Upper secondary school offers general education for students of about 16-19 years of age. It continues the educational task of comprehensive school and provides students with the capabilities to continue to further studies.

The admission requirement for general upper secondary education is a school-leaving certificate from basic education. Students apply to general and vocational education through a joint application system. If the number of applicants exceeds the intake, the selection is based on students' school reports. The drop-out rate is low.

The general upper secondary school is based on courses with no specified year-classes. The scope of the syllabus is three years but the studies may be accomplished in two, three or four years. The students may proceed in their studies either as a group or individually.

General upper secondary education is primarily free of charge for students, but students have to pay for the materials.

The upper secondary school ends in a matriculation examination, which does not qualify for any occupation. Passing the matriculation examination entitles students to continue studies in universities, polytechnics or vocational institutions.

Matriculation examination is drawn up nationally, and there is a centralized body to check its individual tests against uniform criteria.

Finnish Ministry of Education and Culture 2013. General Upper Secondary Education. Referred 4.6.2013

<http://www.minedu.fi/OPM/Koulutus/lukiokoulutus/?lang=en>

3.7.2 Vocational Upper Secondary Education and Training

Students in vocational upper secondary education and training are mainly aged 16-25 years. The school-based education system means full-time studies for three years at a vocational institution. Education and training of compulsory studies is primarily organized in year classes. Else, students follow their individual study plans.

In the apprenticeship system, training is not based on age groups. The minimum age is 15 and there is no maximum age.

Applicants, who have completed the basic education syllabus or a corresponding earlier syllabus, may be admitted as students to education and training leading to an upper secondary vocational qualification. More precise student admission criteria are determined by the Ministry of Education. The criteria include previous study record in basic education or general upper secondary education (average grade of all subjects and grades emphasized in the relevant field), work experience and entrance or aptitude tests.

People who have accomplished the matriculation examination and general upper secondary education also have the opportunity to complete an upper secondary vocational qualification.

Students are free to choose which educational institution they apply to. If a person does not gain admittance to the school of his or her first choice, other possible schools are considered. Admission procedure will take place through the joint application system, which is today an electronic process maintained by the Finnish National Board of Education.

Vocational upper secondary education and training is based on the basic education syllabus. The scope of upper secondary level vocational qualifications taken after basic education is 3 years (120 credits, 180ECTS). The duration of studies is up to 40 credits (60ECTS) shorter for those who have completed the general upper secondary school syllabus, as some of their studies are accredited.

Even if the education and training mostly takes place in institutions, all qualifications include at least 20 credits (30ECTS), approximately six months of instruction at the workplace (on-the-job learning).

Vocational qualifications may also be completed as apprenticeship training, which also contain courses arranged in the institutions. Furthermore, upper secondary vocational qualifications may also be obtained through competence tests independent of how the vocational skills have been acquired. Like other vocational adult education and training, competence-based qualifications are governed by a separate act.

The objective of upper secondary vocational education and training is to provide students with the knowledge and skills needed to acquire vocational competence and to provide them with the potential for self-employment as well as further studies.

Upper secondary vocational education and training is primarily free of charge for students, but students have to pay for the materials.

After graduation from the vocational education institution students may choose to continue their studies in universities and in universities of applied sciences (polytechnics).

Finnish National Board of Education 2012. Vocational Upper Secondary Education and Training. Referred 4.6.2013

http://www.oph.fi/english/education/vocational_upper_secondary_education_and_training

3.8 Adult Education

Adult education policy is designed to provide a wide range of study opportunities for the adult population. Different institutions arrange a great variety of courses and programmes for adults at all levels of formal education, and the provision of liberal adult education is extensive.

With the exception of further and specialist vocational qualifications, adult education and training leading to qualifications is provided free of charge. The government also subsidizes other forms of education and training intended for adults in order to keep student fees at a reasonable level.

The aim of the adult education is to:

- Enhance the knowledge and skills of the adult population,
- increase educational opportunities for groups that are under-represented in adult learning, and;
- promote equality and active citizenship.

According to the Adult Education Committee the strategy of adult education and training should be built on four principles in the future:

1. Self-improvement will form part of the lives of a growing number of citizens, as work communities evolve towards learning organizations;
2. adult education and training will provide trained work force for all job categories and all vocations and professions;
3. adult education and training will develop teaching and learning methods and content, providing quality opportunities for people to develop themselves both in qualifying and liberal education; and;
4. adult education and training will maintain and strengthen participatory democracy, prevent exclusion and support active citizenship.

Adult education and training is provided by some 800 institutions in Finland; some of them are specialized adult education providers. Adult education is available within the official education system and in liberal adult education in adult education centers, folk high schools and summer universities. Liberal adult education does not lead to a qualification but the studies completed in liberal adult education may be taken into

account in preparatory training for competence-based qualification and when making an individual plan for completing competence-based qualifications.

Adult education also includes staff-development and other training provided or purchased by employers. Labor market training is financed by the labor administration and mainly intended for unemployed persons and those aged 20 or over who are threatened by unemployment.

Educational establishments arrange education and training intended for adults at all levels of the education system. It may lead to qualifications or relate to general self-development.

The objective of adult education in Finland is to support lifelong learning among the citizens, to develop society's coherence and equality and to enhance the knowledge and skills of the adult population. Efforts have been made to make the provision as flexible as possible in order to enable adults to study alongside work, among other.

Finnish adult education and training has traditionally been divided into two main areas:

- General adult education, and;
- vocational adult education and training.

Educational institutions and other corresponding education providers involved in adult education and training may be divided into the following groups:

General and Interest-oriented:

- General upper secondary schools for adults;
- Folk high schools;
- Adult education centres, study centres, and educational organisations;

- Physical education centres;
- Institutions providing basic art education, like music institutions;
- Summer universities.

Vocational:

- Institutions providing vocational education and training;
- Vocational adult education centres;
- Specialised vocational institutions;
- Continuing education centres of universities;
- Polytechnics;
- Home economics counselling organisations;
- Organizations for crafts and design.

Others:

- Commercial organizations

The challenges facing adult education in the future will be to respond to the constant ageing of population and to growing multiculturalism, to motivate adults to study, to improve the learning-to-learn skills among the poorly educated and trained, and especially to ensure equity and equality.

Finnish National Board of Education 2010. Adult Education. Referred 27.5.2013

http://www.oph.fi/english/education/adult_education

3.9 Higher Education

After completing general upper secondary education or vocational upper secondary education and training, students can apply for higher education. The Finnish higher education system has two parallel sectors: universities and polytechnics (or AMK institutions).

Universities concentrate on academic and scientific research and education whereas polytechnics are more oriented to working life and they base their functions on the high standards it demands. The education and training provided by the polytechnics respond to labor market needs. Their task is also to conduct R&D which supports instruction and promotes regional development.

Degree instruction at institutions of higher education is free of charge. In the university sector, undergraduate students (those on Bachelor's and Master's programmes) pay a small membership fee to the student union every year; in return, they get reduced price meals, health care services and other social benefits. Students are also responsible for acquiring the required books and materials

3.9.1 Eligibility for Higher Education

General eligibility for universities is provided by the matriculation examination or a vocational qualification with a scope of at least three years. The majority of new students have completed the matriculation examination. Eligibility for polytechnic studies is gained through upper secondary education – either the general education completed in an upper secondary school or an upper secondary vocational qualification.

3.9.2 Polytechnic Education (University of Applied Sciences)

The system of polytechnics is still fairly new. The first polytechnics started to operate on a trial basis in 1991–1992 and the first were made permanent in 1996. By 2000 all polytechnics were working on a permanent basis.

Polytechnics are multi-field regional institutions focusing on contacts with working life and on regional development.

There are 25 polytechnics in the Ministry of Education sector: six are run by local authorities, seven by municipal education consortia and 13 by private organizations. In addition, there is Åland University of Applied Sciences in the self-governing Province of Åland and a Police College subordinate to the Ministry of the Interior.

Finnish National Board of Education 2011. Referred 27.5.2013

http://www.oph.fi/english/education/higher_education

Polytechnic education is provided in the following fields:

- Humanities and Education
- Culture
- Social sciences, business and administration
- Natural resources and the environment
- Technology, communication and transport
- Natural sciences
- Social services, health and sport
- Tourism, catering and domestic services

The extent of polytechnic degree studies is generally 210–240 credits (ECTS), which means 3.5 - 4 years of full-time study. Polytechnic education is arranged as degree programmes. The entry requirement is a certificate from an upper secondary school or the matriculation certificate, a vocational qualification or corresponding foreign

studies. Each student has a personal study plan, which facilitates student guidance and the monitoring of progress in studies.

The requirement for Master's studies in polytechnics is a Bachelors' level polytechnic degree and at least three years of work experience. The polytechnic Master's, which is 60-90 credits and takes 1.5-2 years, is equivalent to a university Master's in the labor market.

The general requirement for admission to polytechnics is general or vocational upper secondary education and training. In other words, applicants eligible for polytechnic studies include those who have completed the matriculation examination, general upper secondary school or an upper secondary vocational qualification, or those with a corresponding international or foreign qualification.

Students apply to polytechnics through the joint national application system electronically. The polytechnics determine the principles of student admission independently. Student admission is based on previous study record and work experience and, in many cases, entrance examinations are also arranged.

The requirement for Master's programmes in polytechnics is a Polytechnic degree or other Bachelors' level degree and at least three years of work experience.

The system of higher degrees was put in place after a trial period in 2005 and the number of polytechnic Master's programmes is expected to grow in the coming years. (Website of the Finnish National Board of Education 2013)

Finnish National Board of Education 2010. Polytechnic Education. Referred 27.5.2013

http://www.oph.fi/english/education/higher_education/polytechnic

3.9.3 University Education

Finland has 16 universities. Under the new Universities Act, which was passed by Parliament in June 2009, Finnish universities are independent corporations under public law or foundations under private law (Foundations Act). The universities operate in their new form from 1 January 2010 onwards.

Finnish National Board of Education 2011. Higher Education. Referred 27.5.2013

http://www.oph.fi/english/education/higher_education

Under the Universities Act, universities must promote free research and scientific and artistic education, provide higher education based on research, and educate students to serve their country and humanity. In carrying out this mission, universities must interact with the surrounding society and strengthen the impact of research findings and artistic activities on society.

The traditional university sector consists of multi-faculty universities, universities of technology, business schools and art academies, all of which carry out research, provide under- and postgraduate education based on research and award degrees up to doctorates. In addition, university level education is provided at one military academy, the National Defense College, which is part of the Defense Forces.

The Finnish matriculation examination provides general eligibility for university education. The same eligibility is also provided by the International Baccalaureate (IB), European Baccalaureate (EB) and Reifeprüfung examinations. In addition, those with a Finnish polytechnic degree, post-secondary level vocational qualification or at least a three-year vocational qualification also have general eligibility for university education. Universities may also admit applicants, who are otherwise considered by the university to have the necessary knowledge and skills to complete the studies. Most new students have completed the matriculation examination.

People who received their schooling in another country may be admitted if their qualification gives eligibility for corresponding university studies in that country.

Universities select their students independently and they decide on the field-specific student intake according to the agreed target number of degrees. The numbers are determined in performance negotiations between the Ministry of Education and the universities. There is restricted entry, "numerus clausus", to all fields of study.

As there are many more applicants than there are places available, universities use different kinds of student admission criteria.

Student admission may be based on:

- The grades attained in the matriculation certificate (and in the general upper secondary school leaving certificate) together with the results of an entrance test, which is the most common procedure;
- the results of an entrance test only; or
- the grades attained in the matriculation certificate and in the upper secondary school leaving certificate only.

Finnish National Board of Education 2011 . Referred 27.5.2013

http://www.oph.fi/english/education/higher_education/university

In the two-cycle degree system students first complete the Bachelor's degree, after which they may go for the higher, Master's degree. As a rule, students are admitted to study for the higher degree. Universities also arrange separate Master's programmes with separate student selection, to which the entry requirement is a Bachelor's level degree or corresponding studies.

