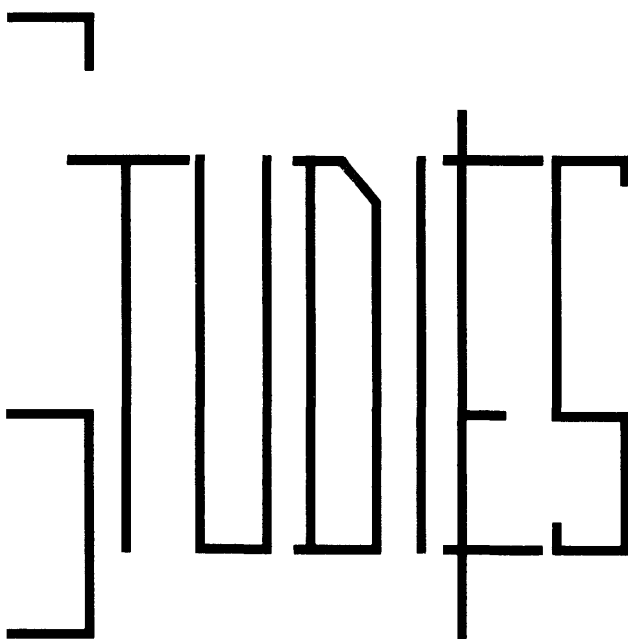


COMMISSION OF THE EUROPEAN COMMUNITIES



*Apprenticeships in the
Grand Duchy of Luxembourg*

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Apprenticeships in the Grand Duchy of Luxembourg

By

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C O N T E N T S

	<u>Page</u>
I. Brief description of the system of vocational training	5
A. Authorities and institutions responsible for vocational training	5
B. Legal basis and provisions governing vocational training Legislative and regulatory schedules	6
1. Laws and regulations governing vocational training in the craft trades, industry and commerce	6
2. Additional laws and regulations connected with vocational training in the craft trades, industry and commerce	8
3. Agricultural education	9
4. Paramedical training	10
5. Teaching in chemistry departments	11
C. The normal methods of financing vocational training	11
D. The duration of the various stages of training and the objectives which they enable to be attained	12
A. Full-time training in schools	12
B. Training by employers	14
E. Typical spheres of training	16
F. Opportunities for promotion	17
G. Facilities in some individual sectors of vocational training	17
H. Equality of opportunity in access to education for all	18
I. "Permeability" of the educational system	18
J. Stronger motivation towards continuing one's education	19
K. Measures taken in some special spheres of vocational training	19
II. The contract of apprenticeship	20
A. Apprentices under the age of 18	26
B. Apprentices over the age of 18	28
III. Vocational guidance	33
A. The vocational guidance service of the Department of employment	33
B. The Department of Educational Guidance and Social Services (DOSS) in the Ministry of Education	41
C. Criticisms and proposals	43

IV. The training programmes	45
V. The craft sector	46
A. Preliminary considerations	46
B. Craft apprenticeship	46
VI. The industrial sector	62
VII. Commercial apprenticeship	66
VIII. The agricultural sector	80
I. The Agricultural Training Institute at Ettelbruck	80
II. The Rural Domestic Science Centre at Mersch	82
IX. Apprenticeship - training of adults	83
X. Comments and criticisms expressed by interested parties	85
A. Association of teachers in technical and vocational education	85
B. Opinion of the principal of the Northern Intermediate and Vocational College	86
C. Opinion of the principal of the Eastern Intermediate and Vocational College	88
D. Opinion of the Inter-Union Committee of Professional Organizations of Craft Workers	90
A. Introduction	90
B. Proposals on the training of craftsmen	94
E. Opinion of the Chamber of Private Employees	102
F. Joint opinion of the Chamber of Commerce and the Chamber of Labour on a reform of industrial apprenticeship	106
XI. The new aspects of vocational training	118
XII. Prospects for the future	136
I. Towards a reform of technical education	136
II. Towards a reform of the mastership examination in the craft sector	146

I. Brief description of the system of vocational training

A. Authorities and institutions responsible for vocational training

All aspects of vocational training (by both employers and schools) are the responsibility of the Ministry of Education in conjunction with the professional institutes; the latter are responsible for the length of the apprenticeship period and for the training programmes and they also organize the final apprenticeship examinations.

Luxembourg has a double system of vocational training:

- 1) Full-time training in schools (theoretical and practical) is given in technical and vocational schools after the six years of primary education has been completed. This training lasts for either five years (to CAP level: CAP = certificat d'aptitude professionnelle, ie certificate of vocational aptitude), seven years (to the level of technician) or nine years (to the level of engineer-technician). Each of the three levels always ends in a final examination organized by the Ministry of Education.
- 2) Training by employers, with accompanying day-release courses ("cours concomitants"), starts when the compulsory nine-year schooling period is finished (ie after six years of basic primary education plus three years of additional primary education or preparatory vocational education) and continues through an apprenticeship period which varies according to trade (three, three-and-a-half or four years) until the final apprenticeship examination organized by the employers' professional institutes (Chambre des Métiers - ie Chamber of Trades - for the craft sector, Chamber of Commerce for the industrial and commercial sector). The practical side of the training takes place principally in the firms themselves, while the theoretical side is taught in technical colleges (four, six or eight

lessons per week in the craft sector and 12 to 16 lessons per week in the industrial sector).

B. Legal basis and provisions governing vocational training

Legislative and regulatory schedules

1. Laws and regulations governing vocational training in the craft trades, industry and commerce

1.1. Training formula: Apprenticeship to an employer with accompanying day-release courses

1.1.1. GENERAL PROVISIONS

1.1.1.1. Apprenticeship law of 5 January 1929

(the basic law governing apprenticeship)

1.1.1.2. Grand-Ducal decree of 8 October 1945 amending the apprenticeship law of 5 January 1929

(Grand-Ducal decree with full legal force)

1.1.1.3. Law of 2 July 1935 regulating the conditions for obtaining the title of master and the master's certificate in a trade

1.1.1.4. Undergoing drafting:

fundamental law to reform apprenticeship

1.1.2. CRAFT TRADES AND INDUSTRY

Preparation for the final apprenticeship examination:

1.1.2.1. Ministerial regulation of 18 January 1964 establishing the programme and procedure for final apprenticeship examinations in craft trades.

1.1.2.2. Grand-Ducal regulation of 10 September 1966 concerning the organization of apprenticeship in certain craft trades.

- 1.1.2.3. Ministerial regulation of 12 May 1970 on the organization of the end-of-year examination provided for by the Grand-Ducal regulation of 10 September 1966 on apprenticeship in certain craft trades, as amended by the ministerial regulation of 6 June 1972.

Preparation for qualifying as a master:

- 1.1.2.4. Decree of 24 June 1936 regulating the procedure applicable to the mastership examinations.
- 1.1.2.5. Ministerial regulation of 24 March 1962 establishing the programme and procedure of the mastership examinations.
- 1.1.2.6. Ministerial regulation of 31 December 1976 setting up industrial apprenticeship in the iron and steel industry.
- 1.1.2.7. Regulation adopted by the Government in council on 7 January 1977 on the organization of the training of adults preparatory to their taking the CAP (certificate of vocational aptitude).

1.1.3. COMMERCE

- 1.1.3.1. Decision of the interministerial committee for vocational training of 4 June 1957 on the organization of apprenticeships for commercial and office apprentices.
- 1.1.3.2. Decision of the interministerial committee on vocational training on the same subject.
- 1.1.3.3. Ministerial regulation of 22 July 1961 on the organization of apprenticeships for shop assistants and sales personnel.
- 1.1.3.4. Ministerial regulation of 31 May 1968 on the organization of the final apprenticeship examination for pupils of the school of commerce, as amended by the ministerial regulation of 18 May 1971.
- 1.1.3.5. A new regulation is in preparation.

1.2. Training formula: full-time education
(the relevant legislation is embodied in the laws which created
the different types of schools)

1.2.1. Law of 4 March 1896 creating a school for craftsmen.

1.2.2. Law of 3 August 1958 creating an institute of technical education.

2. Additional laws and regulations connected with vocational training in the
craft trades, industry and commerce

2.1. Creation and organization of educational establishments

2.1.1. Law of 18 July 1924 establishing a vocational school at Esch-sur-Alzette.

2.1.2. Grand-Ducal decree of 4 May 1925 on the organization of the vocational
school at Esch-sur-Alzette.

2.1.3. Law of 1 December 1953 establishing centres of vocational education for
apprentices in the craft trades, commerce and industry.

2.1.4. Grand-Ducal decree of 29 July 1954 establishing centres of vocational
education.

2.1.5. Grand-Ducal regulation of 15 July 1969 reorganizing the centres of
vocational education.

2.2. Conditions for the training and appointment of teachers;
outline law relating to teachers

2.2.1. Grand-Ducal regulation of 30 September 1968 laying down the conditions
of entry to the training course and the conditions for the appointment
of fully qualified engineers and architects as teachers at technical
and vocational education establishments.

2.2.2. Grand-Ducal regulation of 6 September 1968 laying down the conditions
of entry to the training course and the conditions for the appointment
of vocational education teachers at technical and vocational education
establishments.

- 2.2.3. Law of 27 September 1968 concerning the staffing of technical and vocational education establishments.
- 2.2.4. Grand-Ducal regulation of 4 February 1970 laying down the conditions of entry to the training course and conditions for the appointment of instructors at technical and vocational education establishments.

3. Agricultural education

3.1. Agricultural College - Institute of Agricultural Education

- 3.1.1. Law of 28 February 1883 on the establishment of an agricultural college at Ettelbruck.
- 3.1.2. Grand-Ducal decree of 2 October 1945 amending certain provisions of the Grand-Ducal decree of 5 May 1933 concerning the new regulation on the organization of the agricultural college at Ettelbruck.
- 3.1.3. Grand-Ducal decree of 13 July 1945 on the State Agricultural College and Station at Ettelbruck (Grand-Ducal decree having the force of law).
- 3.1.4. Ministerial decree of 20 November 1946 on disciplinary and internal regulations at the agricultural college at Ettelbruck.
- 3.1.5. Grand-Ducal regulation of 20 October 1966 amending the Grand-Ducal decree of 5 May 1933 concerning the new regulation on the organization of the State Agricultural College at Ettelbruck.
- 3.1.6. Law of 12 November 1971 establishing an Institute of Agricultural Education at Ettelbruck (conversion of the Agricultural College into an Institute of Agricultural Education).

3.2. Rural Domestic Science Training Centre at Mersch

3.2.1. Law of 9 January 1963 establishing a Rural Domestic Science Training Centre.

3.2.2. Grand-Ducal regulation of 10 June 1963 on recruitment, training and end-of-training examinations for staff of the Rural Domestic Science Training Centre.

3.2.3. Grand-Ducal regulation of 3 December 1964 on the operation of the Rural Domestic Science Training Centre at Mersch.

4. Paramedical training

4.1. Preparatory education

4.1.1. Law of 23 November 1966 establishing preparatory education for the paramedical professions.

4.1.2. Grand-Ducal regulation of 6 September 1968 establishing and organizing departments of preparatory education for the paramedical professions.

4.1.3. Ministerial regulation on the organization of the end-of-year examination in preparatory education for the paramedical professions.

4.2. Professional education proper

4.2.1. Law of 18 November 1967 regulating certain paramedical professions.

4.2.2. Grand-Ducal regulation of 20 June 1969 implementing Articles 1 and 5 of the law of 18 November 1967 regulating certain paramedical professions connected with the nursing profession.

5. Teaching in chemistry departments

- 5.1. Law of 21 August 1969 establishing chemistry departments in technical and vocational education establishments.
- 5.2. Grand-Ducal regulation of 8 June 1971 establishing and organizing chemistry departments in technical and vocational education establishments.
- 5.3. Ministerial regulation of 5 December 1975 on the organization of the end-of-study examination for the lower stage of the chemistry departments in technical and vocational education establishments.
- 5.4. Ministerial regulation of 5 December 1975 on the organization of the end-of-study examination for the higher stage of the chemistry departments in technical and vocational education establishments.

C. The normal methods of financing vocational training

With the exception of two private establishments, vocational training in schools is financed entirely by the State. In principle, the local authorities (communes) in which a vocational school is situated are obliged to contribute to the cost of school building. In practice, this contribution merely takes the form of making building land available.

In addition, the State refunds pupils and apprentices some or all of their travelling expenses, depending on the profession or vocation involved and the results of studies (up to the age of 16 travel to school is free for pupils of all kinds). On top of this, grants are awarded to gifted but needy pupils. The cost of school materials (textbooks, exercise books, etc) is borne by the pupils themselves.

D. The duration of the various stages of training and the objectives which they enable to be attained

A. Full-time training in schools

Compulsory education consists of nine years' schooling. The structure of the education system entails a basic education (common base for all children) comprising six years of primary schooling. After the sixth year most children leave the primary sector (only slightly less than one-third of them continue in the higher classes of the primary sector: the seventh, eighth and ninth years of schooling) and sit an entrance examination to year 7 of the post-primary education sector. This examination offers two options (with a decreasing degree of difficulty and following each other in time): entrance examination for admission to the general secondary education sector (the lycées - grammar or high schools); entrance examination for admission to the intermediate ("moyen") and vocational education sector.

The first-year syllabus in the various post-primary schools (year 7 - "orientation year" - in the lycées; year 7 - "common year" - in the intermediate and vocational sector) covers the same main subjects. The second post-primary years (year 8) in intermediate education and vocational education basically have the same syllabus, with the emphasis on languages and mathematics. In the vocational education sector optional subjects form part of the curriculum (eg workshop, typing, technical drawing, etc), with the object of testing the children's aptitudes and making their final choice easier (year 8 - "orientation"). After the eighth - "orientation" - year, all the options still remain open. It is not until year 9 - "polyvalent" - that the pupil must make a definite choice for one of the groups of trades which are offered at this level.

The "ninth polyvalent" gives the following options:

- a) electricity
- b) woodwork
- c) building
- d) chemistry
- e) commerce
- f) the hotel trade
- g) the food trade
- h) the clothing trade

- i) domestic science
- j) agriculture
- k) printing
- l) artistic professions
- m) paramedical and social professions

Pupils in years 7 and 8 in the higher primary sector who pass an entrance examination are admitted to years 8 and 9 in the vocational sector.

In the tenth - "vocational" - year basic vocational training is intensified, with differentiation and specialization according to the chosen trade or profession. For two branches this is the final year (commerce, class 1 - secretarial/management/accountancy - and domestic science).

The 11th - "vocational" - year is usually the final year of studies at the first vocational level: the CAP (certificate of vocational aptitude) for qualified tradesmen (in engineering, electrical engineering, building, chemistry, etc).

Years 12 and 13 consist of promotion classes for certain trades (training as technician in electrical engineering, chemistry, agronomy, etc).

Admission to training as a technician requires either a certificate of completion of studies at level 11 or a CAP in the relevant speciality.

There are some exceptions to this general pattern of training:

a) The College of Hotel-Keeping:

comprehensive ("polyvalent") training in the hotel industry: kitchen, restaurant, reception, management, etc, for four years, after two years of education (years 7 and 8) in the vocational, intermediate or secondary (lycée) sectors.

b) Paramedical and social professions:

either two years' (years 7 and 8) basic education + three years of specialized preparatory study to CAP level + three years of practical training with accompanying day-release courses for the social professions or five years' education in the general intermediate or secondary sector + training courses.

- c) The fine arts department of the College of Arts and Trades gives students who have received three years' basic education in intermediate, secondary or vocational schools two years' theoretical and practical training in all fields of artistic activity (certificate of completion of studies, CAP level). A third - specializing - year enables students to gain their CAFAS (certificat d'aptitude et de formation artistique supérieur, ie higher certificate of artistic aptitude and training) and serves principally to prepare them for entry to art colleges abroad.
- d) The College of Commerce and Management trains students for two years (years 12 and 13), for junior executive functions in commerce and administration and prepares them for the higher commercial colleges and universities (economic subjects only). Five years' prior education in general intermediate or secondary schools is required.
- e) The College of Engineering Technicians: This college also requires five years' prior secondary, intermediate or vocational education. Its course offers four years of study in mechanical, electrical and civil engineering and confers the qualification of "engineer-technician"; it also gives students the right to enter technical universities, under certain conditions.

B. Training by employers

Training by employers in firms starts either after the ninth "polyvalent" year in the vocational education sector or after the ninth year of primary education (end of compulsory schooling). In the latter case the apprenticeship (under contract) lasts six months to one year longer to enable apprentices to catch up, in day-release courses, with what has been learnt by the other apprentices in the vocational syllabus of the "ninth polyvalent". (The vocational syllabus of the ninth polyvalent is thus obligatory, although it may be learnt in two different ways.) In principle, apprentices are required to secure a pass in each class of the day-release courses (four, six, eight, 12 or 16 hours per week, according to trade).

If apprentices fail to pass, they have two options:

- a) the year of day-release classes can be taken again; if this is done, the apprenticeship contract is extended;
- b) The apprentice can take up a different trade or, in some trades, start practical training without an advanced theoretical side (mechanics, painters, joiners, hairdressers). After passing a practical test (which is the same as that taken by candidates for the CAP in the corresponding trade), the apprentice obtains a certificate of manual ability (CCM - certificat de capacité manuelle).

It should be pointed out, however, that the CCM does not enable the holder to carry on the trade in his own right (ie as a self-employed person). Only holders of the CAP may continue their training until they become technicians (in industry) or masters (in craft trades).

The master's certificate may be obtained at the age of 24 after five years of practical activity in the trade. There are preparatory courses for the mastership examination, but attendance at such courses is not compulsory. The mastership certificate covers three aspects:

- a) mastery of the chosen profession;
- b) management of a firm;
- c) ability to train apprentices.

E. Typical spheres of training

a) Statistical breakdown

Public Establishments

	Boys	Girls	Total
	%	%	%
a) electricity	63	-	41
b) woodwork	1	-	1
c) building	4	-	3
d) chemistry	3	2	2
e) commerce	8	64	28
f) the hotel trade	4	3	3
g) the food trade	3	-	2
h) the clothing trade	-	2	1
i) domestic science	-	7	2
j) agriculture	5	-	3
k) printing	3	1	2
l) artistic professions	3	3	3
m) paramedical and social professions	3	18	9

Private Establishments

	Boys	Girls	Total
	%	%	%
a) electricity	79	-	22
b) woodwork	2	-	1
c) building	-	-	-
d) chemistry	-	-	-
e) commerce	17	58	47
f) the hotel trade	-	-	-
g) the food trade	-	-	-
h) the clothing trade	-	2	1
i) domestic science	-	27	20
j) agriculture	-	-	-
k) printing	-	-	-
l) artistic professions	1	-	-
m) paramedical and social professions	1	13	9

F. Opportunities for promotion

There are promotion classes to enable students to gain the qualification of technician in the electrical engineering, chemical and agricultural sectors. Promotion classes are being planned for the engineering and building sectors (see also the College of Engineer-Technicians).

In the craft trades sector mastership constitutes the normal means of promotion.

G. Facilities in some individual sectors of vocational training

a) "Vocational mobility"

- 1) Vocational training on a multi-option ("polyvalent") basis: grouping of trades in the "ninth polyvalent".
- 2) Some technical colleges offer polyvalent education up to CAP level. For example, the completion-of-studies examination at a technical college in the subject "Mechanics" allows students to study for related jobs such as motor mechanic, lathe operator, milling machine operator, etc. The civil engineering section of the engineer-technician's diploma covers all sectors of the construction industry: architecture, roads, bridges, etc. The diploma obtained on completion of studies at the College of Hotel-Keeping enables successful candidates to carry on the profession of cook, caterer, restaurateur, hotelier, etc.
- 3) There is a possibility of legally reducing the length of the apprenticeship period if there is a change of trade (accelerated training).
- 4) There are evening classes and adaptation classes in some sectors.

H. Equality of opportunity in access to education is guaranteed for all by the following means:

- 1) there is deliberate regionalization of schools;
- 2) education is free and there are no examination fees;
- 3) a special training road and a qualification certificate have been introduced for workers whose skills are essentially practical and manual;
- 4) travel to school is largely free; educational materials are provided free if performance at school is satisfactory;
- 5) basic and preparatory education in the vocational sphere are highly regionalized (the rural regions are not at a disadvantage);
- 6) the existence of polyvalent years (7, 8 and 9) enables pupils to choose their careers in accordance with their true aptitudes;
- 7) allowance is made for language difficulties experienced by foreigners taking the examinations;
- 8) foreigners are allowed to practise a trade without a CAP (admission to mastership examination without CAP).

I. "Permeability" of the educational system

This "permeability" is only at the stage of experiment and implementation, but it is already jeopardized by:

- 1) the first two common years of vocational education and intermediate education;
- 2) the creation of preparatory classes and reception classes for pupils coming from other education systems (special classes for foreigners);
- 3) grouping of several different educational categories within a single building;
- 4) multiple routes of access to vocational education classes, eg at the College of Engineer-Technicians admission is granted to pupils from lycées, from vocational education and from technical colleges;

5) permeability will be extended by the introduction of an integrated stage (common base) for all children from 12 to 15.

J. Stronger motivation towards continuing one's education

Establishment of a system of (free) adult education.

Very wide range of advanced training courses.

K. Measures taken in some special spheres of vocational training

1) Vocational problems of foreign workers

- a) Creation of a centre for accelerated training for foreign workers in the building industry in the following trades: bricklaying, paving, roofing, sanitary and heating engineering work, carpentry, etc;
- b) Special classes for young foreign workers.

II. The contract of apprenticeship
=====

The contract of apprenticeship, concluded between the employer on the one hand and the apprentice and his legal representative on the other, brings into being a relationship designed to provide the apprentice with vocational education and instruction and is based on mutual trust. The contracting parties are bound by these principles, which are guiding principles for the whole period of apprenticeship.

1. The employer's obligations:

The employer undertakes, with regard to the apprentice:

- a) personally or through his nominee who has been made responsible for apprenticeship matters, to direct and supervise the vocational education and instruction of the apprentice in accordance with the standard apprenticeship programme approved by the Government;
- b) not to ask the apprentice to perform work or services foreign to the trade or the object of the contract or work harmful to the apprentice's health or beyond his physical capacity;
- c) to behave towards the apprentice as if he (the employer) were in loco parentis ("se conduire ... en bon père de famille"), to supervise the apprentice's conduct at work, to warn his parents or legal representative if he becomes ill, is absent, seriously misbehaves, gets into bad habits or for any other good reason;
- d) to grant the apprentice the statutory annual holiday;
- e) not to require the apprentice to work at home outside the statutory working hours;
- f) to release the apprentice for regular attendance at courses at technical college and other further training establishments and to ensure that the apprentice does in fact attend;
- g) to provide the apprentice, free of charge, at the beginning and during the course of the apprenticeship with the necessary apprenticeship books, to verify that they have been properly kept and to sign the entries made therein;

- h) to allow the apprentice sufficient free time to take the intermediate apprenticeship tests and to make available to him the tools and materials necessary for that purpose.

2. The apprentice's obligations

The apprentice undertakes, with regard to the employer and the employer's apprentice supervisor:

- a) to show trust, obedience and respect;
- b) to follow conscientiously the instructions given to him and to participate diligently, as far as he is able, in the work that must be done;
- c) to safeguard the interests of his employer and to observe the strictest discretion with regard to the firm's affairs;
- d) to attend courses regularly at the technical college and at other further training establishments and to submit the college certificates and work-books regularly to his employer;
- e) to observe strictly the firm's working hours and internal rules;
- f) to pay for any damage he causes deliberately or by gross negligence;
- g) to fill in the prescribed apprenticeship books carefully and to submit them regularly to the employer for signature;
- h) to take the intermediate apprenticeship tests organized in accordance with the recommendations of the Chamber of Trades and the Chamber of Labour.

3. Obligations of the legal representative

The apprentice's legal representative undertakes:

- a) to encourage the apprentice diligently to fulfil the duties imposed upon him by the contract of apprenticeship and to give him instructions accordingly;
- b) to give full support to the efforts of the employer, the technical college, the Chamber of Trades and the Chamber of Labour in the interest of the apprentice's training;
- c) to assume personal responsibility for all matters arising under the contract of apprenticeship if the apprentice is a minor.

4. Cancellation of the contract

The contract of apprenticeship may not be cancelled without prior notice from the parties, except during the probationary period of three months which is included in the period of apprenticeship.

5. Cessation of the contract

The contract of apprenticeship comes to an end:

- a) at the end of the month in which the apprentice passes the final apprenticeship examination or, if he fails that examination, does not present himself for it or is not accepted for it, at the end of the month in which he takes the next examination irrespective of whether he passes or fails it. In the latter case, the apprentice may enter into another contract of apprenticeship with a different employer.
- b) upon the death of the employer or his giving up the trade. Where the firm continues in existence under another proprietor or if the previous employer's widow or heirs keep it in being under the direction of a person recognized by the Chamber of Trades as being capable of fulfilling the duties of the contract of apprenticeship, the contract may then be renewed as between the new employer and the apprentice. If that happens, the contract must be supplemented within one month by an appropriate additional section to be signed by the new employer, which will be either the widow, the heirs or the person recognized as being competent for this purpose, and by the apprentice or his legal representative.
- c) if the employer or the apprentice is convicted of one of the offences specified in Article 5 of the Grand-Ducal decree of 8 October 1945.
- d) as a result of circumstances outside the parties' control (force majeure).

6. Termination of the contract

Notice of termination of the contract may be given:

- A) By the Chamber of Trades, in agreement with the Chamber of Labour, by notifying both parties:
 - a) if it is established that one or other of the parties has plainly failed

to fulfil the obligations placed upon him by the contract or the legal provisions;

- b) if the results of the intermediate apprenticeship tests show that the apprentice does not possess in adequate measure the skills required for exercise of the chosen profession;
- B) By one or other of the parties:
- a) if it is established that there has been serious and continued infringement of the conditions of the contract or of the statutory provisions, after measures to ameliorate the situation by the Chamber of Trades and the Chamber of Labour have proved unsuccessful;
 - b) if one of the parties has been sentenced to a punishment involving loss of civil rights;
 - c) if one of the parties changes his domicile in such a way as to make it impossible, for practical reasons, to continue the apprenticeship. In this case notice of termination may not be given until the month following the change of domicile.
- C) By the employer:
- a) if the apprentice commits an act of dishonesty or misconduct;
 - b) if it is found that the apprentice is incapable of learning the trade or profession which he has chosen - even after the probationary period;
 - c) if a doctor certifies that the apprentice is suffering from an offensive or contagious disease;
 - d) if a doctor certifies that the apprentice is no longer capable of following his chosen trade or profession as a result of an illness lasting more than three months or an accident;
 - e) on the death of the employer's wife if she has been providing the apprentice with board and lodging.
- D) By the apprentice or his legal representative:
- a) if a doctor certifies that the apprenticeship cannot be continued without harm to the apprentice's health;

- b) in the case of a girl apprentice, if she marries;
- c) on the death of the employer's wife or such other female member of his family who looks after the household, in the case of a girl apprentice lodging in the employer's house.

The period for giving notice of termination is 15 days.

In cases A-a, A-b, C-a, C-c, D-a and D-c above, the contract may be terminated without prior notice.

In cases B, C and D above, any notice of termination of the contract must first be submitted to the Chamber of Trades and Chamber of Labour for approval.

7. Extension of the contract

If, during the course of the apprenticeship, there appears to be good reason for prolonging the apprenticeship beyond the normal term of the contract, the Chamber of Trades, in agreement with the Chamber of Labour, may, if appropriate, grant an adequate extension to the duration of the contract if one or other of the parties so requests.

8. Change of employer

If, for reasons recognized as valid by the Chamber of Trades, the apprentice needs to change his employer while remaining in the same profession, continuation of the contract of apprenticeship is a matter to be decided upon between the new employer and the apprentice. Approval by the Chamber of Trades is nevertheless still required.

9. Change of trade

If, for reasons recognized as valid by the Chamber of Trades, the apprentice needs to change his trade, the Chamber of Trades may decide whether part of the apprenticeship period already served may be deducted from the normal apprenticeship period which is to be the subject of a new contract. If the change takes place within the same firm, it is sufficient for the existing contract to be supplemented by an additional section. Approval by the Chamber of Trades is nevertheless still required.

10. Breach of contract

Any breach of the contract of apprenticeship gives the right to damages, to be determined by the judicial authorities named in Article 20 of the Grand-Ducal decree of 8 October 1945.

11. Penal provisions

By virtue of Article 23 of the Grand-Ducal decree of 8 October 1945, warnings, reprimands, fines and withdrawal of the right to train apprentices may be imposed where there has been failure to fulfil the contractual obligations or to observe the statutory provisions.

The contract of apprenticeship must be concluded at the beginning of the apprenticeship, which includes the probationary period. It must be made out in quadruplicate and submitted by the employer to the Chamber of Trades for the purposes of verification and registration in the roll of apprentices. The first two copies are sent to the employer and the apprentice or his legal representative. The third copy is sent to the Chamber of Labour and the fourth copy is filed at the Chamber of Trades.

Any cancellation, cessation, termination, extension, change or breach of the contract of apprenticeship before it is due to expire must be notified to the Chamber of Trades. Any disputes which may arise from the contract of apprenticeship must be settled as specified in Article 20 of the Grand-Ducal decree of 8 October 1945.

12. End-of-apprenticeship examination

The apprenticeship ends with a final examination. These examinations are held twice a year and are based on rules and syllabuses drawn up by the relevant professional or trade associations (ie for the craft trades sector, by the Chamber of Trades and the Chamber of Labour; for the industrial sector, by the Chamber of Commerce and the Chamber of Labour; for the commercial sector, by the Chamber of Commerce and the Chamber of Private Employees) and approved by the Government. The examination consists of a practical part and a theoretical part. The practical tests, which also contain elements of professional theory, are organized separately for each trade by joint examination committees with equal government and professional representation appointed by the Govern-

ment on proposals from the professional bodies. The tests of general theory are held separately for apprentices from the craft trades, commerce and industry before committees composed of members of vocational teaching staffs. All the examinations take place under government control which is effected through the Government Commissioner for final apprenticeship examinations assisted by the Commissioner's Office for final apprenticeship examinations.

Success in the final apprenticeship examination tests as a whole is attested by the certificate of vocational aptitude (CAP). - Law of 8 October 1945 on apprenticeship, Articles 25 and 29.

13. Working hours for apprentices

A) Apprentices under the age of 18

(Laws of 28 October 1969 and 30 July 1972 on the protection of young workers)

a) Working hours per week and per day

In general, the time worked may not exceed 40 hours per week and eight hours per day (Art. 7).

A working day of a maximum of nine hours may be authorized by collective agreement or by the Labour Inspectorate on condition that the time worked per week does not exceed an average of 40 hours, calculated over a maximum period of four weeks (law of 30 July 1972).

During each period of seven days there must be a rest period of at least 44 consecutive hours, eg midday Saturday to 8 a.m. Monday, or 6 p.m. Saturday to 2 p.m. Monday. (Art. 9).

Attendance at school or college, provided it is obligatory, counts as working hours and is included in the aforementioned 40 hours (Art. 10).

b) Overtime

In general, overtime working is prohibited. In circumstances outside the firm's control (cases of force majeure) or where the existence or safety of the firm require it, overtime may be worked by way of exception but solely to avoid

serious disruption to the normal working of the firm. In such a case a communication must be sent to the Labour Inspectorate immediately, indicating the reasons for the overtime being worked; the Inspectorate will determine the period over which the overtime will be compensated for by a reduction in working hours (Art. 12).

The additional pay for overtime is 100% (Art. 13).

c) Working on Sundays and public holidays

Apprentices must not work on Sundays or public holidays. Where it is essential for reasons outside the firm's control (in cases of force majeure) or where the existence or safety of the firm require it, work may be done on Sundays or public holidays under the same conditions as those mentioned under "b) Overtime" above (Art. 14).

The additional pay for working on public holidays is 200% (Art. 15).

d) Night work

Young people may not work at night, ie from 8 p.m. to 6 a.m. In firms which operate continuously, they may work until 10 p.m. (Art. 16 of 28 October 1969 and Art. V of 30 July 1972).

e) Paid annual holidays

The paid annual holiday is fixed at 24 working days until the end of the year in which the apprentice attains the age of 18 years. The holiday must fall during the school holidays (Art. 17).

During that part of the school holidays after the apprentice's paid annual holiday has ended, attendance at school is replaced by attendance at the firm.

B) Apprentices over the age of 18

(Law of 9 December 1970 reducing and regulating working hours)

a) Working hours per week and per day

From 1 January 1975 the basic time worked may not exceed 40 hours per week and eight hours per day (Art. 4b).

When the week's work is spread over five days, normal working hours may be as much as nine hours per day but the total time worked per week must not exceed the limits stipulated (Art. 6).

Attendance at school or college, provided it is obligatory, counts as working hours and is included in the aforementioned 40 hours.

b) Overtime

Unless prior authorization has been obtained, overtime hours worked must remain within the following limits and the employer must submit a schedule of overtime worked to the Labour Inspectorate at least once a month (Art. 24):

Four hours per week from 1 January 1975 to 31 December 1976

Three hours per week from 1 January 1977 to 31 December 1977

Two hours per week from 1 January 1978 to 31 December 1978

One hour per week from 1 January 1979 to 31 December 1979.

Further overtime may not be worked except in exceptional circumstances and prior authorization must be obtained from the Ministry of Labour (Art. 12).

The additional pay for overtime is 25% (Art. 16).

c) Working on Sundays and public holidays

There are no legal provisions concerning additional pay for Sunday working. If collective agreements are in existence, the additional pay laid down in those

agreements is valid for the trades in question.

If the special circumstances of the firm require work to be done on a public holiday, the additional pay is 100% (Art. 3 of the Grand-Ducal decree of 8 August 1947 on statutory public holidays).

d) Night work

There are no legal provisions governing night work, except in the case of bakers. If collective agreements are in existence, the additional pay laid down in those agreements is valid for the trades in question.

e) Paid annual holidays

The paid annual holiday is fixed at 24 working days from the age of 19 up to the age of 30. The paid annual holiday must fall during the school holidays.

During that part of the school holidays after the apprentice's paid annual holiday has ended, attendance at school is replaced by attendance at the firm.