Studies are quantified as credits (ECTS). One year of full-time study corresponds to 60 credits. The extent of the Bachelor's level degree is 180 credits and takes three years. The Master's degree is 120 credits, which means two years of full-time study on top of the lower degree. In some fields, such as Medicine, the degrees are more extensive and take longer to complete.

The system of personal study plans will facilitate the planning of studies and the monitoring of progress in studies and support student guidance and counseling. University postgraduate education aims at a doctoral degree. In addition to the required studies, doctoral students prepare a dissertation, which they defend in public. The requirement for postgraduate studies is a Master's or corresponding degree.

Universities select their students independently and entrance examinations are an important part of the selection process.

Universities also offer fee-charging continuing education and Open University instruction, which do not lead to qualifications but can be included in an undergraduate or postgraduate degree.

Finnish Ministry of Education and Culture 2013. Studies and Degrees. Referred 6.6.2013

http://www.minedu.fi/OPM/Koulutus/yliopistokoulutus/opiskelu_ja_tutkinnot/?lang=en

4 VOCATIONAL EDUCATION AND TRAINING (VET)

4.1 Aims and Objectives

The aim of vocational education and training (VET) is to improve the skills of the work force, to respond to skills needs in the world of work and to support lifelong learning.

Finnish Ministry of Education and Culture 2013. Vocational Education and Training. Referred 21.5.2013

http://www.minedu.fi/OPM/Koulutus/ammattillinen_koulutus/?lang=en

The objective is to match the quantitative demand for and supply of labor as closely as possible. In addition, anticipation data can be used to develop qualifications frameworks, vocational skills requirements (National Core Curricula for Upper Secondary Vocational Qualifications and Requirements of Competence-based Qualifications) and instruction to better meet the skills needs of the future world of work.

Finnish National Board of Education. Vocational Education and Training in Finland 2010. Referred 21.5.2013

http://www.oph.fi/download/131431_vocational_education_and_training_in_finland.pdf

4.2 Upper Secondary VET Fields

Vocational education and training covers eight sectors: humanities and education; culture; natural sciences; natural resources and the environment; tourism, catering and domestic services; social services, health and sports; technology, communications and transport; social sciences, business and administration.

The largest fields are:

- Technology and Transport (c. 36%)
- Business and Administration (19%)
- Health and Social Services (17%)

The other fields are:

- Tourism, Catering and Home Economics (13%)
- Culture (7%)
- Natural Resources (6%)
- Leisure and Physical Education (2%)

There are 119 study programmes leading to 53 different vocational qualifications confirmed by the Ministry of Education and Culture. The number of further and specialist qualifications, which are taken as competence-based qualifications are 305.

Finnish Ministry of Education and Culture 2013. Vocational Education and Training. Referred 21.5.2013

http://www.minedu.fi/OPM/Koulutus/ammattillinen_koulutus/?lang=en

4.3 Development and Improvement of VET

Vocational education and training and vocational competence play a key role in promoting economic competitiveness and prosperity. The future labor market requires versatile vocational skills and solid competence, complete with continuous renewal of competencies. Development of vocational education and training is based on quantitative anticipation of long-term demand for labor and educational needs and qualitative anticipation of skills needs at a national level. Anticipation efforts produce information about the types of skills and skilled people required in the future world of work and the ways in which this demand can be met through education and training provision.

Vocational education and training is continuously improved by means of national development projects. In addition to educational administration officials, development efforts involve representatives of the world of work, VET providers, teachers and students. In recent years, key development areas have included meeting the changing skills needs of the world of work, co-operation between VET and the world of work, the quality of VET, recognition of prior learning, diversification of learning environments, enhancing efficient application procedures, reducing drop-out rates and increasing the attractiveness and appreciation of VET.

4.4 Structure of VET

The VET sector comprises upper secondary vocational education and training and further vocational training. It is targeted towards both young people ready to enter the labor market and adults already in gainful employment or outside the labor market. In addition to providing students with diverse knowledge, skills and competence required entering and functioning in the world of work, vocational education and training prepares students for lifelong learning and self-development. Education and training can be organized diversely both in institutional learning environments and in workplaces as well as using online learning environments.

Upper secondary vocational education and training covers upper secondary vocational qualifications and various pre-vocational programmes preparing students for upper secondary vocational studies.

Further vocational training includes further and specialist qualifications as well as further training not leading to any specific qualification organized according to the needs of individual students and employers.

Finnish National Board of Education. Vocational Education and Training in Finland 2010. Referred 27.5.2013

http://www.oph.fi/download/131431_vocational_education_and_training_in_finland.pdf

After basic education, 95.5% of school-leavers continue in additional voluntary basic education (2.5%), in upper secondary schools (54.5%) or in initial vocational education and training (38.5%).

A total of 146,000 students attend initial vocational training every year.

Of them, 4,500 attend access courses preparing for initial vocational training.

In further training provided in the Ministry of Education and Culture sector, the annual number of students is about 40,000.

Finnish Ministry of Education and Culture 2013. Vocational Education and Training in Finland. Referred 8.5.2013

http://www.minedu.fi/OPM/Koulutus/ammattillinen_koulutus/?lang=en

4.4.1 Upper Secondary VET

The completion of a vocational qualification takes 3 years and gives eligibility for higher education.

Instruction is given in multi-field or specialized vocational schools, but it may be organized in the form of apprenticeship training, combining learning at the workplace and theoretical studies at a vocational institution.

The vocational qualifications can also be taken as competence-based qualifications with the same vocational skill and knowledge requirements but independent of formal education and training.

The upper secondary vocational qualifications yield extensive basic vocational skills for various assignments in their field and, in addition, more specialized expertise in one sector of the qualification. This enables the qualification holders to find placements in working life, to perform various tasks in their field even in changing conditions, and to develop their vocational skills throughout their lives.

The vocational study programmes consist of:

- 120 credits (180ECTS) one year of full-time study equals 40 credits (60ECTS)
- 90 (135ECTS) credits (of vocational studies including relevant on-the-job training)

- 20 (30ECTS) credits of general studies (languages, mathematics, science, etc.), and;
- 10 (15ECTS) credits of free-choice studies.

At least 20 credits (30ECTS) of on-the-job training must be included in the vocational studies as well as a final project of at least 2credits (3ECTS).

The Ministry of Education decides on the structure of the vocational qualifications. The National Board of Education issues the national core curricula and qualifications guidelines, determining the objectives, core contents and assessment criteria of the studies. The core curricula are dealt with by tripartite training committees, which are expert bodies established under the Ministry of Education to advise in planning and developing vocational education and training.

Website of Finnish National Board of Education 2010. Vocational Education and Training System in Finland. Referred 15.5.2013

http://www.oph.fi/english/mobility/europass/finnish_education_system/vocational_education_and_training

4.5 Competence-based Qualifications

In Finland, vocational adult education and training is very much based on the system of competence-based qualifications. A specific benefit of this system is that it makes it possible to recognize an individual's vocational competencies regardless of whether they were acquired through work experience, studies or other activities.

Competence test candidates often participate in preparatory training for competence-based qualifications, which enables them to obtain the necessary vocational skills.

Those with sufficient vocational skills may complete a competence-based qualification or an individual qualification unit without participating in preparatory training.

It is not allowed to set preconditions concerning participation in training for those participating in competence tests. Nevertheless, the qualifications are mainly completed in connection with preparatory training.

Competence-based qualifications are completed by demonstrating the vocational skills determined in the Qualification Requirements by taking a competence test, which are primarily arranged in authentic production and service situations in the world of work. Each candidate completing a competence-based qualification progresses according to their own individualization plan. Qualifications are generally completed one unit at a time. A competence test can either be taken at a specific time or it may involve performing a series of tasks over a longer period of time.

Competence tests are arranged by Qualification Committees appointed by the Finnish National Board of Education, working in co-operation with competence test organizers. The Qualification Committees prepare contracts for arranging competence tests, are responsible for supervising competence tests, and award qualification certificates. Each Qualification Committee includes representatives of the field's employers, employees and teachers, as well as entrepreneurs as required. Preparatory training for competence-based qualifications is organized by VET providers, who decide on the contents and provision of preparatory training in accordance with the relevant Qualification Requirements.

4.6 Vocational Qualifications

Vocational education and training is governed by the Vocational Education Act (630/1998) and Decree (811/1998). To be entitled to award vocational qualifications, an education provider must have a license granted by the Ministry of Education, which determines the fields of study, total number of students, the provider's educational duties, etc.

Finnish Ministry of Education and culture 2013. Administration and Finance. Referred 5.6.2013

http://www.minedu.fi/OPM/Koulutus/ammattillinen_koulutus/hallinto_ohjaus_ja_rahkoulutus/?lang=en

The vocational qualifications framework and individual qualifications are developed in co-operation with the world of work and other key stakeholders in order to ensure that the qualifications support flexible and efficient transition into the labor market as well as occupational development and career change. In addition to the needs of the world of work, development of vocational education and training and qualifications takes into account the consolidation of lifelong learning skills as well as individuals' needs and possibilities to complete qualifications flexibly so as to suit their own circumstances.

A Qualification Requirements document is drawn up separately for each vocational qualification. The qualifications are based on competencies required in working life and consist of qualification units in keeping with the work and functional units of the world of work. The Qualification Requirements determine the units included in each qualification, any possible study programmes or competence areas made up of different units, the composition of the qualification, vocational skills required for each qualification unit, guidelines for assessment (targets and criteria of assessment) and methods of demonstrating vocational skills. The vocational skills requirements of qualifications and units are defined in terms of knowledge, skills and competences.

4.6.1 Upper Secondary Vocational Qualifications

In completing upper secondary vocational qualifications, students acquire and demonstrate the skills and knowledge required to achieve vocational proficiency and find employment in their chosen field while obtaining extensive basic skills needed

in different positions within the field and more specialized skills and professional competence in one sector of the study programme.

Upper secondary vocational qualifications completed as competence-based qualifications only cover vocational units and their scope is not defined in credits.

Vocational units are based on work and functional units found in the world of work and they include at least 20 credits (30ECTS) of on-the-job learning. In addition, all qualifications include vocational units covering vocational skills requirements relating to entrepreneurial competence and capabilities as well as those geared towards enhancing health and working capacity. Each qualification also includes a final project.

The qualification units to supplement vocational skills (core subject units) aim to provide students with the skills and knowledge that they will need at work, in further studies and as citizens, and they can be replaced with general upper secondary school units. Compulsory core subject units include languages, mathematics, physical education as well as arts and culture.

Free-choice units may be vocational units, core subject units, or general or interest-oriented units.

Students or competence-test candidates may also choose to include units from other vocational, further or specialist qualifications as part of their upper secondary vocational qualifications. In addition, they may improve their eligibility for further studies by taking general upper secondary school courses and the general upper secondary school matriculation examination, or by individually including more vocational units than required by the scope of the qualification.

Students may also choose to complete one or more qualification units at a time, as appropriate for their individual learning abilities, life circumstances or employment. In such cases, VET providers draw up a plan for students to complete the entire qualification, working in co-operation with their workplaces if possible. The primary ob-

jective of upper secondary vocational education and training is for each participant to complete an entire qualification.

The National Core Curricula governing different upper secondary vocational qualifications determine the key lifelong learning skills, which are included in the vocational skills requirements set for vocational units and core subjects. These key lifelong learning skills include learning and problem-solving, interaction and co-operation, occupational ethics, sustainable development, aesthetics, communication and media competence, as well as active citizenship and different cultures.

Programmes leading to upper secondary vocational qualifications are mainly provided by vocational institutions in accordance with curricula conforming to the relevant National Core Curricula, and it is possible to incorporate on-the-job learning into these units in a flexible and diversified manner. Upper secondary vocational qualifications can also be completed as competence-based qualifications. The vocational skills requirements are the same regardless of the method of completion.