14. Apprenticeship allowances

(Ministerial regulation of 26 March 1973 fixing apprenticeship allowances for the craft trades)

The minimum apprenticeship allowances payable by craftsman-employers to their apprentices vary according to: the particular trade, the age of the apprentice, the educational level of the apprentice, the age of entry into apprenticeship, the year of apprenticeship and the six-monthly average of the weighted consumer price index.

For apprentices entering apprenticeship at the age of 15 who have successfully completed the full ninth year of vocational or technical education, allowances for the different apprenticeship years are determined from 1 March 1973, as shown in the annexed table, at 194.60 on the weighted consumer price index.

For apprentices entering apprenticeship at the age of 15 who have failed or not attended the full ninth year of vocational or technical education, the allowances are identical to those mentioned above apart from the allowances for the first six months of apprenticeship.

For apprentices entering apprenticeship at the age of 16, 17 or 18, the allowances are increased by 5% for each year by which the apprentice exceeds the age of 15.

For apprentices entering apprenticeship at the age of 16 or 17 who have passed the tenth and eleventh full years of vocational or technical education, the allowances payable are those for the second and third year of apprenticeship respectively.

Where the apprenticeship contract is extended, under the provisions of Articles 15 or 17 of the Grand-Ducal decree of 8 October 1945 on apprenticeship, the allowances payable during the extension period are those of the final apprenticeship year increased by 5%.

In the trades for which apprenticeship allowances are laid down in a collective agreement the above-mentioned criteria also apply.

15. Training programme for apprentices

The Chamber of Trades forwards a copy of the training programme to the apprentice, together with his copy of the contract of apprenticeship which has been duly registered in the roll of apprentices. The employer also receives a copy. In this way the contracting parties know the route to be followed during the apprenticeship.

16. Attendance at day-release courses at the technical college

- a) The employer and the apprentice's legal representative undertake to ensure that the apprentice regularly attends the compulsory day-release courses at the technical college. If the apprentice has to be absent from a class, the employer or the legal representative must obtain permission for this in advance from the school authorities. In the case of sickness a medical certificate must be produced.
- b) Absence without leave can have unfortunate consequences for the apprentice. If he is absent without leave for between 2% and 4% of the total annual school hours, his attendance is not considered to be regular and he may be refused permission to take the final apprenticeship examination. If that happens, the contract of apprenticeship will be extended for six months.

17. School reports

- a) The apprentice is required to present his school reports regularly to his employer and his legal representative for their information; they must sign the reports.
- b) It is the duty of the employer and the legal representative to examine and sign the apprentice's school reports, thus keeping themselves informed of the progress or otherwise of his studies and enabling them to apply corrective measures by common agreement, should this prove necessary.

18. Apprenticeship book, intermediate test, final examination

- a) Together with the copy of the contract of apprenticeship which has been registered in the roll of apprentices, the Chamber of Trades forwards to the employer the apprenticeship book, which must be kept up to date by the apprentice. In this apprenticeship book the apprentice must make regular entries, under the supervision of the employer, in the form of reports or

drawings relating to the professional knowledge he has acquired at the firm.

- b) The employer certifies, by signing the book, that he has regularly examined the entries.
- c) The apprenticeship book must be presented to the technical college on demand.
- d) The apprenticeship book must be presented to the examination committees on the occasion of the intermediate tests held during the apprenticeship period and at the final apprenticeship examinations.
- e) If the apprentice has scored insufficient marks in the intermediate test or has failed the practical part of the final apprenticeship examination, the apprenticeship book has an important part to play because it may enable the causes for the poor results to be discovered. Besides this, the fact that an apprenticeship book has been regularly and properly kept may have a positive influence on the examination result.

19. Contact between the employer and the apprentice's parents

It is the duty of the employer to maintain regular contact with the apprentice's parents and to keep them informed about the conduct of their son or daughter, about his or her performance at work and professional progress.

A similar duty falls on the parents. They should show the interest they have in their child's training and advancement by keeping in regular contact with the employer.

An exchange of views of this kind between employer and parents should certainly not be regarded as a waste of time. Experience proves that its effects can only be very useful and beneficial for the apprentice.

III. Vocational guidance

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Advice on careers and educational matters for young apprentices in Luxembourg is provided by two official bodies which work closely together:

- a) the vocational guidance service of the Department of Employment (the Vocational Guidance Office);
- b) the educational guidance service of the Ministry of Education.

A. The vocational guidance service of the Department of Employment

It is the duty of the Department of Employment:

- 1) to exercise the functions of placement and guidance given to the National Labour Office by the legislation on apprenticeship;
- 2) in general, to make a study of careers in Luxembourg and to advise young people as to which careers correspond to their particular skills as determined beforehand by scientific methods and on the basis of school and medical record cards;
- 3) to examine the aptitude of aspiring entrants to given trades or professions, either on request from an employer or on request from the young person himself or from his parents;
- 4) to study and observe the employment market, with reference particularly to young people and future manpower requirements and to give directions to young people in the light of probable future trends in the employment market.

The Vocational Guidance Office also has the duty of periodically publishing a bulletin of trades and professions in the Grand Duchy, maintaining appropriate contacts with the trade and professional organizations, schools and colleges, and government authorities, and establishing contacts with vocational guidance offices in other countries.

Besides the tasks assigned to the Vocational Guidance Office, there are also certain obligations incumbent on those who make use of the service. Thus candidates for vocational training in the craft, commercial or industrial sectors must first present themselves to the Office, ie before entering apprenticeship.

For this category of young people vocational guidance is therefore obligatory. As for the employer, he is obliged by law to approach the Vocational Guidance Office, which will submit for his selection candidates for apprenticeship who have already been examined with regard to their aptitude. The obligation on candidates for apprenticeship to present themselves to the Vocational Guidance Office in no way detracts from their freedom to choose their own career.

The characteristic features of our system of vocational guidance are thus, firstly, the fact that it is an integral part of the National Labour Office and, secondly, the fact that candidates wishing to undergo regular vocational training must consult the Vocational Guidance Office which, by giving them appropriate advice, also ensures that they are placed in an apprenticeship.

The legislative provisions governing our Vocational Guidance Office do not, however, neglect to take into account the applicant's personality. They place the emphasis on aptitudes and this, in its wider sense, means likes and dislikes, special interests, skills and inadequacies.

Moreover, it has been recognized that vocational guidance is a continuing process and a team effort and this is borne out by the relationship which is maintained with schools and colleges and by the use by the Vocational Guidance Office of the available scholastic and medical data.

Finally, the importance attached to documentation, to vocational information and to the building up of vocational information on an international scientific basis is reflected in our legislation.

Although candidates seeking vocational training are by far the largest category of people making use of the vocational guidance service, the service is nevertheless available to everybody irrespective of training or education.

Organization of the vocational guidance service

The administrative and technical machinery consists of:

- a. the Luxembourg centre;
- b. the Esch-sur-Alzette centre;
- c. the Diekirch centre.

The Luxembourg and Esch centres function on a full-time basis. The Diekirch centre is open to the public on Monday, Wednesday and Thursday mornings. Each of these centres possesses a psycho-technical laboratory.

There are also seven other centres throughout the country which are served by a travelling guidance officer who visits them one day a week; this enables the rural districts to be covered. These centres also have equipment for testing.

The vocational guidance service is a public service financed from funds allocated to it under the national budget.

There is no private vocational guidance service in Luxembourg.

Staff of the guidance service

Status: the staff, which consists of eight persons, have the status of officials and employees of the State.

Training and qualifications: the managing inspector must possess a degree from a vocational guidance college or in applied psychology, representing the final qualification obtained at the end of a single and complete course of at least two years of study.

The qualified guidance officer must have the same qualification.

No special training is demanded of the ordinary guidance officers. They receive their training on courses at guidance centres in France, Belgium and the Federal Republic of Germany.

Content and presentation of the information

Since information is of prime importance in that it is necessary to be well informed to be able to give advice or make a decision on a career, our vocational guidance service has been made responsible for keeping this vital information. The information can be divided into two aspects, collective and individual. The best method to use is one in which the two types of information follow each other in sequence.

The collective information was gathered over a period of more than ten years by the vocational guidance service of the National Labour Office on its own, at evening vocational information sessions. These sessions were held during October to May in each academic year in the principal localities in the country. The aim was to help pupils in the final primary year, in the additional primary years and young people in general, as well as their parents, teachers and educationalists by giving them initial information on careers with the help of audio-visual aids.

Explanatory notes describing the organization of the vocational guidance service, the ways it can be of use and the subsidiary services it provides are given out. The notes stress the importance of the choice of career and the necessity of adapting to the rapid structural changes that are taking place in industrial society by obtaining a sound general and vocational education.

Colour slides show some of the wide range of vocations open. Each slide is accompanied by a short commentary on the trade or profession, the requirements for entry, length of the training period, future prospects, etc.

The information is completed by a film about working life which stresses the importance of a sound choice of career.

The session comes to an end with the distribution of a leaflet containing advice, listing the principal professions and careers, the training required for them and other useful and indeed essential information, followed by discussion of questions raised by members of the audience.

For many years these evening information sessions were organized by the vocational guidance service completely unaided. However, since the beginning of last academic year they have been organized jointly by the vocational guidance service of the National Labour Office and by the vocational guidance department of the Ministry of Education.

Attached to the Luxembourg vocational guidance centre for about twenty years has been an office of the regional centre of the University Bureau for Scholastic and Vocational Statistics and Documentation of the Academy of Nancy (the "BUS"), which in 1970 became the National Information Office on Education and Careers ("ONISEP"). This office regularly sends us important documentation on problems connected with education and careers, which is of particular interest to students undergoing advanced training. Every year the regional centre of the Academy of Nancy, in conjunction with the Vocational Guidance Office, organizes a public conference on some topical problem to do with either training or a particular trade or profession or group of trades or professions.

The information, which has originated in collective form outside the guidance centres, continues to be gathered on an individual basis within the centres when people visit them for guidance purposes.

Contents of the guidance

a) Collective action in schools (including information sessions)

Although there is as yet no systematic provision of careers advice in schools, relations between the Vocational Guidance Office and the schools are fairly fruitful. Quite a number of schoolteachers personally take their pupils to vocational guidance centres. The teaching staff are present at the evening vocational information sessions. Finally, several teachers invite

careers counsellors to give career information and guidance sessions in the classroom.

The Vocational Guidance Office also participates by setting written tests which form part of the entrance examinations for the College of Arts and Trades, the College of Hotel-Keeping, and the apprenticeship centres of the iron and steel industry, the railways and the Association of Master Printers.

b) Individual counselling

The guidance officer interviews the young person who is seeking advice either in the choice of a branch of education or in the choice of a career. He will try to assemble information about the applicant's family, school and medical background. He has a long talk with the young person and usually also with his parents. He listens; if necessary, he uses tests to assess those aspects of the young person's personality which lend themselves to measurement. After this individual interview, the officer will be able to tell the applicant and his family the main lines which his future education or career should follow. The advice may be changed later if events prove it to have been inappropriate or if new facts concerning the young person or his family come to light.

Basically, professional guidance merely provides a beginning, a starting-point. The dialogue which takes place between the counsellor and the young person should leave the latter sufficiently clear in his mind and free to assimilate, by his own reflexion and research, the objective and public information he has received about himself and about the world of work.

If the applicant is an apprentice, it is the counsellor himself who knows about vacant apprenticeship posts, who studies the placement and who, knowing the firm and the working environment, places the apprentice in a firm which is most suited to his personality.

c) Extent of utilization of the service:

i) measured by the characteristics of those using it:

80% of those using it are candidates for apprenticeship in craft trades, commerce or industry (technical college or firm);

15% consist of various categories of young people, notably pupils from lower classes of the general secondary and intermediate education sectors;

5% are young people intending to go on to advanced studies.

ii) measured by the total number of those using it:

Between 3000 and 3500 every year.

iii) measured by the percentage of pupils using the service at the end of their schooling:

About 30% of total school-leavers, including almost all school-leavers from the vocational education sector.

Recent developments and anticipated developments

In order that vocational guidance should be more effective both at the level of the individual - by "assisting the development of all the potentialities of each individual" - and at the level of the community as a whole - by ascertaining the needs of society and the functions which the individual ought to fulfil in society - it is necessary that the basis of its operations should be broadened.

Closer and closer co-operation with all the authorities responsible for educating and training young people and ensuring that they are equipped for adult life must be considered of prime importance.

An important step in this direction was taken when a ministerial decree set up a commission of representatives of the Ministry of Education (educational guidance department) and of the National Labour Office (vocational guidance service) for the purpose of examining certain aspects of the situation and in

particular "to co-ordinate the work of documentation, information and guidance and to harmonize the working methods of the two services".

The first outcome of that collaboration was the joint organization of sessions to provide educational and vocational information to young people and their parents. The educational guidance service provides information on schools, colleges and training opportunities, while the vocational guidance service handles problems relating to trades and professions and the world of work.

With regard to collaboration in other fields, the following measures were envisaged:

1. Documentation - The educational guidance service will provide the vocational guidance service with every item of information on general, technical and vocational education which could be relevant to advice about vocational matters.

The vocational guidance service will provide the educational guidance service with all available information on the situation on the employment market concerning adult workers as well as young ones, on entry into apprenticeship and on trends in trades and professions.

In order that this exchange of information and documentation should be as effective as possible, it is essential that the facts should be forwarded with the minimum of delay, ie the moment they become available.

In addition, direct and continuous contact between officials in the two services has been established.

2. Individual guidance - Co-operation between educational guidance and vocational guidance will be effected in the following manner:

a) The bodies responsible for educational guidance in the various educational sectors will advise pupils with career problems and also pupils under 16 who are leaving school to approach the vocational guidance service to obtain vocational advice or advice about a different career.

b) The vocational guidance service will assist the educational guidance service and in particular the Centre for Psychology and Educational Guidance, the establishment of which was provided for in the law of 16 August 1965, by collaborating on every individual case which calls for advice on matters of vocational information and guidance.

3. Harmonization of working methods - At a later stage the two services intend to co-operate closely on research in the following guidance spheres: methodology, forecasting, planning, testing (drafting and standardization), analysis of trades and professions, monographs on individual trades and professions, provision of information to teachers, training of information officers, etc.

B. The Department of Educational Guidance and Social Services (DOSS) in the Ministry of Education

The best way to sum up all aspects of the activities of the Department of Educational Guidance and Social Services and of the educational psychology and guidance service would be to say that they constitute "psycho-pedagogic and social guidance".

The word "guidance", which is borrowed from English, has a wider meaning than the French word "orientation". It signifies the provision, in a coherent and continuous manner, of advice (from all points of view: scholastic, educational, psychological) as to a young person's education. This form of guidance must take account of the educational, psychological and social aspects of the problem. It can take place properly only if there is close contact with the schools and if the educational psychology and guidance services have been well integrated into the various schools.

There will have to be a regional grouping of heads of educational psychology and guidance services and similar services (medico-psycho-pedagogic) working at the level of primary education in order to ensure that there is a permanent guidance system extending from pre-school education to the end of post-primary education.

Guidance will be given by instituting a dialogue: dialogue with parents and dialogue with children.

The scope of such guidance will expand if, and as far as, close collaboration can be established, over and above the link with primary education, with all the public and private guidance and assistance bodies operating both at national level and on regional and local levels.

The Department of Educational Guidance and Social Services follows the three main lines indicated above, that is to say it supplies information, it gives psycho-educational guidance and it provides social aid. In so doing it enables the individual pupil to make a conscious decision as to the path he should follow in relation to educational requirements and the needs of society by equating his interests and capacities with the standards governing the educational and economic systems as a whole.

With this aim in view, the Department of Educational Guidance and Social Services is preparing the institutionalization of psycho-educational and social guidance by drafting a bill to that effect. The bill is intended to define the fields of activity of the educational psychology and guidance services (SPOS) in post-school teaching establishments and to lay down regulations covering collaboration with all the bodies involved. The bill will also introduce staff regulations for the psychologists, teachers and administrative staff working for the institute and for the educational psychology and guidance services. A fact that becomes strikingly apparent immediately one starts to analyse the present activities of the Department of Educational Guidance and Social Services is that continuation, development and expansion of the department's work will require an increase in its staff, equipment and funds. With the help of the recent law establishing a Department of Employment and the bill just mentioned, it will now be possible for the information and educational and vocational guidance office referred to in the Government's declaration of 4 July 1974 to be brought into being.

C. Criticisms and proposals

At their most recent meetings the members of the conference of heads of establishments and authorities responsible for guidance and vocational training in the craft trades, in response to the Government's concern about youth employment, examined ways and means of providing more and better information to pupils living in the Grand Duchy of Luxembourg on the vocational training and promotion opportunities open to them in our country in the craft trades, ie in a host of professions based mainly on skilled manual work.

The conference came to a unanimous conclusion on the following points, which it passed on to the Government, so that the latter could take account of them, especially in its preparatory work on the national budget.

The conference took the view that:

- 1) the employment difficulties currently encountered by some categories of young people should cause the authorities to draw the attention of school-children, particularly in the final years of compulsory education, to the job and promotion opportunities open to them in those craft trades which are based mainly on skilled manual work;
- 2) it should not be too difficult to secure stability of employment in the craft trades, owing to the fact that in the past these trades have been forced to rely to a large extent on recruiting foreign labour with insufficient skills for the jobs to be done;
- 3) natural and progressive replacement of migrant workers with young skilled workers trained in our own country would have the effect of improving the structure of the employment market and hence the socio-economic equilibrium of our society;

- 4) with this aim in view, measures to provide information and guidance should be taken as a matter of priority; these measures should take the form more particularly of exhibitions, both at national level at the Luxembourg International Fair and at regional level in the relevant schools;
- 5) implementation of the information and guidance measures should take place with close collaboration between the government authorities and establishments responsible and the professional associations affected and should be supported by financial resources proportionate to the importance of the objective in view.