4.6.2 Further and Specialist Qualifications

Further qualifications enable participants to demonstrate the vocational skills required of skilled workers in their respective fields. In 2010, there were 187 further qualifications in all.

Specialist qualifications allow participants to demonstrate command of the most demanding work assignments in the field. In 2010, there were 129 specialist qualifications in all.

The further and specialist qualifications consist of qualification units in keeping with the work and functional units of the world of work. Qualification units may be compulsory or optional. The Qualification Requirements determine any possible competence areas included in a qualification and the way in which the qualification is di-

vided into compulsory and optional units. Key lifelong learning skills are included in qualification modules as applicable.

Further and specialist qualifications or their constituent units have not been assigned any specific scopes. Further and specialist qualifications are always completed as competence-based learning.

Preparatory training may be organized in educational institutions or as apprenticeship training.

4.6.3 Eligibility for Further Studies

Holders of upper secondary vocational qualifications or further and specialist qualifications are eligible for further studies in polytechnics and universities. Natural study track for further studies for holders of upper secondary vocational qualifications includes polytechnics where just below a third of new entrants have completed such qualifications. At present, university entrants mainly come from general upper secondary schools but the vocational track is another possibility.

4.7 Pre-vocational Programmes

Versatile and flexible study tracks have been developed for the transition point between basic education and upper secondary level. They are aimed at supporting successful transitions from one level to the next as well as endorsing the continuity of students' lifelong study tracks.

Prior to starting education leading to an upper secondary vocational qualification, students may apply for the following pre-vocational programmes preparing for vocational studies, where necessary. These programmes are based on the Vocational Education and Training Act (630/1998) and the National Core Curricula adopted by the Finnish National Board of Education (FNBE).

4.7.1 Preparatory Instruction and Guidance for VET – VET Start

This education (20-40 credits) is directed at young people without a clear idea of their career choice or without sufficient capabilities to apply for or cope with vocational studies. Each student studies in accordance with his or her individual study plan.

4.7.2 Rehabilitative Instruction and Guidance for the Disabled

This programme (20-120 credits) allows students to develop their competencies, acquire capabilities required in vocational studies, working life and independent living and clarify their future plans. The aim is for students to achieve the best possible capabilities for independent living, education and training or work by the end of the programme.

The scope of preparatory instruction is defined individually in each student's own individual educational plan.

When the objective is to move on to upper secondary vocational studies, the scope of the programme is 20–40 credits, but for special reasons it may even be as much as 80 credits. The scope is 40–120 credits when completion of a vocational qualification is too demanding an objective and the aim of the programme is to prepare participants directly for work and independent living.

4.7.3 Preparatory Education for Immigrants

This education (20-40 credits, 30-60 ECTS) is intended for immigrants and people of immigrant origin who already have basic proficiency in the language of instruction. Its objective is to provide immigrants with capabilities to move on to programmes leading to upper secondary vocational qualifications by improving their basic proficiency in the language of instruction (Finnish or Swedish) and other skills required

for vocational studies. A further objective is to increase their knowledge of the Finnish learning and working culture. At the same time, students also learn about different occupations and vocational studies and receive support to retain their own native language and cultural identity. An individual study plan is drawn up for each student.

4.7.4 Course in Home Economics

Courses in home economics (20 credits) provide students with capabilities and practical skills required to manage their everyday lives and households. The course prepares students for further studies and it can be adapted according to a specific VET field and in a student-focused manner.

4.8 Applying for and Starting VET

Prospective students are free to apply for the vocational programme of their choice anywhere in the country. Those aiming for upper secondary vocational education and training generally apply through the joint application system. Applicants for further vocational training contact vocational institutions, Employment and Economic Development Offices or organizers of apprenticeship training directly.

VET applicants include young people and adults from different educational and working backgrounds, whose prior competencies must be recognized as part of vocational qualifications. It is also possible for general upper secondary school graduates to apply for vocational education and training and complete vocational qualifications.

Upper secondary VET students are required to have completed the basic education syllabus or an equivalent previous syllabus. In addition, VET providers may also admit people who are otherwise deemed to have sufficient capabilities to cope with the studies.

The Ministry of Education and Culture decides on student admissions criteria. These include the applicant's previous study record and work experience and the ranking of the programme on the applicant's list. VET providers decide on student admissions and may use for example entrance and aptitude tests or interviews to support their selection.

Provision of general and vocational upper secondary programmes is quantified so as to give all young people an opportunity to continue their studies after basic education. The attraction of upper secondary vocational education and training has grown throughout the 21st century. An increasing number of applicants primarily apply for and are admitted to upper secondary VET programmes. Approximately 95% of those completing basic education will immediately continue their studies in general upper secondary education, upper secondary VET or voluntary additional basic education.

Each year, approximately 50,000 students start upper secondary vocational education and training. The average age of entrants is 19 years. Some 10,000 candidates participate in preparatory training for competence-based upper secondary vocational qualifications annually.

Prospective students are free to apply for the further vocational training of their choice. The VET provider decides on student admissions criteria and on any possible entrance or aptitude tests. All applicants are subject to equal selection criteria. Where necessary, the criteria for student admissions may be determined by the Ministry of Education and Culture.

Self-motivated further vocational training is customer oriented, and provision is therefore based on demand.

Every year, approximately 75,000 students start further vocational studies. The majority of them are gainfully employed adults aged between the ages of 25 and 64.

The number of competence test participants has increased continuously.

4.9 Work-based Learning

Studies leading to upper secondary vocational qualifications and preparatory training for competence-based qualifications are carried out as direct contact, distance and multiform learning at vocational institutions, or in the form of apprenticeship training. Studies at vocational institutions take place in a variety of learning environments, such as workshops, laboratories and teaching restaurants. Work-based learning is central to meeting the vocational skills requirements.

4.9.1 On-the-job Learning

On upper secondary VET programmes, responsibility for organizing on-the-job learning places rests with the VET provider, who signs a written contract with the employer. Students are not usually considered to be in an employment relationship with the employer, which means that they retain their student status and social benefits. In addition, employers are not usually paid any compensation. On-the-job learning places may also be located abroad. Teachers and workplace instructors plan and implement each period of on-the-job learning and assess the learning agreed as being the objective of the period together with the student.

4.9.2 Apprenticeship Training

Apprenticeship training is a work-based form of providing vocational training. It is based on a written fixed-term employment contract (apprenticeship contract) between an employer and an apprentice, who must be at least 15 years old. Civil servants and entrepreneurs may also develop their competence through apprenticeship training.

Approximately 70–80 % of apprenticeship training takes place in the workplace, where the apprentice's training is entrusted to the responsible workplace instruc-

tor(s). Workplace training is supplemented with theoretical studies, which are mainly provided by vocational institutions. The provider of apprenticeship training confirms the apprenticeship contract between the apprentice and the employer.

Apprenticeship training accounts for about 17% of vocational education and training.

The employer pays the apprentice's wages according to the relevant collective agreement for the period of workplace training. For the period of theoretical studies, the student receives social benefits, such as a daily allowance and allowances for accommodation and travel expenses. The employer receives training compensation to cover the costs of training provided in the workplace.

4.10 Special Needs Education

Vocational special needs education and training is designed for students who require special support with their studies due to disability, illness, delayed development or for some other reason. Special needs students are attended to using various pedagogical means and through student welfare services during their studies. The objective is to support their studies and help them qualify for an occupation. Special needs education and training builds on each student's personal abilities combined with self-development and growth as a human being.

Instruction is planned and provided for both young people and adults, respecting each student's individual needs as much as possible. An individual educational plan is always drawn up for each special needs student. The objectives of qualification-oriented upper secondary VET programmes may also be adjusted as required.

Instruction for those in need of special support is primarily provided at regular vocational institutions in the same groups as other students or, where necessary, partially or completely in separate groups.

Vocational special education institutions and a few VET providers assigned a special educational mission are responsible for providing education and training for students with the most severe disabilities.

Students requiring practice in basic skills may participate in preparatory and rehabilitative instruction and guidance for the disabled before starting vocational studies.

Special needs students account for approximately 13% of upper secondary VET students. The number of special needs students has increased in recent years.

4.11 VET for Immigrants

The term “immigrants” is used to refer to refugees, migrants, repatriates and other foreign nationals and, in certain contexts, asylum seekers. Immigrant students may study at vocational institutions and complete vocational qualifications. They are subject to the same vocational skills requirements as other students.

Prior to starting upper secondary VET programmes, immigrants may participate in preparatory education for immigrants. They may also apply for other types of pre-vocational programmes, provided that they fulfill the admission criteria specified.

Adult immigrants falling within the scope of the Act on the Integration of Immigrants and Reception of Asylum Seekers are provided with integration training. The average duration of this training is 40 weeks, that is, one school year. The programmes generally comprise several courses, most of which focus on labor policy training. Integration training covers the Finnish or Swedish language, knowledge of society, everyday life skills, cultural knowledge, and careers and employment counseling. In many cases, the programme also includes practical training at a workplace. It also involves developing students’ learning skills and drawing up an individual study plan and employment plan during the training.

4.12 Individual Study Plan in Upper Secondary VET programmes

In programmes leading to upper secondary vocational qualifications, the VET provider co-operates with each student to draw up the student’s individual study plan,

which covers the student's individual choices, progress in studies, assessment of learning, identification and recognition of the student's competencies, on-the-job learning places and periods, and vocational skills demonstrations. Students are entitled to identification and recognition of their prior competencies that may also reduce the duration of their studies.

Students can also complete an upper secondary vocational qualification and the general upper secondary school matriculation examination in parallel. In such cases, students complete general upper secondary school studies to the extent that they are able to take tests in at least four subjects included in the matriculation examination.

They can also complete the entire general upper secondary school syllabus. It is possible to complete these two programmes within 3 to 4 years.

4.13 Guidance Counseling in Upper Secondary VET Programmes

For the effectiveness of individual study plans and support for individualization of qualifications to be guaranteed, upper secondary VET programmes include at least 1.5 credits of guidance counseling.

Guidance counseling consists of group counseling and personal counseling as well as other guidance necessary to complete a qualification and relating to learning.

Guidance counseling involves all teachers and other people responsible for guidance and counseling at the vocational institution. The guidance counselor has the main responsibility for practical organization of guidance counseling and for its overall planning and implementation.

In many vocational institutions, older students act as tutors who introduce the school's operational culture to new students in particular.

4.14 Individualization in Competence-based Qualifications

In competence-based qualifications, VET providers attend to individualization at the following three stages: application for competence based qualifications and for preparatory training, acquisition of the required vocational skills, and completion of qualifications. In addition, students are also advised on and referred for support services provided by other experts.

When an individual applies to complete a competence-based qualification, the competence test organizer is responsible for determining the applicant's prior competencies and other resources, suitable qualification and training needs, as well as any possible needs for guidance and support measures. Competencies are identified making diverse use of various methods appropriate for the field.

An individualization plan is prepared for each student to help them acquire the required vocational skills. The plan takes into account the individual's life circumstances, competencies, identified learning needs and opportunities for on-the-job learning.

4.15 Assessment of Competence

4.15.1 In Upper Secondary Vocational Qualifications

In programmes leading to upper secondary vocational qualifications, students' learning and its development as well as the competence acquired as a result of learning are assessed throughout the period of study. Assessment always involves students' individual self-assessment.

Students' learning and competence are always assessed in terms of the vocational skills requirements and assessment criteria determined within the relevant National Core Curriculum. Students' learning is assessed by giving verbal or written feedback

on the progress of their studies. Assessment of competence forms the basis for awarding grades for all qualification units on students' certificates, using the following three-step grading scale: Satisfactory 1, Good 2, and Excellent 3.