IV. The training programmes

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Article 11 of the decree-law of 8 October 1945 amending the apprenticeship law of 5 January 1929 states:

"The employer shall provide education and vocational training for the apprentice within the framework of a standard apprenticeship programme approved by the Government and drawn up for each profession or branch of a profession by the relevant employers' association in agreement with the professional association responsible for the apprentice."

The preparation of programmes of theoretical training, by contrast, is the responsibility of the Ministry of Education.

In fact, working parties composed of delegates from the professional associations and the Ministry of Education and chaired by a delegate from the Ministry of Education prepare draft programmes which are adopted in plenary session by the professional associations and finally approved by the Minister of Education.

V. The craft sector

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A. Preliminary considerations

Vocational training, which plays an essential part in maintaining the flow of labour into the craft sector and hence in ensuring the survival of small and medium-sized firms, is the subject of active concern on the part of all those involved, on the government side as well as on the professional side. Improvements are constantly being made to the apprenticeship system.

All told, the craft sector in Luxembourg covers about 4500 firms employing some 27 000 people, or 18% of the country's working population.

B. Craft apprenticeship

Certain special considerations and certain aspects specific to craft apprenticeship must be borne in mind if a correct assessment of the situation is to be made and if errors in determining lines of conduct or setting up systems of vocational training are to be avoided.

The craft sector is multifarious in nature, with a great number of crafts undergoing continuous change and grouped according to technological affinities or the functions which they fulfil on the market. Furthermore, within these trades there are different categories of firm: larger or smaller, with a greater or lesser degree of specialization or mechanization, and employing workers with a greater or lesser degree of skill.

The result of this is on the one hand some specific needs which a suitable system of training must meet and, on the other hand, a relatively wide spread of apprenticeship opportunities which the craft sector throughout the country can offer to young people because of this diversity.

This diversity also explains the different attitudes shown by crafts and firms with regard to vocational training in general and apprenticeship in the firm and training at college in particular.

This is why it can happen that in a given trade a firm that is well-equipped, specializes in a relatively limited field of activity and employs only a small number of highly qualified workers may feel no need to train craftsmen on the basis of a contract of apprenticeship but will instead try to train up ordinary skilled workers, whereas another firm in the same trade but having a wider and more varied range of production or services and aiming at a more discriminating clientele will recognize the need for highly-qualified labour and will therefore be prepared to train apprentices on the basis of a contract of apprenticeship.

It is this diversity, too, a diversity peculiar to the craft sector, which no doubt accounts for the variations in views held in the professional associations and in the trade itself as to the amount of academic teaching that there should be in vocational training and as to the choice between apprenticeship in a firm or complete training at technical college.

In some trades there is insistence on the predominance of practical training in the craft firm, the firms holding the view that they are in a position to give the best practical training, and that this practical training should then be supplemented by the teaching of theoretical knowledge at college. In other trades, by contrast, there is a preference for an academic basic vocational training, containing the beginnings of practical work, followed by apprenticeship in a firm on the basis of a shorter contract. Examples of trades in the first category are hairdressing and the food trade, and of trades in the second category motor mechanics, electrical work and joinery, for which the length and scope of full-time vocational teaching have been extended in recent years.

It would therefore be inappropriate when determining the structure and methods of training to be applied to the craft sector, to aim to establish a strictly identical system for all trades, just as it would be unwise to argue in absolute or exclusive terms either for full-time training in college on the one hand or for training in the firm with no academic teaching on the other.

Maintaining diversity in the systems and methods of training is the best way we can offer young people real chances of success in accordance with their wishes and their aptitudes and can respond to the realities of the employment market and the country's economic structure.

In comparison with other economic sectors, the craft sector as a whole requires a relatively large number of skilled workers, both employed and self-employed, without whom the sector would be unable to fulfil its functions and would find it impossible to develop normally.

It must be emphasized that craft training does not aim solely at the level of the certificate of vocational aptitude (CAP), a qualification which gives the holder a status recognized in all sectors of the economy. It goes beyond this level to a second stage, that of advanced training up to the level of mastership. The craft sector thus has good reason to support, at apprenticeship level, all efforts directed at establishing a training system which enables young people to attain a high level of theoretical and practical knowledge. Nevertheless, this level must correspond both to the diverse aptitudes of young people and to the varying requirements of the firms themselves. So the basic training must make it possible for the holder of the CAP subsequently to obtain the master's certificate, the standard of which is tending to rise from year to year, without too much difficulty. We should point out in this connexion that despite the many obstacles which they have to overcome the number of CAP

craftsmen currently following preparatory courses prior to taking the mastership examination is impressive (861 in 1975, as against 665 in 1971, 693 in 1972 and 810 in 1973).

Another special feature which ought to be mentioned in connexion with the role of craft apprenticeship is the fact that many craftsmen trained in craft firms are working in other sectors of the economy, both private and public, and that their contribution to the success of many industrial firms and to the functioning of the State-owned firms is far from negligible.

Present situation of vocational training

Generally speaking, one can say that the present system of training in use in the craft sector takes account, to a fairly large extent, of aspects specific to craft firms as well as of the varied aspirations and aptitudes of the young people wishing to learn a trade.

There are several stages in the school system in which there is preparation for working life as a tradesman or craftsman:

After the sixth year of primary schooling, children who have passed the admission examination join a foundation class, the "seventh year common" ("septième commune"), a year for which the curriculum is in principle identical for the technical and vocational sector on the one hand and the intermediate sector on the other but which differs in the secondary sector.

The eighth year is an "educational orientation" year, offering pupils several options: technical, economic, vocational.

The ninth school year in the technical and vocational schools takes the form of "polyvalent vocational orientation classes", which combine general education with theoretical courses and joint introductory practical courses in certain groups of trades.

These courses thus offer children of 13 and upwards a relatively varied education which takes account of their aptitudes and their future working lives and helps them to choose the directions which their education and vocation will take.

It should be remembered that the pupils who do not go through this preparatory stage generally go through the additional primary stage, which covers the seventh, eighth and ninth years, and then start on one of the vocational training roads. A number of apprentices, however, come up through other scholastic systems, such as the intermediate or secondary high schools (lycées), and find it difficult to adapt to the new regime owing to the differences in curricula. A greater co-ordination of the curricula laid down for this stage of education is therefore essential.

As for craft training proper - on top of the preparatory stage in schools which we have just been discussing - this consists of several avenues, including in particular:

- a. that of full-time technical education (College of Arts and Trades), which is confined to a limited number of professions;
- b. that of apprenticeship in a firm, accompanied by day-release classes at a technical college.

In some trades this on-the-job training may be preceded by a period of full-time vocational education lasting one or two years.

The methods of apprenticeship

----- The professional system

To increase the chances of success of candidates approaching their working life by way of this improved apprenticeship road, which is called the "professional system" ("régime professionnel") and to ensure that there is greater homogeneity of knowledge and skills in the young apprentices starting their calling - young people who could be called by the more modern name of "trainee-

craftsmen" - candidates must have successfully completed the ninth ("pre-training") year at a vocational education centre or technical school; if they have not done so they are required to take a grading examination. This examination gives a chance to pupils who have failed to pass their school year or who come from a different teaching sector the curriculum of which did not cater for their chosen career (eg the additional-primary, intermediate or secondary systems).

Trainee-craftsmen under apprenticeship contracts undergo an apprenticeship of 40 hours per week for two-and-a-half or three years according to the trade chosen; this 40 hours per week includes day-release vocational classes amounting on average to seven hours per week. In some of the more technically specialized trades apprentices are even permitted to attend full-time courses in schools or colleges for one year (electrical work, motor mechanics) or two years (radio, television and telephone electrical work). If they opt for this alternative they qualify for a corresponding reduction in the duration of their apprenticeship. But young people who have passed neither their ninth "pre-training" year nor their grading examination can still start apprenticeship at the age of 15 - on two conditions. They must serve a six months' longer apprenticeship period and they must attend, and pass, day-release catch-up classes during their first year and then go on to further day-release classes. (In this way they do not have to re-sit their ninth year; they already receive an apprenticeship allowance and are fully integrated into working life while enjoying the benefit of special professional status.)

The "professional system" of apprenticeship prepares apprentices for the final apprenticeship examination, which consists of three parts: general theory, vocational theory and practical tests. The way the examination is organized has become much more flexible. All apprentices who have passed their ninth "pre-training" year or their grading examination are excused part of the general theory section. The vocational theory section may be passed by taking a residual examination covering the subject-matter taught in the

final year of the day-release classes. Apprentices who fail to pass a year-end examination in the classroom part of their training have to serve a longer apprenticeship as a result of their failure if they wish to obtain the CAP. The form of vocational education and the final apprenticeship examination is thus made more flexible and at the same time the content is reinforced.

The practical system

To ensure arrival at the desired destination without too much human or professional "wastage" a second training route has been instituted. It branches off from the first road; the separation occurs at the earliest after the first year of apprenticeship. This second road, known as the "practical system" ("régime pratique") and not open to certain very technical trades, prepares apprentices for a "certificate of manual ability" (certificat de capacité manuelle - CCM) which is awarded to candidates who have not obtained their CAP after two attempts but who have gained sufficiently high marks in the practical test. It is a procedure designed to cover apprentices who fail to achieve adequate results in the day-release courses of the "professional system" but who have given proof of sufficient practical and intellectual skills to enable them to reach the level at which they can be considered to be skilled craftsmen. To this end they, too, attend day-release classes at the educational centre during their years of apprenticeship under the "practical system", but these classes are characterized by special theoretical teaching which is closely allied to practice; at the end of the apprenticeship they take the same practical section of the final examination as candidates for the CAP, with just one difference: they are examined orally on matters of professional theory whereas their colleagues trying for the CAP must pass a written examination on these matters, based on a wider syllabus.

One can therefore say that as far as manual skills go the CCM represents the same level of attainment as the CAP. Out of concern to allay the anxieties of those who fear the emergence of slovenliness and lack of professional zeal in young craftsmen, we have delayed the right to opt for the "practical system" until after the first year of apprenticeship, ie until failure in the day-release courses of the first year of the "professional system". From the point of view of the school or college, the "practical system" of apprenticeship calls for additional efforts because the said school or college is obliged to organize special courses using methods linked more directly with actual practice. Conversely the same schools or colleges benefit by having a better selected and therefore more homogeneous intake for their day-release classes in the "professional system" - something they have long hoped for - and this enables them to raise the academic standard appreciably. We should add, in conclusion, that it is open to holders of the CCM to attend adult education courses at a later stage which will prepare them for the general theory and professional theory sections of the CAP examination.

In Luxembourg, as in other countries, craft apprenticeship has attracted a number of criticisms. We shall not examine them in detail here. Suffice it to say that provided such criticisms are made in a constructive and realistic spirit they should be taken seriously. The craft sector has given proof that it is willing to make changes and improvements in the apprenticeship system provided that, firstly, the changes and reforms envisaged guarantee sufficient recruitment of young people not only into a few fashionable professions but into all the trades of which our economy has need and, secondly, the changes genuinely lead to a better preparation for working life.

In the presence of criticisms on one side and the effects of constant improvements on the other, it will be appropriate to draw attention to certain characteristic features of craft apprenticeship.

Craft apprenticeship does not take place within a system that is rigidly fixed over the long term as is sometimes the case with school systems. It is based on outline programmes (currently being revised) which lay down progressive training half-year by half-year. Owing to the fact that the master is allowed sufficient latitude, the craft apprenticeship enables practical knowledge and skills to be continually and rapidly adapted to reality and to the exigencies of the trade which make themselves felt first at firm level.

Apprentices receive a measure of encouragement from the apprenticeship allowance which has been appreciably raised and which - as far as possible and with variations from trade to trade - is geared to the minimum social wage. On the other hand the expenses of training borne by the apprentice or his parents have been reduced to a minimum thanks to the geographical dispersion of craft firms and this means that the apprentice does not need to leave home and suffer the inconvenience of long journeys. The advantage of living at home will continue, however, only so long as a sensible policy enables craft firms to operate in all the regions of our country.

Compared with in-school training, craft apprenticeship is certainly very advantageous from the point of view of the financial burden falling on the State for equipping and operating a system to provide training in all craft trades, both the popular and the less popular. If one examines the national budget and considers the experience gained from the creation of new 9th, 10th and 11th year classes in recent years, one can get an idea of the substantial funds which have to be made available apart from the assistance of the firms training the apprentices. Moreover, firms are increasingly claiming that the

charges they have to bear as a result of training apprentices are rising disproportionately. The present selective apprenticeship premiums granted to firms training apprentices under the outline law on small firms and trades have not significantly reduced those charges.

It should be noted in this connexion that in addition to the fairly high employers' contribution, firms registered with the Chamber of Trades have to pay a special training levy whether or not they train apprentices.

Of course, there are irregularities and abuses in craft apprenticeship as there are no doubt in other education systems. All that can be done is to try to keep the imperfections to a minimum. In recent years the two professional bodies responsible for craft apprenticeship have introduced, on the basis of the powers given to them by law, a system designed to support and control apprenticeship in firms; this system works at several levels and cannot fail to have some effect. The system provides for:

- a. the preparation of detailed new apprenticeship programmes
- b. the provision of more information to apprentices and masters
- c. the introduction of an apprenticeship book, the keeping of which is checked in collaboration with the technical colleges;
- d. the creation of an apprenticeship counselling service with the twofold task firstly of counselling apprentices and masters and secondly of monitoring apprenticeship in craft firms;
- e. the organization of intermediate tests to be taken after the first year of apprenticeship in a firm and designed to monitor the progress of apprentices in all trades in the craft sector; the taking of measures made necessary by the results of these tests;

- f. the setting up of a "disputes committee" where special cases are dealt with by representatives from the two professional bodies concerned, together with a representative of the technical college involved if necessary.

It should be noted that the institutions directly responsible for craft apprenticeship are the Chamber of Trades and the Chamber of Labour. These two bodies, both public-law institutions, try to pursue an open and effective policy in the sphere of vocational training. For this purpose they work closely with the technical colleges, the vocational guidance service, those responsible for additional primary education and, of course, the relevant departments of the Ministry of Education. Regular contact with these different authorities has eventually produced a climate of objectivity and trust which is conducive to the solution of problems and the implementation of realistic initiatives (eg the introduction of the CCM system).

It should also be noted that the number of apprentices that can be taken on under contract at the same time by a craft firm is strictly regulated, with the result that young people do not usually have any difficulty finding a job at the end of their training.

C. Criticisms of and proposals concerning craft apprenticeship by the Chamber of Trades

- i. Certain measures designed to upgrade vocational training in general and apprenticeship in craft trades in particular must be taken, at different levels but in a co-ordinated fashion.
- ii. There must be special efforts to mount an intensive campaign to provide information to young people, their parents and the teaching profession. Educational and vocational guidance must come into play at the various levels of schooling.
- iii. Opportunities of access to vocational training for the children of immigrant workers must be increased.

- iv. The different types of education undergone by children of 12 to 15 must continue to be co-ordinated and brought closer together with a view to the eventual integration, to a greater or lesser degree, of all the systems in a coherent, though differentiated, whole.
- v. The "polyvalent orientation" classes must provide genuine educational or vocational guidance according to the aptitudes and aspirations of the pupils and must not be allowed merely to tick over because of unsuitable curricula. Above all, the polyvalent syllabuses must use a modern idea of general theory that is better suited to reality and to present social and cultural conditions and must not neglect those branches of teaching which are likely to facilitate access to vocational training.
- vi. With regard to craft apprenticeship proper, there must be continued improvement based on the lengthy joint preparatory work (by representatives of the Ministry of Education in conjunction with representatives of the Chamber of Trades and the Chamber of Labour, the representative of the Office of Vocational Training, the principals of the technical colleges, a representative from the additional primary education sector and an observer from the Chamber of Commerce), combined with consolidation of the law in order to give full legal force to the important reforms introduced experimentally a few years ago, such as:
 - . harmonious linking of the educational orientation stage with technical and vocational education; regulated training in the firm by means of the contract of apprenticeship;
 - . two-tier training systems in several professions, eg the "professional system" leading to the CAF and the "practical system" leading to the CCM;

- . using the results of the final year of the orientation stage (the ninth-year classes) to determine both the general theoretical subjects to be adopted for the general theory section of the final apprenticeship examination and the subjects under the headings professional theory and practical work to be considered in deciding the length of the apprenticeship and whether the apprentice is to take the "professional system" or the "practical system";
- . making the results obtained on the day-release courses count in promotion and the final apprenticeship examination in the "professional system";
- . perfecting the day-release courses in the "practical system";
- . the creation of full-time in-school training classes in the more technically specialized trades, after the orientation stage and as dictated by economic factors, followed by training by the employer in consequence is for a shorter time;
- . increasing the chances of success by means of catch-up courses offered to anyone interested, either during their spare time (eg on the general theory section of the final examination at adult education classes) or during working hours where there is an extension of the apprenticeship period;
- . finding a better way of organizing day-release education in trades which attract very few apprentices, if necessary by the introduction of grouped courses ("Blockkurse") or subsidized correspondence courses or, as another alternative, by sending apprentices for a certain time to schools abroad which put on supplementary courses of this kind;
- . by developing the assistance that can be given and the control that can be exercised by the apprenticeship counsellor, whose task is to increase the chances of success of all apprentices by continual monitoring of training in firms and by advising, encouraging or if necessary even penalizing.