In vocational qualification units, competence is assessed by means of vocational skills demonstrations, which entail performing work assignments relevant to the vocational skills requirements in the most authentic settings possible. Where necessary, other assessment methods are used to supplement vocational skills demonstrations. Skills demonstrations are designed, implemented and assessed in co-operation with representatives of the world of work within the framework of the National Core Curricula. As far as possible, skills demonstrations are arranged as part of on-the-job learning periods, either in workplaces or at vocational institutions.

Once students have completed all units included in a qualification to an acceptable standard, they receive a qualification certificate, which consists of a vocational upper secondary certificate and a certificate of skills demonstrations. The certificate of skills demonstrations includes information on the vocational skills demonstrations taken and the grades awarded for these, while the vocational upper secondary certificate covers the qualification units and their grades.

4.15.2 In Competence-based Qualifications

In competence-based qualifications, assessment is always based on the vocational skills requirements and assessment criteria determined within the relevant Qualification Requirements. Also, competence test performance is evaluated in relation to these. Assessment makes diverse use of different and primarily qualitative methods, such as observation, interviews, surveys, as well as group and self-assessment. Candidates' competence is assessed in competence tests.

Vocational skills are assessed by representatives of employers, employees and the educational sector. In addition, each candidate also assesses their own competence. In fields characterized by high rates of self-employment, the entrepreneurial sector is

also taken into account when selecting assessors. After completion of a qualification unit, there will be an assessment discussion attended by the candidate and the assessors representing employers, employees and the educational sector. The assessors submit their proposal to the relevant Qualification Committee for either failing the module or awarding a specific grade (Satisfactory 1, Good 2, or Excellent 3) in upper secondary vocational qualifications and for either failing or passing the performance in further and specialist qualifications. Qualification Committees make the decisions regarding final assessment.

The qualification certificate may be awarded once all units required to obtain the qualification have been completed to an acceptable standard.

5 FINANCING IN VET

5.1 Study Costs and Social Benefits for Students

Instruction and completion of qualifications is free of charge for students studying for upper secondary vocational qualifications. Students are also offered one free meal per day and have the opportunity to receive school transport subsidy. However, students are expected to cover some of their own study expenses, such as textbooks, tools, equipment and materials for personal use that will remain their property at the end of their period of study.

In cases where upper secondary vocational qualifications are completed as competence-based qualifications, preparatory training is provided free of charge, but stu-

dents are not entitled to free meals. Competence test candidates are charged a test fee when they register for a test.

Students may be charged reasonable fees in preparatory training for further and specialist qualifications and in other types of self-motivated further vocational training. Also, candidates taking competence tests as part of further and specialist qualifications without participating in preparatory training may be charged reasonable fees to cover the costs arising from organizing the tests. In addition, candidates need to pay a test fee when they register to take a competence test.

Student financial aid is available for upper secondary vocational education and training and for further vocational training. The conditions for receiving student financial aid include full-time study, progress made in studies and the need for financial support. The aid is means-tested and determined according to the student's age, form of accommodation and income. Mature students with extensive career records may be granted adult education subsidy. Further conditions include that students take unpaid study leave for a minimum of two months and do not receive any other financial aid for studies. In order for the student to be eligible to receive aid, studies must take place at an educational institution located in Finland and supervised by public authorities.

Students in apprenticeship training receive pay according to the relevant collective agreement, theoretical education free of charge as well as travel and accommodation allowances. They also receive a daily allowance for the period of theoretical studies if their pay does not cover that period. Apprentices with families are also entitled to family allowance.

Students are entitled to receive social and health care services free of charge, provided in co-operation with municipal social and health administrations. Many educational institutions have a multidisciplinary student welfare team to look after students' welfare. In education and training intended for young people, educational institutions are obliged to maintain contact with their homes.

5.2 Financing of Vocational Education and Training

Vocational education and training is mostly financed from the budget of the Ministry of Education and Culture. Vocational education and training funded by the Ministry of Education and Culture forms part of the system of central government transfers to local governments. The Ministry of Employment and the Economy also finances labor policy training, which may be upper secondary vocational education and training, further training or higher education. The labor administration purchases labor policy training from education providers in the administrative sector of the Ministry of Education and Culture and, to some extent, from other education providers as well.

Financing of vocational education and training is based on calculatory unit prices and granted directly to authorized VET providers. The annual funding allocated to a VET provider is based on the number of students or other financial performance indicator (such as student year) and the calculated unit price payable per such indicator. The VET provider can spend the funding granted to it for planning and implementation of its provision as it sees fit. In a system based on calculated unit prices, use of funding granted is not tied to the award and calculation criteria.

The VET funding model steers the provision of vocational education and training to meet the needs of different fields in the world of work as unit prices are determined on the basis of the world of work and training costs within different fields. The model takes into consideration educational needs within fields where the costs of education are higher than the average as well as paying special attention to fields of particular importance with regard to national economy.

5.2.1 Financing of Vocational Upper Secondary Education and Training

Vocational upper secondary education and training is co-financed by the State and municipalities. The statutory government transfer is calculated to cover approximately 42 % of operating costs, and some 58 % of funding comes from municipalities.

The Government confirms the average unit price for vocational upper secondary education and training annually, and field-specific unit prices are calculated based on this average. When confirming the average unit price, the Government takes into consideration the total costs of vocational upper secondary education and training nationally, change in the level of costs as well as changes in the scope and quality of operations due to legislation and other actions by state authorities. The financing a VET provider receives is determined based on the number of students and the allotted unit price per student. Unit prices are banded based on factors substantially affecting operating costs. In vocational upper secondary education and training, the unit price of a VET provider is determined based on factors such as the field of education provided, whether the education and training is particularly expensive, the number of students receiving special needs education and the number of students receiving housing from the education institution. The unit price for vocational upper secondary education arranged as apprenticeship training is roughly 63 % of the average unit price for vocational upper secondary education. In special needs education, the unit price for apprenticeship training is raised.

Performance-based criteria was introduced as a basis for determining calculatory banding of operating costs in vocational upper secondary education and training in the beginning of 2006. Performance-based financing system comprises funding based on operational outcomes determined on the basis of quantitative indicators, and funding based on quality assessment. Performance-based funding is designed to motivate VET providers to continuously work on developing and improving their operational outcomes and the quality of education and training provided.

Performance-based funding constitutes 3 % of the overall funding for vocational upper secondary education and training. The amount of performance-based funding a VET provider receives is determined based on indicators used to measure the employment situation of qualification holders, placement in further studies in higher education, drop-out rate, proportion of students passing their qualifications, formal teaching qualifications of the staff and resources allocated towards staff development.

5.2.2 Financing of Vocational Further Education and Training

Vocational further education and training is mainly financed by the state. Part of the education and training is funded by students and employer who may be required to pay certain fees. Statutory government transfers constitute approximately 85 % of funding in self-motivated education and training and approximately 47 % of in-service training. The municipalities are not under any obligation to contribute to the financing of vocation further education.

Financing of school-based vocational further training is determined based on student-years and unit prices. Student-year specific unit prices are based on the average unit price for vocational upper secondary education and training. Banding of unit prices is based on price category rates representative of the level of costs within different fields of education and training. The Ministry of Education and Culture annually confirms the quantity of student-years for each institution providing vocational further education and training based on the operations data from previous years. This constitutes the basis for calculating the amount of statutory government transfer, as unit prices are multiplied by the confirmed number of student-years.

In vocational further education and training arranged as apprenticeship training, unit prices are determined in the State Budget for education and training leading to qualification as well as for other vocational further education. These prices are multiplied by the number of confirmed apprenticeship agreements for the following year.

Performance-based funding was introduced in vocational further education and training in 2010. It constitutes 3 % of the overall statutory government transfers in vocational further educational and training. Completing all modules of a qualification programme constitutes a prerequisite for performance-based funding.

6 ADMINISTRATION

6.1 Administration of VET

Vocational education and training falls within the administrative sector of the Ministry of Education and Culture. Provisions on vocational education and training are defined in Acts of Parliament. Key legislation consists of the Vocational Education and Training Act (630/1998), the Vocational Adult Education Act (631/1998) and the Act on the Financing of the Provision of Education and Culture (1705/2009).

The national objectives of upper secondary vocational education and training, the qualifications framework and the core subjects are defined by the Government, while the Ministry of Education and Culture decides on the specific details and scopes of qualifications.

The Ministry of Education and Culture is responsible for specifying education policies and for regulating, steering and financing vocational education and training. Its work is guided by policies determined in the Government Programme, the Government Strategy Document and the Development Plan for Education and Research adopted by the Government.

The Ministry of Education and Culture grants authorizations for provision of both upper secondary vocational education and training and further vocational training. Authorizations to provide upper secondary VET cover provisions on VET fields, qualifications, student volumes, language of instruction, locations, special educational missions and any other issues that may be required. Authorizations to provide further vocational training, in turn, include the necessary provisions on VET fields, language of instruction, and the numbers of student-years in preparatory training for competence-based qualifications and in other further vocational training as well as the number of apprenticeship contracts concerning further vocational training. VET providers may also be assigned missions to develop and serve the world of work.

The Finnish National Board of Education (FNBE) is an expert and development body which decides on the National Core Curricula and the Requirements of Competence-based Qualifications, determining the vocational skills requirements of qualifications and the methods of demonstrating competence. In addition, the Finnish National Board of Education co-ordinates national projects to develop education, training and teaching, monitors learning outcomes and anticipates changes in educational and skills needs.

VET providers decide on the provision of vocational education and training in their region within the limits of their authorization from the Ministry. They decide independently on issues such as the kind of education and training provided and the method of completion of these studies as well as making decision regarding organization of operations and the educational institutions maintained. When planning their operations, VET providers take into consideration the educational needs of the world of work and the population of the region. VET providers prepare their vocational education curricula for the fields where education and training is provided based on the National Core Curricula.

The National Education and Training Committees are tripartite advisory bodies appointed by the Ministry of Education and Culture to ensure effective contacts between the VET sector and the world of work at a national level. Committees participate in development and anticipation of vocational education and training as advisory bodies.

VET providers maintain one or more bodies for vocational skills demonstrations and some also have field-specific local advisory councils, which include representatives of the world of work. Close contacts with the local world of work constitute the cornerstone for high-quality instruction.

A key role in adult education and training is played by the Qualification Committees, which are bodies appointed by the Finnish National Board of Education to implement competence-based qualifications. The Qualification Committees are responsible for organizing and supervising competence tests, monitoring the effectiveness of the competence-based qualifications system in their respective VET fields and,

where necessary, making initiatives concerning its development. The Qualification Committees prepare contracts for arranging competence tests for different qualifications with the providers of relevant training or other bodies capable of arranging competence tests for the qualifications concerned in keeping with the principles of the competence-based qualifications system. They ensure the consistent quality of qualifications and award qualification certificates.

There are no specific educational inspection procedures in Finland. However, the Ministry of Education and Culture and the Finnish National Board of Education or an external audit firm, as decided by the Ministry, perform inspections to verify the validity of the criteria for allocation of funds.

In Finland, regional administration plays an important role in promoting the relevance and demand-driven approach of vocational adult education and training. Regional authorities implement Government-funded continuing training for teaching staff in their respective regions. In addition, they allocate grants for the purposes of vocational institutions' mission to develop and serve the world of work. They also manage regional ESF funding, which is allocated to purposes such as development of work-based learning.

6.2 VET Providers

Vocational education and training may be provided by local authorities, joint municipal authorities, registered associations or foundations, or state enterprises authorized by the Ministry of Education and Culture to provide education and training. The Government maintains the Sámi Education Institute and the Maritime Safety Training Centre.

The VET provider network is comprehensive and diversified in regional terms. The provider network comprises multidisciplinary vocational institutions, often created on a sub-regional or regional basis. They are responsible for providing both upper secondary vocational education and training and further vocational training on the basis of working life needs in their respective areas. The key factors involved in responding to vocational competence needs include sound field-specific expertise, close contacts with the world of work and business as well as taking individual educational needs into account when planning and implementing education and training. Swedish-language vocational education and training is provided either by Swedish-language or bilingual institutions.

The number of VET providers has decreased notably in the last ten years as providers maintaining vocational institutions have been merged to form larger entities. The majority of VET providers offer both upper secondary VET and further vocational training. There are close to 150 VET providers in total.

Almost all VET providers maintain several institutions and units, while many also offer apprenticeship training. Vocational institutions have diverse teaching facilities and up-to-date technology for practical teaching purposes. Teaching staff are well-educated.

In each educational institution, there is a principal (rector) responsible for its operations. Each vocational institution also has a student body exercising the students' right to be heard. The student body communicates students' views to the VET provider's decision-making bodies. Students are also given opportunities to participate

in and influence development of education and training and to engage in leisure interests in the school environment. National student organizations (the Finnish Students Alliance, OSKU, and the Central Organization for Finnish Vocational Students, SAKKI) support student bodies' operations and also carry out lobbying activities.

Finnish National Board of Education. Vocational Education and Training in Finland 2010. Referred 17.6.2013

http://www.oph.fi/download/131431_vocational_education_and_training_in_finland.pdf

6.3 Qualifications of Teachers

Depending on the institution and subject, vocational and polytechnic teachers are required to have either:

- An appropriate higher (or postgraduate) academic degree,
- an appropriate polytechnic degree,
- the highest possible qualification in their own vocational field, at least three years of work experience in the field, and completed pedagogical studies.

Finnish National Board of Education. Education in Finland 2008. Referred 27.5.2013

http://www.oph.fi/download/124278_education_in_finland.pdf

In addition to these, the qualifications requirements for special needs teachers and guidance counselors also include studies specializing in these areas.

Training for vocational teachers, special needs teachers and guidance counselors is provided by vocational teacher education colleges operating in conjunction with polytechnics. There is a volume of applicants for vocational teacher education, and roughly 35–40 % of applicants are admitted every year. Some VET teachers have

obtained their teaching competence as part of a university degree by completing a teacher training programme.

Approximately 72 % of VET teachers are formally qualified for their positions. The primary reason for the lack of formal teaching qualifications is the absence of pedagogical studies required of teachers. The highest proportions of those formally qualified for their positions can be found among principals and directors, full-time teachers, special needs teachers and guidance counselors

More than half of VET teachers work in the field of Technology, Communications and Transport and the subfield of Health Care and Social Services. Women account for just over half (54 %) of teachers.

Alongside teachers, there are workplace instructors who supervise work-based learning, participating both in supervision and guidance of students and in assessment of their vocational skills.

6.4 Quality Management

Quality assurance in vocational education and training is a tool for VET providers to assure and improve the quality of provision. The national quality management system in vocational education and training comprises national steering, quality management of VET providers and external evaluation of VET. International quality assurance policies, such as the Recommendation of the European Parliament and of the Council on the establishment of a European Quality Assurance Reference Framework for Vocational Education and Training (EQARF), have been taken into account in developing national and provider-level quality management.

The extensive mission of vocational education and training and the objective of meeting the increasing and changing needs of individuals and the world of work set further requirements on the quality of VET provision. Continuous improvement of

the quality of vocational education and training is a key priority both in Finland and within the European Union as a whole.

In addition to legislation, central instruments for steering quality management in VET include the Development Plan for Education and Research adopted by the Government, the State Budget, authorizations to provide vocational education and training, the qualifications framework and the National Core Curricula for Upper Secondary Vocational Education and Training and the Requirements of Competence-based Qualifications criteria for funding operations and performance-based funding, as well as qualifications requirements for teaching staff. In addition to these, guidance from educational administration carried out in the form of development and information services plays an important role in this respect, as do vocational skills demonstrations and competence tests. Continuous improvement of teachers' competence and active contacts between teaching staff and the world of work also form a key part of quality management.

VET providers are obligated by law to carry out self-assessment of their own operations. They are also required to make the key results of these assessments public. The quality of vocational education and training is also assessed by means of external evaluations, in which VET providers are obligated to participate. The Finnish Education Evaluation Council has been established for the purposes of external evaluation of education. The Finnish National Board of Education maintains a national monitoring system of learning outcomes based on vocational skills demonstrations for the purposes of national follow-up assessments on learning outcomes. Decisions on other types of external evaluation of education and training are made by the Ministry of Education and Culture and carried out by the Finnish Education Evaluation Council or some other auditor appointed by the Ministry. In addition to these, another widely used method is based on peer assessments, which are carried out both nationally and internationally.

VET providers are encouraged to manage and improve the quality of their operations through the national Quality Management Recommendations for Vocational Education and Training and the Quality Awards for VET granted annually as part of per-

formance-based funding. The assessment criteria used for Quality Awards are based on the EFQM Excellence Model (the European Quality Award model).

6.5 Internationalization

Vocational education and training also aims to provide students with the knowledge, skills and competences required in an increasingly internationalized labor market and multicultural society. The competence requirements of vocational qualifications include language proficiency as well as other international capabilities.

The starting point for internationalization of vocational education and training lies in developing education and training to enhance the competitiveness of the Finnish world of work and education and training in an international environment. Through international cooperation, the quality and attractiveness of VET can be improved and mobility among vocational students and qualification-holders can be promoted.

Recognition of competencies and qualifications together with related exchanges of information form an integral part of this development. For the purposes of comparing and recognizing qualifications and competencies, Finland has developed a National Qualifications Framework based on the European Qualifications Framework (EQF). Credit transfers in vocational education and training have been actively developed in several projects on the basis of the European Credit Transfer System for Vocational Education and Training (ECVET).

VET providers are actively involved in international co-operation and development. Their foreign partners mainly come from within the European Union but co-operation is also carried out with countries outside Europe.

Every year, some 5,300 Finnish vocational students go abroad, accounting for about 11 % of the total number of students. Finland receives approximately 2,500 vocational students each year. Teachers' professional development placements are also carried out abroad in order to develop their pedagogical and vocational expertise.

Finnish National Board of Education. Vocational Education and Training in Finland 2010. Referred 28.5.2013

http://www.oph.fi/download/131431_vocational_education_and_training_in_finland.pdf

6.6 Legislative Framework in Vocational Upper Secondary Education and Training

The current Finnish educational legislation came into force on 1 January 1999. Vocational upper secondary education and training is governed by The Vocational Education Act (*Laki ammatillisesta koulutuksesta* 630/1998) and the Decree on Vocational Education (*Asetus ammatillisesta koulutuksesta* 811/1998). The Act and Decree concern initial vocational education for both young and adult students, the qualifications in the current qualifications structure, as well as apprenticeship training.

Apprenticeship training is also governed by the acts and decrees issued on vocational adult education and the financing of educational and cultural funding, as well as by the provisions of other statutes on working hours, annual leave, safety at work and labor protection with regard to employees.

6.7 Curriculum of Vocational Upper Secondary Education and Training

The Government decides on the general goals of vocational education and training, the structure of qualifications, and the core subjects. The Ministry of Education decides on the studies and their scope.

The curriculum system of vocational education and training consists of the national core curricula, each education provider's locally approved curricula and the students' personal study plans.

The Finnish National Board of Education decides on the national core curriculum for each vocational qualification, determining the composition of studies and objectives,

core contents and assessment criteria for study modules. It also includes provisions on student assessment, student counseling, on-the-job learning, special education and training, educational arrangements for immigrants and apprenticeship training. The content of local curricula is defined in the national core curriculum as well.

The national core curricula are drawn up by the Finnish National Board of Education in co-operation with employers' organizations, trade unions, the Trade Union of Education and student unions. They are dealt with by National Education and Training Committees, which are tripartite bodies established for each occupational field by the Ministry of Education for a term of three years at a time to plan and develop vocational education and training. Local tripartite bodies as well as other representatives of working life take part in the curriculum work as advisers and consultants. Local curricula are approved by the boards of education providers.

The national core curricula constitute a legal norm for educational institutions. Their purpose is to reflect the objectives of education policy, to determine the requirements for nationally uniform vocational competence and the capabilities for learning to learn and functioning as a citizen. In addition, the core curricula must also function as the basis for the evaluation of national learning outcomes.

The national core curricula for upper secondary vocational qualifications and the requirements for competence-based qualifications are common to education and training for young and adult students. The scope of the qualifications is 120 credits (180ECTS), 40 credits (60ECTS) per year and 1 (1,5 ECTS) credit is equivalent to 40 hours of study.

Finnish National Board of Education 2010. Vocational Education and Training System in Finland. Referred 7.5.2013

http://www.oph.fi/english/mobility/europass/finnish_education_system/vocational_education_and_training

6.7.1 The Curriculum Includes

Vocational studies and on-the-job learning which vary according to the qualification, 90 credits (135 ECTS); min. 20 credits on-the job (30ECTS).

Core subjects common to all qualifications, 20 credits (30ECTS), out of which 16 are compulsory and 4 are optional. These are studies in;

- the native language
- the other national language and a foreign language
- mathematics
- physics and chemistry
- social, business and labor-market subjects
- health education; physical education
- arts and culture; environmental studies
- ICT; ethics, other cultures
- psychology and entrepreneurship
- free-choice studies, which vary (10 credits, 15 ECTS)

These studies include at least 1.5 credits (2, 25 ECTS) of student counseling and a final project with a minimum of 2 credits (3ECTS).

Students may freely choose free-choice studies from those on offer either at their own institution or at some other upper secondary level institution (general or vocational) and include them in their qualification according to their own interests or vocational orientation; these may also include appropriate work experience.

Free-choice studies can be either vocationally complementary or they may increase the number of courses in core subjects to such an extent that they may even enable students to complete general upper secondary school and/or the matriculation examination at the same time as the vocational qualification. They may also focus on personal interests.

The education includes a period of on-the-job learning, during which students familiarize themselves in practical assignments required in the occupation and achieve the core objectives of the occupation as laid down in the curriculum. All 120-credit (180 ECTS) upper secondary vocational qualifications include a period of on-the-job learning with a minimum scope of 20 credits (30ECTS). One of the aims of on-the-job training is to enhance young people's employment opportunities.

Vocational skills demonstrations were introduced as a way of assessment as of August 2006 and they will mostly take place during the periods of on-the-job learning.

The final project may be a set of work assignments, a written paper, report, project assignment, product or equivalent. The final project is focused so as to serve working life needs, provide an opportunity to participate in working life and facilitate transition into the labor market. It may be performed individually, in a group or as a more extensive project. The minimum scope of the project is two credits.

Finnish National Board of Education 2011. Referred 27.5.2013

http://www.oph.fi/english/education/vocational_upper_secondary_education_and_training/curriculum

6.8 Certification in VET

Certification in vocational education and training and the content of the certificate are regulated by the National Board of Education and governed by the Vocational Education Act (*Laki ammatillisesta koulutuksesta* 630/1998) and the Vocational Adult Education Act (*Laki ammatillisesta aikuiskoulutuksesta* 631/1998). Passed performances are graded on the scale excellent (3), good (2) and satisfactory (1).

6.8.1 Certification in Institutional VET

Students are awarded a qualification certificate upon the completion of all the studies required for the qualification.

A student resigning without completing the vocational qualification is given a certificate of resignation which lists the completed studies and their grades. On request, students may also be granted a certificate of completed studies while still continuing the programme. The certificates are awarded by the education provider / vocational institution.

6.8.2 Certification in Competence-based Qualification System

Students are awarded the qualification certificate upon the completion of all the required qualification modules. On request, students may also be granted a certificate for each passed module.

The certificates of competence-based qualifications are awarded by representatives of the Qualification Committee and the body that arranges the competence tests.

6.8.3 Certification in Apprenticeship Training System

Students are awarded two certificates:

1. Certificate of participation in training and;
2. Qualification Certificate

The certificate of participation in training is given by the education provider. The assessments of the employer and the institution organizing the theoretical education are included in the certificate. The qualification certificate is given by the provider of education or, if the certification is based on the competence-based system, by the Qualification Committee.