The counsellor's role should be paralleled in the technical college by the creation of a guidance committee composed of representatives from the college and the vocational guidance service, a doctor and the apprenticeship counsellor, to give guidance to apprentices having difficulties at college.

Besides these measures - and our list is not exhaustive - those responsible for vocational training must dispel as rapidly as possible the doubt that is entertained as to the usefulness of the training given by firms under official regulations; if this is not done, the discouragement that is already felt in many trades as a result of the increasing obligations and charges imposed is likely to grow stronger and could eventually remove from our young people and from society this nursery of trainers who have done so much for the harmonious development of our people and our economy.

List of craft trades

1) FOOD

baker - pastrycook
pastrycook - confectioner - ice-cream maker
miller
caterer-cook
butcher - pork butcher

2) CLOTHING

tailor
dressmaker
milliner
furrier
embroiderer

3) TEXTILES AND LEATHER

shoemaker - bootmaker
leatherworker
tapestry maker - upholsterer (using tapestry)
vehicle upholsterer

4) METAL

locksmith
fitter
toolmaker
lathe operator
gunsmith
precision mechanic
sanitary engineer
heating engineer
tinsmith
refrigerating engineer
heat insulation engineer
vehicle body builder
sheet metal worker - panel beater

5) MOTOR MECHANICS

motor mechanic
agricultural machinery mechanic
motorcycle mechanic

6) ELECTRICITY

a) electrical installer
electrical engineer
winder
motor electrician
electrical sign electrician
b) radio and television electrician
low tension electrician

7) PRECISION WORK

watchmaker
jeweller - goldsmith
office machine mechanic
sewing machine mechanic

8) WOOD

cabinet maker
carpenter
model maker
parquet layer
shutter maker
turner
wood carver
worker in heavy timber
musical instrument maker

9) HAIRDRESSING

ladies' and gentlemen's hairdresser (male)
ladies' and gentlemen's hairdresser (female)

10) HEALTH

optician
dental mechanic
orthopaedic mechanic - truss maker
maker of orthopaedic footwear

11) BUILDING

bricklayer
terrazzo layer
roofer
marble mason
stone cutter
stone carver
paviour
ceiling plasterer
façade worker
chimney sweep

12) PAINTING AND GLASS

painter and decorator
vehicle painter
enameller
glazier
art glazier

13) GRAPHIC ARTS

printing: machine minder, letterpress
printing: machine minder, offset
printing: compositor
photoengraver
lithographer
book-binder
photographer

VI. The industrial sector

Industrial apprenticeship

Industrial firms offer young people desiring to learn a trade training opportunities in their apprentice workshops enabling them to learn the following occupations: fitter, electrician, winder, lathe operator, cylinder turner, welder, caster, patternmaker, ironsmith.

Pupils in the 6th year of primary school intending to become industrial apprentices are advised to follow the following training route: 7th "common", 8th "polyvalent", 9th full-time metal and electricity.

From the academic year 1974/75, pupils who have successfully completed the 9th metal and electricity (9th vocational) are admitted to industrial apprenticeship directly, while other candidates have to take an admission examination and must also attend a special course during their first year of apprenticeship (16 hours per week).

There are plans to make it obligatory for pupils to take the 9th metal and electricity year in school before they can be admitted to industrial apprenticeship; in other words pupils who start apprenticeship at that age will have to have taken and passed that course. The 9th metal and electricity will then be regarded as a preparatory year for industrial apprenticeship.

A contract of apprenticeship is entered into between the firm and the apprentice; it may be cancelled by either party during the first three months of the apprenticeship, which are regarded as a period of trial and observation.

The apprenticeship takes the form of:

- 1) practical training in the industrial firm;
- 2) general theoretical training given in day-release classes at a technical college for 12 or 16 hours per week.

The training ends with the final apprenticeship examination for the certificate of vocational aptitude (CAP) awarded by the Chamber of Commerce. In future the apprentice, to be allowed to take this examination, will have to have attended the final year at technical college. It follows that a failure at college during the first or second year of apprenticeship will henceforth mean that the apprenticeship period will be extended by one year.

During a transitional period the CAP examination for pupils who have not taken the final year at technical college will cover all the subjects and subject-matter taught during the three years of apprenticeship.

For pupils who have completed the final year at technical college the final apprenticeship examination will cover only the subjects, and in particular only the subject-matter, taught during that year.

When the transition to the final stage is complete, that is to say when success in the three annual apprenticeship courses has become compulsory, the examination syllabus will cover only the subjects taught in the last year. In awarding the CAP, account will be taken of the marks obtained in the examination and of the results for the year, the theoretical and professional sections being weighted by means of coefficients.

Industrial apprenticeship gives the apprentice a relatively high level of training which enables the holder of the CAP to work as a charge hand in industry. Very able pupils may, under certain conditions, continue their studies to train as technicians (two years) or engineer-technicians (four years).

Apprenticeship in the iron and steel industry

A ministerial regulation of 31 December 1976 created an industrial apprenticeship in the iron and steel industry and laid down the conditions for this type of apprenticeship: the contract of apprenticeship must be registered with the Chamber of Commerce; the length of the apprenticeship is fixed at three years. The training programme contains a general theoretical section, a professional theoretical section and practical courses. The training proper, which starts with an orientation period of six months, is wide-ranging ("poly-valent") and covers the technology of blast furnaces and rolling mills. It also gives apprentices some idea of repair techniques. The practical courses are given alternately at the blast furnaces and at the rolling mills.

In each year of apprenticeship 37 weeks are earmarked for theoretical training and 11 for practical training. Theory is taught in 16 weekly lessons during the orientation period and 24 weekly lessons during training proper.

The theoretical training programme is determined by the Secretary of State for Education in conjunction with the relevant professional bodies.

Promotion from one apprenticeship year to the next is based on the results of exercises and tests done by the apprentices during the year in accordance with criteria laid down by ministerial regulation in conjunction with the relevant professional bodies.

No apprentice is allowed to continue his apprenticeship if the results obtained during the year's training are judged to be inadequate. The length of the contract of apprenticeship is altered accordingly.

Completion of apprenticeship in the iron and steel industry is marked by the award of a certificate of vocational aptitude by the Chamber of Commerce on the basis of a final apprenticeship examination organized along the same lines as that of other industrial trades.

The industry's present training capacity is about 30 apprentices a year, a number that is still too small.

It is envisaged that after a few years' experience on the shop floor such as foremen at the blast furnaces, converters or rolling mills workers in the steel industry who have received this training will be promoted to key jobs. For those who show the necessary ability and character, promotion to supervisory posts will be possible.

VII. Commercial apprenticeship

Commercial apprenticeship prepares apprentices for the following occupations:

- I. a) office employee (in banking, insurance and administration, and in firms in commerce, industry and the craft sector) in a business management capacity;
 - b) office employee (in banking, insurance and administration, and in firms in commerce, industry and the craft sector) in a secretarial capacity.
- II. sales personnel, shop assistant.

I. Commercial apprenticeship: office employee - secretarial or business management (book-keeping assistant)

This apprenticeship begins with two years of full-time classes at the College of Commerce.

The College of Commerce, which since 1953 has been a full-time division of the technical college system, prepares pupils for the lower level of the commercial and administrative professions as clerks, book-keepers, cashiers, shorthand typists and secretaries by means of apprenticeship.

There are two classes, the 9th year commercial and the 10th year commercial. The latter year offers two options: secretarial and business management.

The following are admitted to the 9th year commercial:

- a. pupils from the 8th polyvalent;
- b. pupils from the 8th year in the intermediate sector;
- c. pupils from the Vith form of the secondary sector.

An admission examination is held each year for candidates from other parts of the education system who have not successfully completed the classes indicated. This examination covers French, German, English and mathematics, and is based on the syllabus of the 8th polyvalent.

After completing their two years' classes, candidates sit the theoretical section of the final apprenticeship examination. Then, after completing one year of practical training in a banking, commercial, industrial or craft firm, or in an administrative department, doctor's surgery, etc, the trainee clerk takes the practical section of the final apprenticeship examination and, if successful, gains his or her certificate of vocational aptitude (CAP).

Pupils are advised not to be content with passing the theoretical section of the CAP but to go on to the second section after their one year's training.

The holder of a CAP has no difficulty in obtaining permission to trade on his own account.

Pupils from the College of Commerce are highly regarded by firms and have no difficulty in finding jobs.

II. Commercial apprenticeship (selling)

Pupils wishing to learn a profession involving selling receive theoretical and practical training in the technical and vocational education sector.

A) Direct preparation, leading to admission to the "professional system", is given on a full-time basis during compulsory schooling.

Having passed the 6th year of primary schooling, the pupil is admitted to the 7th year "common" after he has passed an admission examination consisting of written tests in French, German and arithmetic, based on the syllabus of the 6th primary.

Girls and boys who have chosen a profession in the sales sector attend the 8th intermediate and polyvalent and then the 9th vocational (selling).

After passing the 9th vocational (selling), the pupil enters the "professional system". He has finished his compulsory schooling and enters into a contract with an employer. Apprenticeship in a firm, with at least eight day-release lessons per week, lasts for two to three years - two years for pupils who have passed the 9th-year class and three years for pupils who have either not attended or not passed the 9th. During apprenticeship young people are trained both in a firm (practical section) and at college (theoretical section). At the end of their apprenticeship they take their final apprenticeship examination which consists of a theoretical section covering general and vocational subjects and a practical section (CAP).

- B) Pupils who have passed the 7th year of additional primary education or have failed to pass the 7th in another sector of the educational system must sit an admission examination for entry to the 8th year classes of vocational education. This examination consists of written tests in French, German and arithmetic, based on the syllabus of the 7th year of additional primary education. (The arithmetic test may be replaced by a maths test based on the syllabus of the 7th orientation or the 7th common.)

- C) Children aged 14 either leaving primary education or leaving a post-primary course followed for two years without success must sit an admission examination to enter the 9th vocational (selling). The examination consists of written tests in French, German and arithmetic, based on the syllabus of the 8th year of additional primary education.

D) Pupils aged 15 who have finished their compulsory schooling may enter the in-firm training system directly. They must enter into a contract of apprenticeship and attend day-release classes at a vocational college for three years.

III. Reform of commercial apprenticeship

In a letter of 15 January 1976 the Secretary of State at the Ministry of Education requested the Chamber of Commerce and the Chamber of Private Employees to submit proposals for the reform of commercial apprenticeship with a view to the preparation of a grand-ducal regulation.

In accordance with both Article 44 of the law of 4 April 1924 setting up professional institutes on an elective basis and the spirit of the grand-ducal decree of 8 October 1945 amending the apprenticeship law of 7 January 1929, the Chamber of Commerce and the Chamber of Private Employees decided to hold joint discussions on the content of a reform of the commercial apprenticeship system.

In the view of the two professional bodies, developments in organizational techniques and technology generally have given rise to new needs which commercial and administrative training will have to meet if it is to provide firms with an adequate supply of qualified staff for the economic world of tomorrow.

Conscious of these developments and convinced of the necessity of creating structures which will enable pupils to make a choice of career more in line with their aptitudes, the Chamber of Commerce and the Chamber of Private Employees have declared themselves in favour of the principle of merging the post-primary establishments attended by young people of 12 to 15 into a single type of school and restructuring the commercial apprenticeship system.

The latter measure, the professional bodies think, ought in principle to take effect from the end of the compulsory schooling period and admission into a 9th-year class.

However, implementation of this measure, quite apart from the fact that it would be dependent on the merging of the post-primary establishments attended by children of 12 to 15 into a single type of school, would also be subordinate to the creation of an adequate number of merged centres in the various regions of the country, the organization of a permanent method of supplying information to teachers, parents and pupils, and the institution of a reasonable transitional period during which obligation to attend the 9th would not be a prerequisite for admission to commercial apprenticeship.

Commercial training and apprenticeship should in future be built on the foundation of this new type of school and should form part of a technical and vocational education system grouped together under a single governing body and a single organizational structure.

The training given would consist of a short course and a long course.

The short course would provide training up to CAP level while the long course, to which the best pupils from the short course would be admitted, would train junior technical and administrative staff.

1. The short commercial apprenticeship course would last three years starting after the 9th and would consist, according to the type of profession being learnt, of one or two years of full-time classroom work and two or one years of practical work in the firms.

2. The long commercial training course, intended to train junior administrative and commercial staff, would last at least four years. The best pupils from the short course could be admitted to the fourth year of the long course after passing an admission test.

The Chamber of Commerce and the Chamber of Private Employees consider it necessary, in order to ensure that teaching and apprenticeship are properly run, to introduce educational counselling units at Ministry of Education level which would co-ordinate and supervise the implementation of curricula and the application of appropriate teaching methods in the various groups of subjects.

In general, this structure of apprenticeship should permit pupils less gifted in the theoretical side of their subject to acquire a complete training with the aid of back-up courses in portions of the syllabus which are causing them difficulties. Apart from the necessary revision of school structures, the two professional bodies deem it necessary to convince pupils that social advancement and economic and material success are inconceivable without a sound vocational training and that if they do not take their training seriously they run the risk of finding themselves in a dead end in a period of economic crisis. It is a fact that in these difficult times it is young people without complete training and definite qualifications who are most threatened by unemployment.

The needs of the future demand that practical work in the firm should have as its basis the theoretical knowledge acquired through vocational teaching and training geared to concrete examples and that it should cease to be based solely on the experience of several years' activity which has ossified into a set routine inimical to any kind of innovation.

The new technologies do not make it necessary merely to reorganize the commercial apprenticeship system; they also mean that curricula and teaching methods must be made more concrete, with the corollary for the professional bodies involved that they must invest in equipment and material on the same scale as has been done with the aid of the State in the craft sector.

As for pupils who, while showing a certain degree of practical aptitude, do not manage to pass the theoretical tests, the Chamber of Commerce and the Chamber of Private Employees wonder whether, besides the reform of teaching methods and curricula, the introduction of a weighted marking system would not help to overcome the lack of progress of such candidates.

To improve professional education, it would be necessary to supplement the principles outlined above by strengthening the degree of co-operation between the training given in college on the one hand and in the firms on the other. A prerequisite for such co-operation would be the drafting of curricula for the practical side of training and the introduction of work books to be kept up by the apprentices and countersigned by the qualified instructor within the firm. In addition, there would have to be continuous contact between the teachers at college and the instructors in the firms, either effected through an apprenticeship counsellor or initiated by the firms themselves.

Only by periodical meetings between those responsible for teaching in the college and for training in the firm would it be possible for pupils' progress to be monitored and for pupils to be effectively assisted. This co-operation would have to be supplemented by discussions with the parents of pupils who were experiencing difficulties at college or in the firm. And of course there would have to be talks with the pupils themselves, in order to create a climate of understanding and trust conducive to study and learning.

This two-way flow of information and consultation would help those responsible for training to organize back-up courses for the less able pupils in subjects with which they were having difficulties. In this way the greatest possible number of pupils could be assured of receiving a complete training.

Finally, it should be understood that in future all education would have to be continuous, in that professional activity would be accompanied by refresher courses which, in order to be effective, would have to be given to employees who had received the most advanced instruction possible during their apprenticeship.

Definition of the commercial training courses

The short commercial apprenticeship course would last three years starting at the end of the 9th school year and would consist, according to the type of profession to be learnt, of one or two years of full-time classroom work and two or one years of practical work in a firm.

The long commercial training course designed to train junior administrative and commercial staff would last at least four years. The best pupils from the short course could be admitted to the fourth year of the long course after they had passed an admission test.

Conditions for admission to commercial apprenticeship

Admission to commercial apprenticeship would be granted to young people who:

1. had completed their compulsory schooling and had at least passed the 9th;
2. had applied to the vocational guidance service of the Department of Employment;
3. had signed a contract of apprenticeship which had been registered in the roll kept by the Chamber of Commerce.

Length of apprenticeship

The length of a commercial apprenticeship would usually be fixed at three years which, according to the subjects chosen, would be split up as follows:

- a. for sales personnel:
one year in college, full time (10th),
two years' practical work;
- b. for shop assistants:
one year in college, full time (10th),
two years' practical work;
- c. for clerks:
two years in college, full time (10th and 11th),
one year's practical work;

- d. for book-keeping assistants:
two years in college, full time (10th and 11th),
one year's practical work;
- e. for designers and decorators:
one year in college, full time (10th),
two years' practical work.

The apprenticeship curricula

The apprenticeship curricula would be based mainly on the curriculum of the 9th year and the latter curriculum would have to be designed in collaboration with the relevant professional bodies.

The curricula for the years of practical work, which would be synchronized with the theoretical matter taught at college, would have to give candidates a certain minimum spread ("polyvalence") of subject-matter - a requirement felt particularly strongly by small and medium-sized firms. It is essential that apprentices should have a chance to familiarize themselves with the main functions of their profession during their practical training - particularly those studying administrative subjects - and that they should do a turn of duty in all the firm's main service divisions or departments.