Finnish National Board of Education 2010. Vocational Education and Training System in Finland. Referred 15.5.2013

http://www.oph.fi/english/mobility/europass/finnish_education_system/vocational_education_and_training

6.9 National Qualification Requirements in VET

National qualification requirements are drawn up by the Finnish National Board of Education in co-operation with employers' organizations, trade unions, the Trade Union of Education and student unions. They are dealt with by National Education and Training Committees, which are tripartite bodies established for each occupational

field by the Ministry of Education for a term of three years at a time to plan and develop vocational education and training. Local tripartite bodies as well as other representatives of working life take part in the curriculum work as advisers and consultants. Local curricula are approved by the boards of education providers.

National qualification requirements constitute a legal norm for educational institutions. Their purpose is to reflect the objectives of education policy, to determine the requirements for nationally uniform vocational competence and the capabilities for learning to learn and functioning as a citizen. In addition, qualification requirements must also function as the basis for the evaluation of national learning outcomes.

Qualification requirements for upper secondary vocational qualifications and requirements for competence-based qualifications are common to education and training for young and adult students. The scope of the qualifications is 120 credits (40 credits per year and 1 credit is equivalent to 40 hours of study).

The Finnish National Board of Education has revised all national requirements of vocational qualifications which have been taken into use in August 2010. The revision includes the structure of the requirements, the organization of studies, the requirements of skills as well as the targets and criteria of assessment. The revised requirements stress, for example, that students should acquire skills which can be utilized in different fields and transferred from profession to profession; skills should serve labor market needs but also promote lifelong learning; and study modules should be flexible and there should be a possibility for various combinations. The revision takes immigrants and students with disabilities into account, and is relevant for adults as it revises also competence-based qualifications

Finnish National Board of Education 2013. National Requirements for Vocational Education and Training. Referred 7.5.2013

http://www.oph.fi/english/sources_of_information/core_curricula_and_qualification_requirements/vocational_education_and_training

6.10 Assessment in VET

In initial vocational education and training (VET), student assessment is based on set criteria. Students' learning and knowledge are compared to vocational skills requirements nationally set for the qualification in question or to the aims set for general core subjects and criteria based on them.

The purpose of assessment is to give students feedback on what they know and what they still need to learn. In assessment the teacher and the on-the-job instructor must use activating methods which motivate students to achieve set aims or fulfill the vocational skills requirements and develop their self-assessment skills.

Assessment is ongoing; the student is constantly given oral or written feedback on progress. The feedback supports and guides students to achieve good results by highlighting their strengths. Assessment also shows the changes needed in teaching and guidance, which are recorded in the student's individual learning plan.

Students are given final grades, which are recorded in the diploma. Students are given opportunities to demonstrate their knowledge and skills on a wide scale and also to assess themselves. The vocational skills required for the qualification are tested in vocational skills demonstrations and in other, supplementary assessment.

The key competencies are assessed according to national assessment criteria, which are adapted separately to the specific needs of each vocational qualification. The criteria are summative, that is, expressed as learning outcome at the end of training. The training provider and teachers must use these criteria, which also help to set intermediary goals for learning and teaching and give feedback during studies.

6.11 Attractiveness and Matching of VET

In Finland vocational education and training has grown in popularity and the applicant numbers have been steadily increasing in recent years. However, there are differences in popularity between regions, fields of education and providers.

Measures have been taken to enhance the attractiveness of vocational education and training. These measures concern dissemination of information and the extent and relevance of the qualifications to working life demands, and on-the-job learning and vocational skills demonstrations. Similarly long-term development of national skills competitions and their visibility have increased the popularity of VET.

Information about and marketing of vocational education and training has stepped up nationally, regionally and locally. In addition to web sites maintained by authorities, the Ministry of Education, training providers, student organizations and labor market parties publish various magazines describing vocational education and training and different career paths in it. In the field of technology and transport, education providers and business and industry have had information campaigns designed to increase the attractiveness of the field. At the local and regional levels, training providers have targeted direct information and marketing measures to young people and those having the most influence on their career choices (parents and careers counselors).

One important information channel is the electronic joint application system in upper secondary education and training, which was adopted in 2008. It has improved information about training provision, admission principles and application procedures, as well as placement and careers counseling. The Ministry of Education is launching the second phase of the project, in which centralized collection of data on education and training supply and the e-application system will be extended to other forms of education, e.g. adults' vocational education and training.

European Commission. Key Competencies for Lifelong Learning in Finland 2010.

Ministry of Education Finland. Referred 23.5.2013

http://ec.europa.eu/education/lifelong-learning-policy/doc/natreport09/finland_en.pdf

7 VET AND CULTURE NETWORK

7.1 VET Culture

Vocational Education and Training Culture is a voluntary network of senior and junior researchers and students, practicing cross-cultural, independent and critical research on transformations in vocational education and in relations between work, education and politics. The aim of the network is to support members in their different academic and institutional environments through virtual communication, annual meetings, collaborative teaching, supervision and publishing.

Institute for Educational Research 2013. VET Culture. Referred 17.6.2013

<http://www.peda.net/veraja/uta/vetculture> 17.6.2013

7.2 Projects and Activities Related to Network Issues

7.2.1 Campus Conexus

Campus Conexus is a set of networked research and development projects which are carried out by six Finnish universities and three student organizations. Its purpose is to strengthen the cultural practices of the universities promoting learning and teaching.

The central objective of the project is to produce practices which promote the engagement of the students to the expert community and support studying, learning and the process of development of expertise and thus prevent educational exclusion of university students.

Keywords describing the spirit of the project are future, engagement, community,

network, guidance, holism and higher education. The word 'conexus' means 'twined together.

The projects are carried out in 2009–2013 and they are financed by the European Social Fund.

Campus Conexus. Tampere University 2013. Campus Conexus Projects. Referred 17.6.2013

<http://www.campusconexus.fi/InfoinEnglish/tabid/2168/Default.aspx>

7.2.2 Master Programme in Vocational Pedagogy in Uganda/Sudan

The Master programme in Vocational Pedagogy is a project in a partnership between Kyambogo University (KyU), Upper Nile University (UNU) and Akershus University College (HiAk). The overall objective is to expand and advance the capacity and capability for development in Vocational Education and Technical Training (VET). VET development - or skills formation - is essential for advancement of both the formal and the informal sector of the Ugandan and Sudanese economies - as acknowledged by the Governments and relevant authorities in these countries.

This project has as its overall objective to provide and facilitate advanced training of VET planners, leaders, supervisors, teachers and instructors - as well as VET research and development work.

Institute for Educational Research 2013. Network Related Activities. Referred 17.6.2013

<http://www.peda.net/veraja/uta/vetculture/identity/activity>

8 INTERNATIONAL COOPERATION IN VET

8.1 Copenhagen Process

EU launched the Copenhagen Process in order to enhance the quality and attraction of vocational education and to promote mobility among vocational students and graduates.

Finnish Ministry of Education and Culture 2013. International Affairs. Referred 27.5.2013

http://www.minedu.fi/OPM/Kansainvaeliset_asiat/Kansainvxlinen_yhteistyx_koulutuksessa/index.html?lang=en

The overall aim is to improve the quality of vocational training and to encourage more individuals to make wider use of vocational learning opportunities, whether at school, in higher education, in the workplace, or through private courses

European Commission 2013. Copenhagen Process. Referred 17.6.2013

http://ec.europa.eu/education/vocational-education/copenhagen_en.htm

8.2 Bruges Communiqué

The Bruges Communiqué on enhanced European Cooperation in Vocational Education and Training for the period 2011-2020 reinforces the main VET development directions established within the Copenhagen Process. The Communiqué was adopted by the European Ministers for Vocational Education and Training, the European Social Partners and the European Commission, at their meeting in Bruges on 7 December 2010 to review the strategic approach and priorities of the Copenhagen process for 2011-2020.

The Bruges Communiqué presents a vision of a modern and attractive vocational training system which ensures:

- Maximum access to lifelong learning so that people have opportunities to learn at any stage in life and by making routes into education and training more open and flexible.
- More opportunities for experience and training abroad to boost language skills, self-confidence and adaptability.
- Higher quality courses, providing the right skills for specific jobs,
- More inclusion and access for disadvantaged people,
- Creative, innovative and entrepreneurial thinking.

The Bruges Communiqué includes a mid-term plan aimed at encouraging concrete measures at national level and support at European level. This calls for countries to:

- Review the use of incentives, rights and obligations to encourage more people to take up training.
- Implement the 2009 recommendation on quality assurance in vocational training.
- Encourage the development of vocational schools, with the support of local and regional authorities.
- Introduce internationalization strategies to boost international mobility.
- Increase cooperation with business to ensure training is relevant, for instance by giving teachers the possibility of practical training in companies.

- Launch communication strategies to highlight the benefits of vocational training.

EQAVET, European Quality Assurance in VET 2013. Bruges Communiqué. Referred 18.6.2013

<http://www.eqavet.eu/gns/policy-context/european-policy/bruges-communique.aspx>

8.3 CEDEFOP

CEDEFOP is the centre for the development of Vocational Training. The mission is to support development of European VET policies and contribute to their implementation.

Cedefop's strategic objective is to 'strengthen European cooperation and support the European Commission, Member States and social partners in designing and implementing policies for an attractive VET that promotes excellence and social inclusion'.

The strategic objective is supported by three medium-term priorities for 2012-2014:

- Supporting modernization of VET systems
- Careers and transitions – Continuing VET, adult and work-based learning
- Analyzing skills and competence needs to inform VET provision

CEDEFOP 2013. Mission. Referred 24.6.2013

<http://www.cedefop.europa.eu/EN/about-cedefop/mission.aspx>

Cedefop is helping the European Commission, EU Member States and the social partners to develop the right European VET policies. The right VET policies depend on understanding how economies, societies and people are changing.

Cedefop works to strengthen European cooperation and provide the evidence on which to base European VET policy. Cedefop's added value is the high quality of its comparative analyses and expertise gathered through research and networking, which are used to:

- Provide technical advice and propose ideas for VET policies;
- Fill knowledge gaps and generating new insights that identify trends in and challenges for VET
- Increase awareness of VET's image and importance;
- Bring together policy-makers, social partners, researchers and practitioners to share ideas and debate the best ways to improve VET policies;
- Support and encourage joint European approaches, principles and tools to improve VET.

Cedefop works closely with the European Commission, Member States' governments, representatives of employers and trade unions, VET researchers and practitioners. It provides them with up-to-date information on developments in VET as well as opportunities for policy debate.

Cedefop disseminates its information through its website, publications, networks, study visits, conferences and seminars

CEDEFOP 2013. About Cedefop. Referred 24.6.2013

<http://www.cedefop.europa.eu/EN/publications/18538.aspx>

9 LIFELONG LEARNING PROGRAMME

9.1 EU Strategy

Politicians at the European level have recognized that education and training are essential to the development of today's knowledge society and economy. The EU's strategy emphasizes countries working together and learning from each other.

The long-term strategic objectives of EU education and training policies are:

- Making lifelong learning and mobility a reality;
- Improving the quality and efficiency of education and training;
- Promoting equity, social cohesion and active citizenship;
- Enhancing creativity and innovation, including entrepreneurship, at all level of education and training.

Website of European Commission. Strategic Framework for Education and Training.

Referred 16.5.2013

http://ec.europa.eu/education/lifelong-learning-policy/framework_en.htm

9.2 Lifelong Learning Programme

The European Commission's Lifelong Learning Programme enables people at all stages of their lives to take part in stimulating learning experiences, as well as helping to develop the education and training sector across Europe.

With a budget of nearly €7 billion for 2007 to 2013, the programme funds a range of actions including exchanges, study visits and networking activities. Projects are in-

tended not only for individual students and learners, but also for teachers, trainers and all others involved in education and training.

European Commission 2013. The Lifelong Learning Programme: Education and Opportunities for All. Referred 16.5.2013

http://ec.europa.eu/education/lifelong-learning-programme/index_en.htm

9.3 Responsible Agency

Centre for International Mobility (CIMO) is in charge of the administration and implementation of the Lifelong Learning Programme (LLP) in Finland. The programme covers the whole spectrum of education, targeting pupils and students; teachers, trainers and other teaching staff; as well as organizations and other bodies involved in education and training.

9.4 Four Sub-programmes in Lifelong Learning

There are four sub-programmes which fund projects at different levels of education and training:

- Comenius for schools
- Leonardo da Vinci for VET
- Erasmus for higher education
- Grundtvig for adult education

A ‘transversal’ part of the programme relates to areas (such as language learning) that are relevant to all levels of education, and Jean Monnet actions stimulate teaching and research projects on European integration.

As the national agency of the LLP, CIMO gives information on the programme, provides assistance with application, manages the selection of projects, supports and monitors their implementation and gives out information on the results of the programme.

CIMO is also the national Euro guidance centre in Finland, funded through the Lifelong Learning Programme. The Euro guidance network links together the careers guidance systems in Europe.

Centre for International Mobility 2013. EU Programmes. Referred 16.5.2013.

http://www.cimo.fi/programmes/eu_programmes

9.4.1 Leonardo da Vinci Programme

The Leonardo da Vinci Programme funds practical projects in the field of vocational education and training. Initiatives range from those giving individuals work-related training abroad to large-scale co-operation efforts.

Part of the European Commission's Lifelong Learning Programme, this programme funds many different types of activities of varying scales. These include 'mobility' initiatives enabling people to train in another country, co-operation projects to transfer or develop innovative practices, and networks focusing on topical themes in the sector.

The people able to benefit from the programme range from trainees in initial vocational training, to people who have already graduated, as well as VET professionals and anyone from organisations active in this field.

Leonardo da Vinci enables organisations in the vocational education sector to work with partners from across Europe, exchange best practices, and increase their staff's expertise. It should make vocational education more attractive to young people and, by helping people to gain new skills, knowledge and qualifications, the programme also boosts the overall competitiveness of the European labour market.

Innovation projects are key to the programme. They aim to improve the quality of training systems by developing and transferring innovative policies, courses, teaching methods, materials and procedures.

European Commission 2013. Leonardo da Vinci Programme. Referred 24.6.2013

http://ec.europa.eu/education/lifelong-learning-programme/ldv_en.htm

10 YOUTH GUARANTEE IN FINLAND

Young people in Finland are mainly well educated. However, among 20–29 year olds, around 110 000 have completed only comprehensive school. 55 000 young people are unemployed jobseekers. Youth unemployment is on the increase.

There are estimated 40 000 untrained young people who are not working or taking part in education or training programmes. Such exclusion among the young costs the state approximately 300 million Euros a year. The intention of the youth guarantee is to ensure that young people have access to education, training and employment and prevent them from being excluded from the society. The cross-administrative youth guarantee took effect from the start of 2013.

The Finnish youth guarantee is to be based on the Public-Private-People-Partnership model, where young adults are themselves the actors, responsible for their own future. Youth guarantee is a primary goal of the Government Programme and will be implemented throughout the government's term of office. The youth guarantee promotes inclusion of the young people through three approaches:

- Help these young people back into education, training or employment
- Develop youth services to promote social inclusion

- Create a context for collecting feedback from young people how the services work for them, and how the measures adopted function, and in addition what needs to be improved.

10.1 Youth Guarantee

The youth guarantee will offer everyone under the age of 25, as well as recent graduates under age of 30 an employment, a study place, a place in the on-the-job training or in a rehabilitation within three months after becoming unemployed.

The youth guarantee consists of various elements: a guarantee of employment, educational guarantee, a young adults' skills programme, a youth workshop, and outreach youth work.

The Finnish Ministry of Education and Culture will be responsible for the guarantee of education and training, the young adults' skills programme, the youth workshop and outreach youth work. The project is being implemented in collaboration with the Ministry of Employment and the Economy and the Ministry of Social Affairs and Health.

10.2 Implementation of Youth Guarantee

The educational guarantee as part of the youth guarantee will offer everyone who has just completed comprehensive school a place in further education or training.

10.2.1 More Study Places in Vocational Education

An additional 1 700 study places have been created in vocational education in areas where there were fewer study places for people in this age group than elsewhere.

This makes it easier for young people to move into vocational training and education, cutting the numbers of those who are excluded from educational courses.

10.2.2 New Selection Criteria

The selection criteria in vocational education are undergoing a change, with those who have completed comprehensive school and those without upper level vocational qualification being given priority to study for such a qualification.

10.2.3 Counseling Services

Student counseling during basic education ends when basic education ends.

The aim is that local authorities will be obliged to offer counseling services for the comprehensive school graduates.

10.2.4 Supporting Language Learning of Young Immigrants

Compared with the population as a whole, young immigrants account for a greater number of those who do not apply for, have not been selected for, or who have quit or dropped out of study places. The situation is especially challenging for those who have arrived in Finland in the final stages of the basic education. More language training for immigrants will be offered in folk high schools and adult education centers to promote the young immigrants' competence to study and their language skills.

10.2.5 Apprenticeship Training Compensation

The apprenticeship system will be developed to make it more suitable also as a form of young person's education or training. Employers will receive a higher compensation for apprenticeships offered to young comprehensive school graduates.

10.3 Young Adults Skills Programme

For those aged between 20 and 29 who have completed only basic education before the Educational Guarantee takes effect, a young adults' skills programme will provide better opportunities for applying for vocational education and training leading to a degree or other qualification. The program will be organized during the period 2013–2016.

In the programme, young people will be able to gain an upper secondary vocational, further vocational or specialist vocational qualifications. It is hoped that annually 36 000 people will start in the programme.

Through the programme guidance and counseling on how to apply for study places and how to proceed in studies will be increased.

10.4 Workshop Activities and Outreach Youth Work as Means of Support

Workshop activities and outreach youth work represent early intervention in youth exclusion. The work is targeted at young people who are inactive and who need other support (NEETs = not in employment, education or training). Both types of activity will be expanded in the period 2013–2016. The main tasks of the youth workshop are to strengthen young people's life skills and social empowerment, provide early support, and promote greater steady social awareness and learning by doing. The workshop is an opportunity for young people to participate in supervised, subsidized employment schemes, follow a tailor-made educational/training path, or find employment on the open labor market. The Youth Guarantee is a tool for improving the quality of workshops and strengthening cooperation between them and educational

establishments on a young person's educational/training path. The task of outreach youth work is to help young people who are not in education, training or employment or who need support, and refer them to the services that are right for them. The Finnish Youth Act has laid down provisions on outreach youth work and multidisciplinary cooperation at local level since 2011. The Youth Guarantee will be a way to make these activities available all over the country.

10.5 Support of Youth Employment

Youth employment is to be supported by making the 'Sanssi Card' a permanent feature of the system. The Sanssi card is a model designed to promote wage subsidy and it has lowered the employer threshold for hiring young people. Wage subsidy enables employers to benefit from a contribution of 670 Euros a month that is to compensate their employment costs. There will also be more youth services and career guidance provided at the Employment and Economic Development Offices, and new forms of entrepreneurship are to be developed through training, advice and start-up grants.

10.6 Funding of Youth Guarantee

The government has agreed that the Youth Guarantee is to receive 60 million Euros a year. Approximately half of this sum will go to the administrative sector of the Ministry of Education and Culture, and the rest to the equivalent branch of the Ministry of Employment and the Economy. Furthermore, the young adults' skills programme will receive 27 million Euros in 2013 and 52 million Euros in the years 2014–2016. There will be more funding available for youth workshop activities and outreach youth work: the appropriation for years 2013–2015 will increase to 19.5 million Euros and to 11.5 million Euros in 2016.

Finnish Ministry of Education and Culture 2012. Youth Guarantee in Finland 2012. Referred 23.5.2013
http://www.minedu.fi/export/sites/default/OPM/Julkaisut/2013/liitteet/The_Youth_Guarantee_in_Finland.pdf?lang=en

11 STATISTICS IN FINLAND

11.1 Population Structure

According to Statistics Finland's statistics on the population structure, the official total population of Finland at the end of 2012 was 5,426,674, of whom 2,666,622 were men and 2,760,052 women. In the course of 2012, Finland's population grew by 25,407 persons.

11.2 Demographic Dependency Ratio

At the end of 2012 in Finland, there were 891,392 children aged 15 or under, and 3,517,089 persons aged between 15 and 64. The number of persons aged 65 and over exceeded one million during 2012 and there were 1,018,193 of them at the end of 2012.

The demographic dependency ratio is the number of those aged 15 or under and 65 or over per 100 working age persons. Finland's demographic dependency ratio was 54.3, at the end of 2012. Last time the number was this high was in 1964. During Finland's independence, the demographic dependency ratio was at its highest in 1917 (67.6) and at its lowest in 1984 (46.7)

Official Statistics of Finland (OSF) 2013: Population Structure 2012. Helsinki: Statistics Finland. Referred 14.5.2013.

http://tilastokeskus.fi/til/vaerak/index_en.html

11.3 People in Vocational Education and training

11.3.1 Students in Apprenticeship training in 2011

According to Statistics Finland, 56,900 students attended apprenticeship training leading to a qualification or degree during calendar year 2011. The number of students was 5 % lower than in the previous year. 41 % of the students attended training for an initial vocational qualification, 30 % for a further vocational qualification and 29 % for a specialist vocational qualification. 52% of the students were women.

New students numbered 22 000. Of the students, 13 300 completed an entire qualification. Of the completed qualifications, 45 % were initial vocational qualifications, 30 % further vocational qualifications and 25 % specialist vocational qualifications. 55 % of the qualifiers were women. These data have been collected from the organizers of apprenticeship training.

New students (in 2011) total: **21 977**

Students total (in 2011): **56 876**

Completers of a qualification (in 2011) total: **13 271**

Official Statistics of Finland (OSF) 2012: Vocational Education 2011. Helsinki: Statistics Finland. Referred: 20.5.2013.

http://tilastokeskus.fi/til/aop/2011/04/aop_2011_04_2012-11-06_tie_004_en.html

12 ENERGY RELATED VET PROGRAMS

12.1 Further Qualification in Bio-energy

Composition of the qualification

The common module of the qualification is knowledge of the bio-energy sector. In addition, one of the following modules must also be chosen:

- fuel wood harvesting
- chipping and crushing of fuel wood
- peat production, energy crop production
- heat generation and biomass processing.

In addition, it is also possible to take the optional bio-energy entrepreneurship module.

Finnish National Board of Education 2013. Certificate Supplement. Further Qualification in Bioenergy. Referred 12.6.2013

http://www.oph.fi/download/134973_Bioenergy_Further_Qualification_.pdf

12.2 Further Qualification for District Heating Fitters

Composition of the qualification

The common modules of the qualification are:

- basics of district heating operations
- district heating plants
- district heating networks and
- customer-specific district heating equipment.

In addition, it is also possible to take the following modules:

- connection and replacement of electrical machinery, and equipment and;
- entrepreneurship

Finnish National Board of Education 2013. Certificate Supplement. Further Qualification for District Heating Fitters. Referred 12.6.2013

http://www.oph.fi/download/134950_District_Heating_Fitters_Further_Qualification_.pdf

12.2.1 Specialist qualifications for District Heating Fitters

Award of the qualification certificate also requires candidates to hold the following valid certificates: First Aid Certificate 1, Road Safety Card 1 or 2, and the Occupational Safety Card.