With this in view, the following standard curricula are proposed:

- 1. For sales personnel (two years):
 - a. salesmanship
 - b. stock management
marking and control of goods
 - c. over-the-counter sales
receiving and dealing with customers
sales psychology
 - d. documentation
 - e. cashier's duties.

2. For shop assistants (two years):
 - a. stock management
marking and control of goods
 - b. inventory keeping
 - c. documentation: keeping the card index
 - d. documentation: filling in the cards.

- 3.1. For clerks and book-keeping assistants in commerce (one year):
 - a. purchasing/the purchasing department
 - b. stock management
 - c. selling
 - d. invoicing
 - e. book-keeping,

- 3.2. For clerks and book-keeping assistants in banking (one year):
 - a. the stock exchange department
 - b. investments and securities
 - c. transfers
 - d. current accounts
 - e. stock and share certificates and coupons
 - f. foreign exchange

4. For designers and decorators (two years):
 - a. study of advertising projects and building fascia projects
 - b. construction of a model
 - c. execution in:
 - a) wood
 - b) cardboard and paper
 - c) iron
 - d) synthetic materials
 - e) electricity
 - f) handwriting
 - g) marking.

For professions with a practical apprenticeship period of one year, working in three service divisions or departments is considered a minimum. Candidates

in professions with a two-year practical training should return to college twice a year to take part in seminars lasting at least a week each. The programme of these seminars would be drafted in close collaboration with the professional bodies.

A curriculum which includes subjects as complex as languages and technology must necessarily rely on different methods from those used in, say, secondary education, and in particular should make use of audio-visual aids in the teaching of technology.

But it should not be thought that the theoretical teaching of a large number of subjects can be successful simply because it relies on methods with a concrete and audio-visual slant. It is an obvious requirement of teaching that many opportunities for revision should be included in the timetables. For this reason, too, catch-up courses are indispensable for helping pupils with difficulties.

Contact between the school, the firm and the apprentice's legal representative

To help all apprentices to be successful in their training, it is essential that co-operation between the academic side and the firms should be increased.

The best means of attaining this objective would be to legislate to make it compulsory for the college and the firms authorized to train apprentices to collaborate. In the view of the Chamber of Commerce and the Chamber of Private Employees, such collaboration should take the following forms:

- a. introduction of an apprenticeship counsellor;
- b. organization of monthly meetings between the college teachers and the apprenticeship counsellor to co-ordinate and synchronize the theoretical training syllabuses taught in college and the practical training given in firms, and to discuss problems arising in connexion with the progress of pupils in their training;

- c. organization of meetings, one in mid-December and the other mid-April, to be attended, in addition to the college teachers and the apprenticeship counsellor, by members of the governing body of the college and of the professional bodies, with the object of:
 - i. analysing the pupils' results;
 - ii. locating pupils with difficulties in keeping up with the practical and theoretical courses;
 - iii. finding the cause of such difficulties in each case;
 - iv. inviting the parents of pupils with difficulties to a meeting to inform them of the poor marks scored by their children and to join with them in seeking a solution to the specific problems arising in connexion with the pupils' training.

An end-of-the-year conference should take place between representatives of the college and of the professional bodies in order to:

- a. analyse results;
- b. make a decision on the promotion of apprentices;
- c. invite the legal representatives to a meeting.

Promotion of apprentices

Apprentices should be promoted by means of a cumulative system of marks awarded both in college and during practical training in firms; if the total of such marks together with those obtained in the final apprenticeship examination exceeded a certain minimum, the CAP would be awarded.

Taking account of marks obtained in practical work would have the effect of abolishing the hegemony of the theoretical part of the CAP which in the present system is regarded by pupils as their main goal and reduces their interest in the practical side of apprenticeship.

Finally, the cumulative marking system would avoid making candidates' success too dependent on merely passing the final apprenticeship examination.

If such a system were to be used, it would be necessary to introduce an apprenticeship book into commercial vocational training. The book would start at the commencement of practical training. The apprentice's notes would be made in it and it would also contain the marks awarded by the instructors or tutors specially appointed to teach apprentices in the firm. The apprenticeship books would be assessed and marked and the marks would go towards the total required for gaining the CAP.

The apprenticeship counsellor

The great number of different duties involved in vocational training and the resultant need for co-ordination necessitate the creation of a post of apprenticeship counsellor. The holder of this post, whose conditions of employment would have to be determined at a later date and who would come under the joint authority of the professional bodies concerned, would work very closely with the vocational training department of the Chamber of Commerce and with the corresponding departments in the Chamber of Private Employees and the Ministry concerned as well as with the college and, if necessary, the Department of Employment.

The scope of his co-ordinating task would be made fairly wide. He would help to draft and adapt the training curricula, both theoretical and practical, he would monitor the synchronization of training in colleges and firms, and follow the progress of apprentices by examining their apprenticeship books, which would entail advising the employers or firms training apprentices. Similarly, he would advise and guide candidates by providing them with expert information, which he would also give to the parents. Finally, he would act as a mediator in difficulties of all kinds, whether they arose in study or at work.

Extension of the apprenticeship period

In principle, the contract would be extendable by one year:

- a. if the apprentice failed in either the 10th or 11th;
- b. if the apprentice failed the final apprenticeship examination.

If there were two successive failures the contract would be cancelled, but the apprentice would still have a chance to gain his CAF by attending evening classes.

The final apprenticeship examination (CAP)

As under current legislation, the successful commercial apprenticeship would be marked by the award of a certificate of vocational aptitude (CAP) by the Chamber of Commerce on the basis of the results as assessed by the final apprenticeship examination committee.

The examination committee would be composed of an equal number of representatives from the college, the Chamber of Commerce and the Chamber of Private Employees. As in the past, it would be possible for experts to be called in to help the committee. The committee would work under the authority of the Government Commissioner for final apprenticeship examinations and its secretariat would be provided by the Chamber of Commerce.

The final apprenticeship examination would be held at the end of the academic year (the end of July), with an autumn session (in mid-September) for apprentices who had postponed taking the examination. The March sitting would be abolished.

Apprentices who postponed taking the examination would have to have catch-up classes provided for them during the summer holidays. If an apprentice failed to pass at the autumn postponement session, he would be allowed to take his third apprenticeship year again.

VIII. The agricultural sector

There is no apprenticeship in the rural and agricultural sector in Luxembourg.

Nevertheless, vocational training for young men and women wishing to go into agriculture is provided in two vocational colleges which come under the Ministry of Education.

I. The Agricultural Training Institute at Ettelbruck

History and aims

A law of 12 November 1971 converted the old State agricultural college, which dated back to 1883, into the Agricultural Training Institute. The task of this educational establishment is to train agriculturalists and agricultural technicians and to provide refresher courses and advanced training courses to adults engaged in agriculture.

Sections and classes

1) The agronomic section (long course)

This starts with the 7th year common and extends through the 8th, 9th, 10th and 11th years, a total duration of five years. These studies culminate in the certificate of agricultural studies which is awarded if the final examination is passed.

The holder of a certificate of agricultural studies has the opportunity to continue his studies for two years until he obtains a diploma as an agricultural technician.

In certain circumstances the agricultural technician qualifies for admission to (agricultural) engineering colleges abroad.

2) The agricultural section (short course)

This section is simply the three-year training course offered by the old agricultural college. It is open to those who wish to limit their training to their compulsory schooling period. Completion of this course is attested by a certificate of practical ability.

Clearly the agronomic section offers the advantage of more advanced training and also the possibility of continuing one's studies up to the level of the agricultural engineering diploma.

3) Courses for adults

In winter the Institute runs refresher courses for farmers, designed to meet practical needs. The programme for these courses is published in the press at an appropriate time.

Conditions of admission

To be admitted to the lower classes of the Agricultural Training Institute, it is necessary:

- a) to have successfully completed the 6th year of primary school;
- b) to take the admission examination for the 7th common.

Success in the latter examination enables the pupil to opt for either the agronomic section or the agricultural section.

Pupils with certain gaps in their knowledge are advised to choose the agricultural section.

The 8th year class is open to pupils who have passed the 7th year common or the 7th year orientation in another school in the Grand Duchy.

Admission to the other classes is subject to success in a grading examination.

II. The Rural Domestic Science Centre at Mersch

The Rural Domestic Science Centre, created by a law of 9 January 1963, already existed before the war in the form of an agricultural domestic science college without a fixed abode. In 1947 the college was established in Mersch on a permanent footing.

The Rural Domestic Science Centre prepares girls for their future roles as mothers, housewives and farm managers.

Sections and classes

1) Rural domestic science section (four years):

7th common, 8th, 9th and 10th years of schooling.

The 7th common caters for both sexes.

2) Family section (three years):

7th, 8th and 9th years of schooling.

This section represents the curricula of the old agricultural domestic science college adapted to present-day needs. Completion of studies is attested by a certificate of family domestic science studies.

3) Further training courses:

These courses, which are for adults, are designed to give additional training to former pupils and others, particularly in subjects which they were too young to study during their schooldays.

Conditions of admission

Admission is granted to pupils who:

- a) have successfully completed their 6th year of primary school;
- b) have passed the admission examination for the 7th year common.

The examination results furnish a basis for deciding which of the two sections the pupil should enter.

Pupils who have passed the 7th year common in a different school in the Grand Duchy are admitted to the 8th year on presentation of their previous term's report.

IX. Apprenticeship - training of adults

In order to make it easier for adults to prepare for their certificate of vocational aptitude (CAP) and to make it possible for those who are following some vocation to retrain if they so wish, and considering that a system for the training of adults could not be satisfactorily embodied in a contractual apprenticeship system and that the supervisory role of the relevant professional bodies ought therefore to take the form of a more general sort of control, the Government in council decided on 7 January 1977 to organize a system of adult education to prepare adults for the CAP.

The training is organized in the following way:

The object of the system of training adults preparatory to taking the certificate of vocational aptitude (CAP) is to give those who have enrolled the opportunity either to re-educate themselves vocationally or to prepare themselves for the final apprenticeship examination in the various branches of activity of the craft sector, industry, commerce and the services sector.

The training consists of two parts:

- a) theoretical courses under the authority of the Ministry of Education in conjunction with the relevant professional bodies;
- b) acquisition of practical experience in their chosen profession under the supervision and control of the relevant professional bodies.

The theoretical courses consist of:

- a) education preparatory to specialized vocational training;
- b) specialized vocational training.

To be admitted to the preparatory theoretical courses, the candidate must be at least 18 years old and must produce certificates attesting the length, type and quality of his professional activity. No special academic qualifications are required.

Evidence of the candidates' progress is provided in the form of annual reports based on the results of day-to-day classroom work. Part of the classroom work on each subject must take place during the first six months of the year and the candidate must be informed of the marks he has obtained on this work not later than the beginning of the second six months of the year.

The annual report is made out on a special form headed "Grand Duchy of Luxembourg, Ministry of Education, Adult Education, Training of Adults Preparatory to the Certificate of Vocational Aptitude". It is signed by the teachers or instructors on the various courses and by the representative of the Adult Education Department, thereafter referred to as "the representative".

Tests to check practical knowledge may be organized by the relevant professional bodies.

The candidates undertake to attend courses regularly and to enter for the stipulated tests.

Admission to the final apprenticeship examination provided for by the grand-ducal decree of 8 October 1945 on apprenticeship is the responsibility of the Government Commissioner for final apprenticeship examinations on a proposal from the special commission provided for in Article 13.

X. Comments and criticisms expressed by interested parties

A. Association of teachers in technical and vocational education

This association is of the opinion that "the theoretical and practical training of apprentices takes insufficient account of the real needs of technical and economic progress in the field of the technical trades".

In addition the association considers that basic education, which alone can guarantee mobility and easy adaptation to the extensions and changes that are occurring in all sectors, is inadequate.

It points out that many private firms, faced with international competition, have been forced to specialize to a greater or lesser extent in a single aspect of their trade. Moreover, these firms are often overburdened and cannot provide the facilities for training and further training which young people demand and on which the progress of our economy is most urgently dependent.

The association makes the following proposals:

- a. Apprenticeship should be geared more to satisfying needs resulting from actual developments; in other words, comprehensive curricula based on modern teaching knowledge should be prepared. Besides this, a general body of knowledge common to all groups of trades should be taught, so as to ensure that there is an opportunity of social advancement.
- b. High priority should be given to technical knowledge which anticipates the adaptation and conversion measures which accelerating progress will make increasingly frequent and necessary.
- c. The size of classes should be reduced to academically admissible levels.
- d. The apprenticeship system should be given the very broad structure which it at present lacks, by improvement and upgrading of basic training; this would be effected by extending the period of full-time education by at

least one year by introducing a 10th "vocational" year.

- e. A qualifying examination covering both theory and practice should be organized; passing this examination would authorize the pupil to serve an apprenticeship in a craft firm whilst at the same time attending day-release classes. At the end of his apprenticeship the pupil would take the final apprenticeship examination and, if he passed, be awarded the certificate of vocational aptitude (CAF).

B. Opinion of the principal of the Northern Intermediate and Vocational College

1. Curricula

a. Despite the efforts of recent years, curricula are still frequently vague and over-ambitious, especially in languages.

b. The training of apprentices in the craft trades and industry sectors should be harmonized. This would entail offering a number of courses common to both sectors. In this way it would be possible to combine some courses and avoid having classes for which there was little demand. Greater homogeneity of apprenticeship could thus be attained.

2. Manuals

For some courses (eg "Power machines", "Materials", "Languages") there are either no manuals at all or those that do exist are unsuited to the educational level of the pupils.

3. Final apprenticeship examination

A brochure should be published, as is done in the intermediate education sector, to give candidates information about the organization, syllabuses and admission criteria of the examinations. Furthermore, there should be a rethink

of the organization of the examinations. In some trades or professions candidates have to take tests lasting from 8.00 a.m. to 5.40 p.m. and covering up to six subjects in one day. The various subjects should therefore be spread over several days.

4. Courses

In my opinion it is unacceptable from the teaching point of view that apprentices should have to attend classes for eight hours a day.

5. Curriculum of the 9th "catch-up" year

The 9th "catch-up" class has not attained the goal set for it. Instead of catering for pupils from the secondary and intermediate sectors of the education system its intake has been mainly from the additional primary sector. Moreover, these generally less able pupils have to assimilate in six hours a week the entire vocational theory curriculum on which their colleagues in the 9th vocational (a full-time class) spend eight hours a week.

The same goes for the 10th year "special": here pupils from the additional primary sector are required to assimilate both the normal curriculum of class UX 1 and that of the 9th vocational, that is to say two curricula of different levels.

N.B.

The examinations taking place in Luxembourg ought to be held in the pupils' own schools, to save them long journeys during the examination. Thus, for example, pupils from the Northern Intermediate and Vocational College have to leave Wiltz at 5.50 a.m. to travel to Luxembourg and do not get home again until 7.30 p.m.

C. Opinion of the principal of the Eastern Intermediate and Vocational College

1. The 9th year full-time class

This pre-apprenticeship class has a number of indisputable advantages, namely:

- a. its "orientation" character enables the future apprentice to form a more precise idea of the trade he wishes to pursue;
- b. a number of 14-year-olds have absolutely no motivation towards purely theoretical and abstract learning but do very well in a class composed of equal parts of practical work and theory;
- c. successful attendance at the 9th year full-time class reduces the apprenticeship period by six months.

2. The 9th year "catch-up" class

In its present form this class is wholly unsatisfactory.

All would-be apprentices should attend the 9th year full-time class; then - and only if they failed the 9th full-time - they should go on to a special class similar to the 10th year special class currently being run for industrial apprentices. Apprentices leaving secondary and intermediate education and classes 9H, 9CH, etc, of vocational education could enter this 10th year special class without having to go through the "9th full-time".

3. Day-release classes

With regard to day-release classes for apprentices in the craft sector, the following observations are made:

- a) there are difficulties of co-ordination between theoretical and practical training;
- b) the number of lessons per week is usually too low to ensure a satisfactory theoretical training.

To improve the situation, there ought to be, say, six theoretical lessons and six practical lessons per week for these apprentices (the number of lessons per week should be adapted to the needs of the different trades).

In this way it would be possible to co-ordinate the theoretical and practical sides of training and to guarantee uniformity of training for all apprentices regardless of the specialization of the firm employing them. In addition, the school would be enabled to ascertain a young man's theoretical and practical capabilities more effectively and set him on the road to CCM training if appropriate.

This half-theoretical, half-practical training would not be necessary for trades which require a full-time 10th year in college.

Furthermore, the trades should be grouped together in such a way that it would be possible to give the same vocational theory classes to apprentices in a number of allied trades during the first and, if possible, even during the second year of apprenticeship. Then only in the last year of their training would pupils be split up according to their specialities. In this way it should be possible to give the same theoretical training to both craft and industrial apprentices who were preparing themselves for the same trade.

The head teachers' association stresses that it strongly approves of certain measures taken in recent years, namely:

- a. the introduction of the CCM, enabling apprentices who are too weak at theory to obtain the CAP at least to acquire a diploma attesting their manual ability; without the CCM these young people would have been condemned to spend all their working lives as unskilled workers;
- b. the automatic extension of the contract of apprenticeship in the event of failure to pass year-end college examinations;

- c. the restriction of the subjects in the final apprenticeship examination to those specified in the curriculum of the final-year class of the apprentices concerned and the fact that the results obtained in class are taken into account in deciding whether a candidate has passed or failed this examination.