Finnish National Board of Education. Certificate Supplement. Specialist Qualification for District Heating Fitters. Referred 12.6.2013

http://www.oph.fi/download/134217_District_Heating_Fitters_Specialist_Qualification_.pdf

12.3 Further Qualification for Property Maintenance Operatives

Composition of the qualification

The qualification comprises three compulsory modules:

- basic property maintenance skills and knowledge
- maintenance and servicing of heating and plumbing systems and;
- building maintenance and upkeep.

In addition, one of the following modules must also be taken:

- maintenance and upkeep of outdoor areas
- maintenance and servicing of air-conditioning systems or entrepreneurship.

Finnish National Board of Education 2013. Certificate Supplement. Further Qualification for Property Maintenance Operatives. Referred 12.6.2013

http://www.oph.fi/download/133993_Property_Maintenance_Operatives_Further_Qualification_.pdf

12.3.1 Specialist Qualification for Property Maintenance Operatives

Composition of the qualification

The modules of the qualification are:

- skills and knowledge of property maintenance operatives
- life-cycle management of properties
- production skills

In addition, one of the following modules:

- building automation
- construction engineering or entrepreneurship.

Finnish National Board of Education 2013. Certificate Supplement. Specialist Qualification for Property Maintenance Operatives. Referred 12.6.2013

http://www.oph.fi/download/134221_Property_Maintenance_Operatives_Specialist_Qualification_.pdf

12.4 Further Qualification for Heating Equipment Fitters

Composition of the qualification

The common module of the qualification is electrical work in heating equipment fitting.

In addition, candidates must choose one module from group 1 and one module from group 2. The optional module in group 2 may be replaced by taking another module from group 1.

Group 1: oil heating equipment, gas heating equipment and wood pellet heating equipment.

Group 2: solar heating equipment, heat pump heating equipment and entrepreneurship.

The optional module in group 2 may also be replaced with a module of some other Further or Specialist Qualification that extends vocational competence required in the field. However, this may not be a module focusing on basic skills in the qualification in question (basic skills and knowledge in the field or equivalent).

Finnish National Board of Education 2013. Certificate Supplement. Further Qualification for Heating Equipment Fitters. Referred 12.6.2013

http://www.oph.fi/download/133991_Heating_Equipment_Fitters_Further_Qualification_.pdf

12.5 Further Qualification for Pipefitters

Composition of the qualification

The common modules of the qualification are:

- basic pipefitting skills and knowledge
- heating and plumbing systems.

In addition, one of the following modules must also be taken:

- measuring and control engineering
- pipefitting for fire-extinguishing systems
- pipefitting for oil heating systems
- pipefitting for pneumatic systems
- connection and replacement of electrical machinery and equipment, and
- entrepreneurship

The optional module may also be replaced with an appropriate module of some other further or specialist qualification.

Finnish National Board of Education 2013. Certificate Supplement. Further Qualification for Pipefitters. Referred 12.6.2013

http://www.oph.fi/download/134951_Pipefitters_Further_Qualification_.pdf

12.5.1 Specialist Qualification for Pipefitters

Composition of the qualification

The common modules of the qualification are:

- basic pipefitting skills and knowledge
- heating
- plumbing systems
- measuring technology and control engineering
- pipefitting for compressed air systems
- production skills and site operations

In addition, candidates must take:

- Either pipefitting for laboratory and hospital gas systems or
- pipefitting for heat recovery and cooling equipment.

In addition, it is also possible to take the entrepreneurship module.

Finnish National Board of Education 2013. Certificate Supplement. Specialist Qualification for Pipefitters. Referred 12.6.2013

http://www.oph.fi/download/134220_Pipefitters_Specialist_Qualification_.pdf

12.6 Further Qualification for Power Plant Operators

Composition of the qualification

The Requirements of the Competence-based Qualification include separate vocational skills requirements for assistant engineers, Class A engine attendants and Class B engine attendants.

The three compulsory modules of the Further Qualification for Power Plant Operators are to be chosen from the following three alternative combinations:

- power plant water management, heat production management, and basics of turbine installation management; or
- power plant water management, turbine installation management and basics of heat production management;
- or heat production management, turbine installation management and basics of power plant water management.

The basics of heat production management and heat production management modules include four areas of specialized competence (diesel engines, district heat production, forest industry boilers, operation of desulphurization and denitrification plants), one of which must be taken. In addition to the compulsory modules, it is also possible to take the entrepreneurship module.

Finnish National Board of Education 2013. Certificate Supplement. Further Qualification for Power Plant Operators. Referred 12.6.2013

http://www.oph.fi/download/134025_Power_Plant_Operators_Further_Qualification_.pdf

12.6.2013

13 INSULATION RELATED VET PROGRAMMES

13.1 Further Qualification in Technical Insulation

Composition of the qualification

The common module of the qualification is: basic technical insulation skills and knowledge. In addition, candidates must take two optional modules from group 1 or one module from group 1 and one from group 2. The optional module from group 2 may also be replaced with an appropriate module of some other further or specialist qualification.

The modules in group 1 are:

- insulation of building maintenance technology equipment, and;
- industrial insulation

The modules in group 2 are:

- cold insulation, sound insulation
- ship insulation and
- high temperature insulation

In addition, all candidates are also free to take the entrepreneurship module.

Finnish National Board of Education 2013. Certificate Supplement. Further Qualification in Technical Insulation. Referred 12.6.2013

http://www.oph.fi/download/134952_Technical_Insulation_Further_Qualification_.pdf 12.6.2013

13.2 Vocational Qualification in Building Maintenance and Technology

Vocational Qualification in Building Maintenance Technology, 120 credits (180 ECTS)

Study Programme in Insulation and Construction Sheet-metal Installation, Technical Insulator (EN)

Composition of the qualification

The compulsory qualification modules of the Study Programme/Competence Area in Insulation and Construction Sheet-metal Installation for candidates specializing as Technical Insulators are:

- sheet-metal work (10 credits, 15ECTS)
- industrial insulation (20 credits, 30ECTS)
- building insulation (10 credits, 15ECTS)
- and cold insulation (10 credits, 15ECTS)

The qualification includes optional modules that support vocational specialization, such as heating, plumbing and ventilation renovation and heating, plumbing and ventilation design.

Furthermore, it is possible to choose modules from other vocational, further and specialist qualifications. In addition, students on curricular (school-based) upper secondary VET programmes may also take qualification modules developed to meet the needs of the local world of work. The total scope of vocational qualification modules is 90 credits (scopes do not apply to competence-based qualification modules). In addition, students on curricular (school-based) upper secondary VET programmes must take 20 credits of core subjects and 10 credits of free-choice qualification modules. Students may individually choose modules to expand the qualification.

Finnish National Board of Education 2013. Certificate Supplement. Vocational Qualification in Building Maintenance Technology. Referred 12.6.2013

http://www.oph.fi/download/133147_Technical_Insulator_Insulation_and_Construction_Sheet-metal_Installation_Study_Programme_.pdf

Requirements for Vocational Qualification in Building Maintenance Technology
2011. Referred 12.6.2013

http://www.oph.fi/download/140410_vocational_qualification_in_building_maintenance_technology_2010.pdf

14 ENTREPRENEURSHIP IN VET

Vocational education and training offers a practically oriented channel to entrepreneurship. The core curricula in initial vocational education and training and in training for competence-based qualifications will be revised to include at least five credits (weeks of study) of entrepreneurship and business studies. All students gain basic knowledge about entrepreneurship and skills to work in an entrepreneurial manner in the employ of others.

The entrepreneurship component is assessed like all other competence included in the vocational qualification. Apart from gaining knowledge about entrepreneurship, vocational students also develop entrepreneurial skills in practice at a workplace. All vocational qualifications include at least 20 credits of on-the-job learning at a genuine workplace. Vocational skills demonstrations are given and assessed at the workplace, with the participation of the employer's representatives.

Teachers' knowledge of working life will be upgraded by means of in-service training and especially secondments, during which teachers can see entrepreneurship in practice. The learning environments will be developed jointly with businesses to give more support to entrepreneurship education by means of learning in mock enterprises and in entrepreneurship networks. Students can also draw up business plans with a view to setting up businesses of their own.

In adult vocational education and training, adults study for competence-based vocational, further vocational and specialist vocational qualifications.

In these, the required knowledge and skills are mainly demonstrated in genuine work situations.

The core curricula include entrepreneurship either as a compulsory or elective component. This means that the candidates also acquire more entrepreneurial knowledge and skills in training preparing for the examination.

In adult education and training, it is also possible to study for specialized entrepreneur qualifications.

The Further Qualification for Entrepreneurs is intended for people who are starting their career in business or planning to set up a business.

The Specialist Qualification in Management in turn is geared to experienced entrepreneurs who want to further develop their business strategy, a given operation in their business or their own managerial skills. During the training, experienced mentors and fellow students give valuable support and feedback both to start-up business owners and to old hands.

In connection with adult vocational education and training, small businesses in particular are offered knowledge development services.

Finnish Ministry of Education and Culture. Guidelines for Entrepreneurship Education 2009. Referred 11.6.2013

<http://www.minedu.fi/export/sites/default/OPM/Julkaisut/2009/liitteet/opm09.pdf>

14.1 Further Qualification for Entrepreneurs

Composition of the qualification

The compulsory modules of the qualification common to all are:

- Specification of a business idea
- drawing up a business plan and
- implementation of a business plan.

Finnish National Board of Education 2013. Certificate Supplement. Further Qualification for Entrepreneurs. Referred 12.6.2013

http://www.oph.fi/download/133971_Entrepreneurs_Further_Qualification_.pdf

15 EDUCATIONAL FORESIGHTS

In Finland one important ongoing development is the change in the age structure of the population and work force. At present the annual exit from the labor force exceeds the entry.

Quantitative and content development in education entails estimates of future educational and labor needs. These education foresights form part of education policy steering and decision-making, which influence matters far into the future.

Foresight looks far into the future because, owing to the duration of qualification and degree education. The graduates enter the labor market five to eight years after the decisions on education provision have been made. In addition, they will remain in the labor force for decades, so that basic and initial education, especially provision catering for young people, must be examined over a time span of 10 to 15 years.

The policy outlined in the development plan for education and research influences the quality, quantity and structure of education, notably target numbers, for the following four years and beyond.

The details of higher education provision are agreed in the three-year performance agreements. Polytechnics agree with the Ministry of Education and Culture on the intakes in each field of education, and universities on the target number of degrees and target intakes. The authorizations to provide VET specify the maximum number of students, which the training providers divide among and within their fields of education.

Finnish Ministry of Education and Culture 2013. Educational Foresights.
Referred 13.5.2013

<http://www.minedu.fi/OPM/Koulutus/koulutuspolitiikka/ennakointi/?lang=en>

16SUMMARY

The main objective of the Finnish educational system is to offer all citizens, irrespective of their background, equal opportunities to receive education. Education is a basic fundamental right and is recorded in the Constitution of Finland. Basic education is compulsory and provided free of charge.

In the 1970's, the Finnish educational system reformed and changed into a publicly funded system that permeates quality, efficiency, equity and highly qualified teachers, ranking top amongst OECD nations on PISA surveys. This is done with relative low cost; Finland spends less per student compared with other OECD countries. Differences between schools and regions are remarkably small in Finland and difference between strongest and weakest student is among the smallest in the world.

One of the key topics in the Development Plan for Education and Research includes raising the level of education of the population. The aim is that by 2015, 92, 5% of the population in the age group 25-34-year olds will pass an examination on upper secondary or tertiary level, providing post compulsory education to whole age groups.

The post-compulsory level is divided into general education and initial and further vocational education and training. VET comprises initial vocational training and further and continuing training. Vocational qualification has been designed to respond to labor market needs, and it gives eligibility to higher education (university and polytechnic studies).

The Finnish educational structure builds on open avenues, avoiding dead ends, enabling people to develop their knowledge and skills throughout their lifespan.

One of the challenges facing the Finnish education sector is how education will respond to the constant aging of the population.

REFERENCES

APPENDIX 1