D. Opinion of the Inter-Union Committee of Professional Organizations of Craft Workers

A - Introduction

At its meeting on 5 October 1973 the Inter-Union Committee analysed the situation in the craft sector. It was of the opinion that:

1. in view of the progress made by technology, the craftsman's training must be constantly developed in order that these workers, who are responsible for ever more modern and expensive installations and machines, may remain equal to their task.

The greatest attention must therefore be given to the vocational training of craft workers.

It is no longer good enough for trainee craftsmen to be taught on equipment that will have been replaced by different, more advanced models tomorrow.

If the craftsman is to be able to adapt himself so that he can carry out repair and maintenance work to equipment that is constantly being improved, he needs greater theoretical knowledge.

Theoretical training thus forms the basis of a trade in the world of today.

2. The Committee recognizes that since the entry into force of the law of 3 August 1958 the training of young people by means of craft apprenticeship leading to the CAP has been the subject of appreciable improvements following the raising of the age for starting apprenticeship from 14 to 15 and

following the introduction of three full-time preparatory years within the framework of the education given by the vocational schools, comprising the 7th year "common", the 8th year "orientation" and the 9th year "full-time" and, in the case of the electrical trade, a 10th full-time year in school.

3. We nevertheless consider that the intellectual level of vocational teaching must be raised further, so that it may produce highly qualified young people.

Efforts to improve the training of craftsmen must therefore be continued.

4. In this connexion the Committee regrets that qualified craftsmen are becoming more and more rare in our country.

It therefore considers that the Government and the professional bodies concerned ought to make an effort to make apprenticeship more attractive.

It is not good enough to bring in foreign workers, usually without any vocational training, to fill the gaps. The first step must be a publicity campaign to persuade more young people from Luxembourg to learn a trade.

We recognize that the Chamber of Trades has made an effort by publishing a brochure explaining the various trades. But that is not enough to make apprenticeship more attractive.

In Luxembourg it is the general rule that families want their sons to enter the Lycée; if the young people do not succeed in this, they go to an intermediate school or a commercial school; if they do not succeed in getting into any of these establishments, they try for the College of Arts and Trades or a vocational school.

The Committee realizes that it will be difficult to persuade parents to make their children learn a trade. Young people will therefore have to be

attracted into a trade. What interests young people today is the pay that a job offers.

5. But at present apprenticeship in a trade is of no interest because the allowances paid during apprenticeship are much too low and many young people are leaving the craft sector for this reason.

By contrast, any office job, which requires a certificate from an intermediate school or a diploma from a commercial college, is better paid than a job providing a technical service or a job in a workshop.

It is not surprising, therefore, that young people choose to work in an office.

6. To remedy this situation, the allowances paid by employers must be substantially increased. Then the Government must make an effort to give pecuniary assistance to future craftsmen during their apprenticeship as long as there is a shortage of apprentices.

Finally, the titles "apprentice" and "journeyman" (compagnon) must be abolished, for we are no longer in the Middle Ages, when apprentices and journeymen were at the mercy of their masters.

In the world of today, craftsmen employed by an employer are full citizens and must be treated as such. This is one of the conditions for attracting young people into a trade.

7. To raise the standard of training of craftsmen, the theoretical teaching must be more advanced.

If that became a reality, there would be a risk of too many failures. So that the young people who fail are not lost to the craft sector, since there is already a great shortage of skilled labour, a special training avenue could be provided for some trades. We would then have two qualifications

in the craft sector.

This possibility already exists in training for paramedical careers and there is no reason why it should not be introduced for the craft sector as long as the shortage of apprentices persists.

But the certificates for the two categories must be differentiated.

8. The age at which candidates can obtain their master's certificate should be lowered from 24 to 21, or alternatively candidates should be allowed to take the test after three years working in a trade.
9. Finally, our Committee is of the opinion that it is urgently necessary to establish once and for all the equivalence or degree of equivalence between the various diplomas and certificates awarded by the College of Arts and Trades, the Chamber of Trades and the Chamber of Commerce, so that all young people learning a trade may know in advance the value of their diploma or certificate.
10. The Inter-Union Committee therefore respectfully submits its views on an outline law for the craft sector to the authorities concerned:

The outline law should deal with the following matters by means of harmonized legal provisions:

1. the duration of studies;
2. the avenues of training;
3. the conditions of admission to the various systems;
4. the contract of apprenticeship;
5. supervision of apprenticeship;
6. the final apprenticeship examinations;
7. the certificates obtainable;
8. the equivalence of these certificates;
9. the names to be given to those acquiring the various skills;
10. the allowances payable to trainee craftsmen.

B - Proposals on the training of craftsmen

1. Duration of studies

The duration of studies for the various craft trades should be laid down by grand-ducal regulation.

The duration may vary from trade to trade according to the curriculum; the latter must be so designed that the pupil can acquire all the knowledge and skill necessary for the exercise of his profession in the minimum of time.

2. Avenues of training

In principle, apprenticeship for a trade should offer three avenues of training:

- I - a system leading to the diploma of vocational aptitude;
- II - a system leading to the completion-of-studies diploma from a craft school;
- III - in certain trades a special avenue for pupils who fail to get through the normal avenues of training or who do not qualify for admission to a technical college or craft school.

N.B.: All pupils wishing to learn a trade should be obliged to visit vocational education centres or a craft school recognized by the State.

3. Conditions of admission to the various systems and duration of studies

Re I above - Vocational system leading to the diploma of vocational aptitude (DAP)

CAF training would be a composite system, that is to say full-time in-school teaching followed by training by the employer with accompanying day-release classes.

Duration: three years' full-time in-school vocational education and one or two years' apprenticeship in a firm.

Admission: After their 6th year of primary schooling pupils could enter the 7th year "common".

Course of the training:

- a) Admission examination for 7th "common" after the 6th year of primary schooling.
- b) After the 7th "common", three years of theoretical education in the trade chosen by the pupil (8th, 9th and 10th year classes).
- c) After the 10th year class, theoretical section of the DAP examination.
- d) At age 16 the pupil would start his craft training proper; this would last one or two years.

During this period he would attend day-release classes in professional theory (eight hours per week).

- e) At the end of his training in the firm the pupil would take the practical section of the DAP examination, which he would normally pass at the age of 18.
- f) Both the practical and the theoretical sides of the training of electricians should take place entirely at technical college, if the State has adequate facilities.

Re II above - Vocational system leading to the completion-of-studies diploma from a craft school

To obtain this diploma, candidates should undergo full-time in-school training.

Duration:

- a) First course: two years.
After the 6th year of primary schooling, admission examination to the 7th year "common" and then attendance at the 8th year "technical" (orientation year, in which pupils would choose their preferred subject).
- b) Second or specialization course: three years.
Having passed out of their 8th year "technical", pupils would specialize for three years in their chosen craft subject (9th, 10th and 11th years).

These studies would culminate in a final examination and the diploma awarded would be equivalent to the DAP.

The pupils would gain their diplomas at the age of 17.

Re III above - Special training avenue

The Inter-Union Committee sees no reason why young people who have completed their compulsory schooling in the additional primary sector should not learn from an employer a trade in which practical skill is the main requirement, for obviously young people less gifted in the theoretical aspect of the work must be given an opportunity to earn their living.

We should state, however, that this training avenue is not to be recommended unreservedly because it is an expedient which would help to deplete the already short supply of master craftsmen.

Consequently, pupils should be allowed to make use of this system only if they have not been admitted to one of the other two systems mentioned above.

This practical system would rely exclusively on in-firm training, supplemented by special day-release courses in applied professional theory.

The system would also be open to pupils from the composite system and from full-time in-school training who had failed their respective examinations.

Training:

- a) Pupils leaving the 6th year of primary school who could not get into a vocational school or a craft school but who had good manual skills would be able to choose one of the trades for which this system was devised.
- b) During the three years of their additional primary education they would specialize in the trade of their choice.

- c) At 16 they would start their apprenticeship in a firm and this would last three or four years.
- d) The practical system would culminate in the apprenticeship examination under the CCM formula.

This examination would consist of the practical tests of the DAP plus an oral test on matters relating to the candidate's trade.

Candidates passing the examination would be granted their certificate of manual ability (CCM).

Failure in the examination would mean that the contract of apprenticeship was extended until the next session of the examination.

- e) Pupils moving from the "professional system" to the "practical system" at the beginning of the academic year would move on to the immediately higher apprenticeship year in the latter system.

IMPORTANT OBSERVATIONS

- a) The Inter-Union Committee wishes to make it plain that in those branches of trades in which substantial knowledge and skill, both theoretical and practical, are essential to the exercise of the trade it is not possible to introduce a CCM system.

The following is a list of trades for the exercise of which the possession of a diploma of vocational aptitude (DAF) is considered indispensable.

METALS

- A) Engineering
 - Mechanic - fitter
 - Lathe operator
 - Toolmaker
 - Motor mechanic
 - Office machine mechanic
 - Precision mechanic
 - Gunsmith
 - Vehicle body builder
- B) Installation; tinsmiths' work
 - Tinsmith
 - Sanitary fitting installer
 - Central heating installer
 - Refrigeration installer

C) Electricity	Electrical installer Electrician Winder Vehicle electrician Radio and TV electrician Low tension electrician Maker of electrical signs
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D) Precision work	Watchmaker Jeweller
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WOOD	Joiner Model maker
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HYGIENE AND HEALTH	Optician
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OTHER TRADES	Fprinter Typographer Photoengraver
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- b) On the subject of the composition of the Vocational Guidance Commission, the Inter-Union Committee considers that it has the right to have a delegate on that body to represent its interests.
- c) Finally, we recommend that catch-up courses should be organized so that holders of the CCM can gain their DAP.

4. The contract of apprenticeship

5. Supervision of apprenticeship

6. The final apprenticeship examinations

Points 4, 5 and 6 are governed by the rules laid down by the grand-ducal decree of 8 October 1945.

Our Committee basically agrees with almost all the provisions of that grand-ducal decree. The following changes are necessary, however:

- a) The word "apprentice" should be replaced by "trainee craftsman".

- b) The apprenticeship allowances provided for in Article 10 should be substantially increased.

In view of the paucity of the increase granted by the ministerial regulation of 26 March 1973, we suggest that the Government should pay a special allowance to trainee craftsmen and an end-of-training premium.

- c) Paragraph 3 of Article 11 should be deleted.
- d) Articles 26 and 27 of the grand-ducal decree of 8 October 1945 make certain provisions concerning the final apprenticeship examination.

In our opinion members of teaching staffs from the vocational education sector ought to be represented on examination committees.

The teachers are better qualified than anyone else to judge whether or not a candidate possesses the necessary knowledge for the exercise of a trade. What is more, their objectivity is beyond question.

- e) Finally, Article 28 of the grand-ducal decree of 8 October 1945 should be amended so that it is made quite clear that it is the Minister of Education, after hearing the opinion of the professional body concerned, who alone is competent to decide on the equivalence or degree of equivalence existing between the diploma of vocational aptitude provided for in the outline law on the craft sector and the vocational diplomas awarded by the State technical colleges or the private colleges recognized by the State.

7. The master's certificate

Further training courses and courses preparing for the master's certificate should be given in the technical colleges by the teachers of those establishments.

To be admitted to courses preparing them for the master's certificate, candidates must hold a CAP or a completion-of-studies diploma from a craft school.

Admission to these courses should be granted at age 21 or three years after obtaining the DAF or the completion-of-studies diploma from the craft school.

The syllabus of the examination ought also to be specified in the outline law.

8. Equivalence of diplomas and certificates

Three avenues are proposed for vocational education:

- a) the composite system;
- b) full-time education;
- c) training in the firm.

At the end of their training the pupils obtain a diploma or certificate.

Young people learning a trade should be enabled to be certain of the value of the diploma or certificate which they can obtain before they make a choice about their training.

With regard to the three avenues of training, the first two are equivalent, so it follows that the two diplomas in question must be of the same value. In other words, the diploma of vocational aptitude is equivalent to the completion-of-studies diploma of a craft school recognized by the State.

The third avenue of training is not equivalent to the first two and the certificate of manual ability (CCM) would not have the same value as the other two diplomas.

9. Names

It follows that there should be a difference in the names given to the qualifications.

Craftsmen who obtain the DAP or the completion-of-studies diploma from the College of Arts and Trades should be called "qualified craftsmen".

Those who have gained the CCM should be called simply "craftsmen".

Craftsmen holding the CCM are not thereby entitled to try for the master's certificate.

10. Allowances payable during apprenticeship

For trainee craftsmen undergoing DAP or CCM training the allowances should be as follows:

- a) at age 15, 60% of the minimum social wage;
at age 16, 70% of the minimum social wage;
at age 17, 80% of the minimum social wage.

- b) Special allowance to be paid by the State for DAP training:

- 500 francs a month during the first year of apprenticeship;
- 1000 francs a month during the second year of apprenticeship;
- 1500 francs a month during the third year of apprenticeship;
- 2000 francs a month during the fourth year of apprenticeship.

Where the apprenticeship is served at a technical college on a full-time basis the pecuniary assistance granted by the State should be doubled.

- c) Payment of a premium on completion of apprenticeship

In the debate on the minimum social wage in Parliament on 27 February 1973, the Government and Parliament passed the following motion:

This House,

considering the shortage of skilled labour, particularly in branches of the craft sector;

taking the view that it is necessary to make apprenticeship in a manual trade more attractive;

and considering the new provisions of the law revising the minimum wage;

invites the Government to:

1. raise the apprenticeship allowances in at least the same proportions as the minimum social wage;
2. introduce an end-of-apprenticeship premium for apprentices gaining the CAP and to provide for a minimum of 25 000 francs augmented by 10 000 francs for a first prize and 5000 francs for a second prize for the promotion of work.

Our Committee agrees with this resolution but considers that the amounts specified for these premiums should be linked to the cost-of-living index.

The Committee therefore insists that the national budget should include credits to cover the payment of premiums to those concerned.

E. Opinion of the Chamber of Private Employees

a) Criticisms

1. Tests used in the examination

The Chamber of Private Employees has a criticism to make with regard to the form of the test used in the practical part of the examination.

Since there is no curriculum whatsoever specifying the skills and knowledge to be acquired during practical training, the examination is at present lacking in a solid basis of any kind.

Standard curricula for this part of the examination should be worked out jointly by both sides of industry; the existence of such curricula would prevent an employer from immobilizing a young apprentice in a single department during the whole of his practical training instead of teaching him how the whole firm functions.

In our opinion the employer has a duty to teach the apprentice rather than to regard him as a source of cheap labour.

Moreover, the use of standard curricula would represent a response to Article 11 of the grand-ducal decree of 8 October 1945 amending the apprenticeship law of 5 January 1929, which states: "The employer shall ensure that the apprentice receives education and vocational training within the framework of a standard apprenticeship curriculum approved by the Government and drawn up for each trade or branch of trade by the employer's professional body in conjunction with the professional body responsible for the apprentice."

2. Apprenticeship allowances

The current method of paying apprentices merits serious criticism.

Experience has shown that many young people are induced by their employers not to serve their year or years of practical apprenticeship on the pretext that by so doing they can immediately earn the minimum social wage.

But the alleged advantage is purely illusory. Private employees not holding the full CAP (theoretical and practical) take ten years to work up to the minimum social wage for skilled workers, whereas holders of the CAP achieve it after two years of service.

This financial argument is even more relevant with regard to candidates in selling. The apprenticeship allowance proper is appreciably lower than the allowance received by commercial apprentices and, besides, the majority of trainees in the sales field are girls, for whom the opportunity to earn a higher wage immediately overrules all considerations of a future career.

b) Theoretical and practical training

The corollary of reorganization of the practical side of apprenticeship as taught by the employer should be the reorganization of the theoretical education of apprentices. The emphasis should be on a knowledge of foreign languages; this would enable the recipients to make better contact with their clientele, which is steadily becoming more international, particularly in the city of Luxembourg itself. Therefore apprentices should have a minimum level of general education, to give them greater self-confidence when dealing with that clientele,

The theoretical side of sales and other techniques, secretarial work and business management should be updated to take account of the changes that have occurred in real life.

With this object in mind, it is essential that a permanent committee, with equal representation for the employers' professional body, the employees' professional body and the Ministry of Education, should be set up.

The task of this committee would be to study and draw up curricula each year for both practical and theoretical education of apprentices in vocational matters.

Our members think that the effectiveness of the committee would be enhanced if an apprenticeship inspector or counsellor were to be appointed. This inspector, who would be a member of the said committee, would be a person with considerable experience of apprenticeship problems; his duties, analogously to those of inspectors of primary education, would be to supervise and assist pupils and employers throughout the practical apprenticeship period, to monitor the application of standard curricula, and to forestall abuses by either employers or apprentices.

c) Training the trainers

The problem of training the trainers also merits closer study. Practical teaching following a standard curriculum presupposes that the instructors, in this case the heads of firms or their representatives, should be capable of communicating their knowledge to the apprentices in a manner that is readily assimilable by the latter. To get away from a system of teaching based on empirical methods, which are often ineffective, there should be periodical meetings of these instructors at which they would exchange information and receive training in the skills of motivation, encouragement, assessment and, above all, in the basic teaching skills.

d) Information and control

The members of our professional body are of the opinion that it is essential that there should be a more complete supply of information to apprentices and their parents.

The information we have in mind is, firstly, general information about apprenticeship and, secondly, information about apprenticeship vacancies and about the nature of the jobs which the young people intend to try for.

Apprenticeship vacancies should be publicized in the schools and parents should also be kept informed of them.

This method is the one used very successfully by the College of Hotel-Keeping at Diekirch.

Another practice introduced by that college is the method of apprenticeship books; the employer enters comments on the apprentice's progress in the book and the apprentice must read the comments and countersign the book. Our members consider that this practice could well be used in the general apprenticeship context.

e) Vocational certificate (brevet professionnel)

Reform of the practical side of apprenticeship should culminate in the introduction of a vocational certificate for commercial and sales staff.

The certificate would be awarded to holders of the CAP who, incidentally, would have completed their training in specialist colleges abroad. To this end, the Government could well grant scholarships to the top holders of the commercial CAP. The rapid and continuing changes taking place in commerce clearly demonstrate the need for supplementary courses of this kind.

F. Joint opinion of the Chamber of Commerce and the Chamber of Labour on a reform of industrial apprenticeship

In the view of the two professional bodies, new demands are being made of training as a result of the extension of the participation of civil servants in private firms and the advanced technology involved in the mechanization of production processes.

Conscious of these developments and convinced of the necessity to create structures which will enable pupils to be guided into vocations more suited to their aptitudes, the Chamber of Commerce and the Chamber of Labour call for the merging of the post-primary establishments attended by children of 12 to 15 into a single type of school and for an extension of the period of industrial apprenticeship. In principle, industrial apprenticeship should commence after success in the 9th-year vocational class, attendance at which would be compulsory. However, implementation of this measure, quite apart from the fact that it would be dependent on the merging of the post-primary establishments attended by children of 12 to 15 into a single type of school, would also be dependent on the creation of a sufficient number of these merged centres in the different regions of our country and on the organization of a means of providing continuous information to teachers, parents and pupils, as well as on the establishment of a reasonable transitional period during which attendance at the 9th "vocational" would not be a compulsory prerequisite for admission to industrial apprenticeship.

The continuing mechanization of manufacturing processes is not only a reason for extending apprenticeship but would also entail making vocational curricula and teaching methods more concrete in their approach.

It would therefore appear to be essential to make 16 hours' teaching of general and vocational theory per week the general rule and to use teaching methods with a definite bias towards the concrete rather than the abstract. In this connexion, the two professional bodies would point out that the relative weekly amounts of time devoted to theoretical and practical teaching should be a function not of the requirements of the school but of the needs of the trade or profession being taught.

With regard to candidates who, although they possess practical skills, do not succeed in mastering the theoretical subjects, the Chamber of Commerce and the Chamber of Labour wonder whether, apart from a reform of teaching methods and curricula, the introduction of marking coefficients would not help to solve the problem of the advancement of such candidates.

To improve vocational education, the principles outlined above would have to be supplemented by strengthening the links between training given in school or college on the one hand and practical training given in the workshop on the other. A prerequisite for such co-operation would be harmonization of the curricula of vocational theory and practical exercises in the workshop, together with continuous contact between teachers at the college and instructors in the firm. Only if there were regular meetings between those responsible for teaching in college and in the workshop would it be possible for pupils to be properly supervised and effectively assisted. The collaboration would have to be completed by discussions with parents of pupils having difficulties either at college or at work.

In this connexion, it should also be asked whether it would not be a good idea to set up inter-firm apprentice workshops for apprentices recruited by small firms in order to give all apprentices equal training opportunities.

Such an apprenticeship structure should in general enable even those pupils with least ability in theoretical subjects to obtain a complete training, provided the number of weekly hours of theory was increased so that the normal

curriculum could still be taught in entirety to these pupils using teaching methods with an even greater emphasis on the concrete.

The pupil's progress in an industrial apprenticeship should be determined from year to year on the basis of his results both in the workshop and in college. For this purpose marking coefficients which take account of both vocational theory and practical exercises should be introduced. In addition, a committee composed of teaching staff, workshop staff and representatives of the professional bodies should assess the pupil's progress and decide whether he is to be promoted.

If all the conditions for placing apprenticeship on the foundations sketched out above were met, it would have to be decided whether it would be a good idea to grant the CAP to apprentices who had successfully completed their third year of apprenticeship, with the final apprenticeship examination being made to cater firstly for pupils who had not succeeded in the third year and, secondly, for those who had acquired their knowledge by other means on their own initiative.

Detailed rules for the new system

(a) The legal basis

The legal basis for the new training system would be the apprenticeship law of 5 January 1929 and the grand-ducal decree of 8 October 1945 amending the apprenticeship law of 5 January 1929.

(b) Conditions of admission to industrial apprenticeship

The following young people would be admitted to industrial apprenticeship. Those who had:

1. completed their compulsory schooling and passed the 9th-year "vocational" class;
2. visited the vocational guidance service of the Department of Labour;
3. entered into a contract of apprenticeship which had been duly registered in the roll kept by the Chamber of Commerce.

(c) Duration of apprenticeship

The duration of the apprenticeship would be three years, with the possibility of extending the contract by one year.

(d) Apprenticeship curriculum

The apprenticeship curriculum would in principle be based on that proposed below for the 9th-year "vocational" class.

Curriculum of the 9th-year "full-time vocational" class

Weighting of subjects and subject-matter to suit industrial apprenticeship.

Current timetable of the 9th-year "metal" class:

Subject-matter taught	Lessons per week	
	Present	Proposed
Ethics (Christian or lay)	11	1
French	2	2
German	2	2
Correspondence and documentation	2	2
Civics	1,5	1,5
Hygiene	1,5	1,5
Physical education	1	1
Vocational science	3	3 (2)
Electrical science	1	2 (2)
Maths, algebra, geometry	2	3
Vocational drawing	3	3
Practical work	12	10 (1)
Electrical work	2	2
Total	<u>34</u>	<u>34</u>

(1) In view of the fact that very thorough practical training is given during the three years of apprenticeship, the number of lessons set aside for practical work may be reduced (from 12 lessons to 10) in favour of theoretical work.

(2) The two lessons taken away from the total earmarked for practical work should be assigned to vocational electrical science (one lesson) and maths (one lesson).

Finally, the Chamber of Commerce and the Chamber of Labour wish to stress that it is essential that, parallel to the reform of timetables, there should be a revision of the curricula of the various subjects to be taught.

The detailed curricula for the 9th, 10th, 11th and 12th years should be drawn up by a special committee composed of teachers and of representatives from the undersigned two professional bodies. As for the curricula for the practical workshop exercises, these should be co-ordinated and synchronized with the vocational theory curricula taught at school. For this reason, collaboration between school and apprentice workshop, discussed under (f) below, must be strengthened.

By analogy with the curriculum planned for training apprentices in the iron and steel industry and with the aim of securing an appreciable reduction in the rate of accidents at work, it is desirable that the subject "Safety and hygiene at work" should also be introduced into the theoretical curricula of industrial apprenticeship to give theoretical support to the relevant instructions given during practical training in the workshop.

(e) Methods

A curriculum containing such complex subjects as hydraulics and pneumatics must necessarily use a different set of methods from those relied on in, for example, secondary education; use should be made of audio-visual techniques for teaching vocational theory.

But it should not be thought that a theoretical training covering many different technical matters can be successful simply and solely because it relies on methods with a concrete and audio-visual bias. Normal teaching criteria obviously demand that timetables should allow for plenty of revision work in vocational theory. This is another reason why the length of time allocated for teaching general and vocational theory must be raised from 12 hours to 16 hours per week.

(f) Contacts between school, apprenticeship workshop and the apprentice's legal representative

In order to help all apprentices to succeed in their training, it is essential that collaboration between the school or college and the apprentice workshop should be strengthened. The best way to achieve this would be to legislate to make it compulsory for there to be collaboration between the school and the firm which had set up an apprentice workshop.

In the view of the Chamber of Commerce and the Chamber of Labour, that collaboration should take the following forms:

- a. there should be monthly meetings between the schoolteachers and the workshop instructors of each class to co-ordinate and synchronize the theoretical training curricula taught in college and the practical curricula taught in the workshop and also to discuss, both collectively and individually, problems arising in connexion with pupils' progress in their training;
- b. there should be twice-yearly meetings, one in mid-December and one in mid-April, which would be attended, apart from teachers from the college and instructors from the workshop, by members of the governing body of the college and by representatives of the firm's management. The object of the meetings would be:
 - i. to analyse pupils' results;
 - ii. to locate pupils with difficulties in their practical and theoretical training courses;
 - iii. to find out the causes of the difficulties of each individual pupil;
 - iv. to invite parents of pupils with difficulties to a meeting to inform them of the poor marks scored by their children and to join in seeking a solution to the concrete problems raised by their training;
- c. there should be a year-end conference between representatives of the college and the firm in order to:
 - i. analyse results;
 - ii. take a decision on whether or not the apprentice is to be promoted;
 - iii. invite the legal representatives to a meeting;

d. a consultative committee should be set up at national level with representatives from the firms that have set up apprentice workshops, the college, the employer's professional body and the professional body responsible for the apprentice; the task of this committee would be to establish criteria for the promotion of pupils and to examine results as a whole to decide whether the training system should be adapted to meet new needs.

(g) The promotion of apprentices

The timetable of the 9th-year "vocational" class shows that the curriculum covers courses of general and vocational theory and practical courses. The obvious question arising is the relative weight to be accorded to theoretical courses on the one hand and practical courses on the other.

The view of the Chamber of Commerce and the Chamber of Labour is that the general and vocational theory courses of the 9th vocational should be given a weighting of 75% while the weighting of the practical training side should be limited to 25%. The reason for this is that the practical training curriculum of the 9th vocational is confined to the most elementary practical techniques.

As between general theory and vocational theory, which together would account for 75% of the final result, the weighting should be 50% each.

With regard to the weighting of individual subjects within general theory and vocational theory, this should be on a basis of equality because the education given by the 9th is an integral part of compulsory schooling and is meant to be comprehensive in nature.

The timetable would thus be as follows:

General theory

(1)	(2)	(3)	(4)
Ethics	1	-	-
Physical education	1	-	-
Civics	1,5	4	25%
Languages	4	4	25%
Correspondence and documentation	2	4	25%
Hygiene	1,5	4	25%

(1) Subject

(2) Number of hours per week

(3) Weighting factor (1 to 4)

(4) Percentage

Vocational theory

(1)	(2)	(3)	(4)
Vocational science	3	4	25%
Electrical science	2	4	25%
Mathematics	3	4	25%
Vocational drawing	3	4	25%

(1) Subject

(2) Number of hours per week

(3) Weighting factor (1 to 4)

(4) Percentage

Promotion of pupils should not depend on the results of the last term only. In order to encourage apprentices to work regularly and to eliminate to some extent such imponderables as the effects of sickness, the results of all terms in the year should be taken into account in reaching a decision on the promotion of an apprentice, in the following proportions: results of the first term, one-sixth; of the second term, two-sixths; and of the third term, three-sixths. An apprentice will be promoted if he has obtained - applying this formula - a general average of 30 points. However, he will not gain promotion if the points obtained in a subject are lower than 20.

Promotion of apprentices to the 10th, 11th and 12th year classes would be subject to the following three principles:

- a. the practical and theoretical training courses would have to be synchronized;
- b. an autumn examination for the CAP would have to be added and the March examination abolished;
- c. apprenticeship would have to be extended by one year in the event of failure.

Synchronization

The following table illustrates the present situation:

	Firm			College		
	Year 1	2	3	Year 1	2	3
First-year apprentice	x			x		
Second-year apprentice		x			x	
Apprentice who has failed the first-year in college		x		x		
Third-year apprentice			x			x
Apprentice who has failed the second-year in college			x		x	

It is clear that there is a very serious synchronization problem for all sections of the various trades taught. Faced with this situation, the decision must be taken to make an apprentice who fails in a given year in college take the year a second time in the firm as well as at college.

Table illustrating the new situation:

	Firm			College				
	Year	1	2	3	Year	1	2	3
First-year apprentice		x				x		
Second-year apprentice			x				x	
Apprentice who has failed the first-year in college		x				x		
Third-year apprentice				x				x
Apprentice who has failed the second-year in college			x				x	

Under this proposal the curricula of college and firm would to a certain extent run parallel.

As for the criteria for promotion to the 10th, 11th and 12th vocational, they should take more account than in the past of vocational theory, which is a characteristic feature of apprenticeship in the 10th, 11th and 12th years, compared with the 9th and primary school where general theory is predominant. For this reason, the Chamber of Commerce and the Chamber of Labour propose that practical training should count for 60% and theory for 40% in the promotion of apprentices; within the theory section, vocational theory should count for 60% and general theory for 40%.

(h) Extension of the apprenticeship period

In principle, the contract should be extended for one year:

- a. in the event of failure in the 10th or 11th;
- b. in the event of failure in the CAP examination.

In the event of successive failures the contract would be cancelled. The apprentice would still have a chance to gain his CAP by attending evening classes.

(i) The final apprenticeship examination (CAP)

In accordance with the legislation currently in force, completion of industrial apprenticeship would be marked by a certificate of vocational aptitude (CAP) granted by the Chamber of Commerce on the basis of the results as assessed by the final apprenticeship examination committee.

The examination committee would be composed of an equal number of representatives from the college, the Chamber of Commerce and the Chamber of Labour. As in the past, experts to be nominated by the Minister responsible for vocational training would be co-opted on to the committee on a proposal from the Chamber of Commerce and the Chamber of Labour. The committee would work under the authority of the Government Commissioner for final apprenticeship examinations and its secretariat would be provided by the Chamber of Commerce.

Pending the phased implementation of the proposals put forward in this memorandum, apprentices who had successfully completed the 12th vocational would still have to take the final apprenticeship examination. But the latter examination would account for only 50% of the marks necessary for obtaining the CAP, the remaining 50% being provided by marks scored in college.

The final apprenticeship examination would be held at the end of the academic year (end of July) and an autumn session (mid-September) would be provided for apprentices who had postponed their attempt. The March session would be abolished.

It would be essential to provide catch-up courses during the summer holidays for apprentices who had postponed taking the examination. Apprentices failing to pass at the postponed session in the autumn would have to take their third apprenticeship year again if they wished to continue trying for the CAP.

In addition, the Chamber of Commerce and the Chamber of Labour wonder whether it would not be a good idea to let a week elapse between the theoretical and the practical parts of the CAP examination.

Detailed curricula

More detailed proposals for the curricula for the various trades would have to be worked out by a special committee composed of representatives from the college, the Chamber of Commerce and the Chamber of Labour.

Conclusions

The Chamber of Commerce and the Chamber of Labour have attempted to sketch out the broad outlines of a future system of industrial apprenticeship based on the grand-ducal decree of 8 October 1945 amending the apprenticeship law of 5 January 1929. They wish to emphasize that this memorandum is merely intended as a basis for discussion; they do not claim to have put forward solutions to all the problems besetting vocational training. For example, the problem of the synchronization of craft and industrial training is not dealt with in it. Because of the structure and size of the firms in the craft sector, it would certainly be more difficult to organize and supervise apprenticeship along the lines proposed for industry unless the craft sector had sufficient resources to organize its apprenticeship system in the way proposed for small firms in industry, that is to say by setting up inter-firm training centres. The Chamber of Commerce and the Chamber of Labour are, moreover, aware that any reform, of whatever size, will have to be implemented in stages. They are therefore at the disposal of the relevant authorities if they wish to discuss the outline plan as herein put forward and the details of its stage-by-stage implementation.

XI. The new aspects of vocational training

If one starts from the premise that social progress in a modern society is dependent on the vocational knowledge and skill of its citizens, the importance of vocational training in any national education system becomes of paramount importance. By vocational training we mean apprenticeship and the assimilation of specific items of knowledge, whatever the nature or level, which a person must acquire in order to enter upon working life. For a long time schools paid relatively little attention - or, at the most, only incidental attention - to those skills, aptitudes and items of knowledge. Until very recently schools confined themselves to giving pupils a general education, intended to prepare them for life rather than for a profession or trade. Establishments offering full-time preparation for a trade or even for a profession were relatively few in number. Moreover, their methods were similar to those used in general education; their curricula tended to lag behind the latest achievements of science, technology and the arts.

Traditional vocational training

The task of training craftsmen, technicians, indeed even administrative or commercial staff was largely left to the trades and professions themselves - to the workshop, the laboratory and the office.

A trade, whether craft, manual or intellectual, was learnt by contact with reality. Initiation took place gradually, unsystematically, "on the job". Rudimentary technology and the sum total of the knowledge of the time demanded no more. Only the higher educational establishments undertook to educate students so that they could pursue the profession of their choice, and even then, it was often very fragmentary.

The needs of an ever more demanding economy and pressure of time soon become too much for the traditional method of vocational training to cope with. Today apprenticeship to a trade is increasingly required to take place before the apprentice starts work. Furthermore, it seems more rational to use manual and intellectual manpower to its full capacity rather than to encumber the normal working of a business with the burden of apprenticeship, which is anyway a chancy affair.

Moreover, the fact that all fields of human activity are rapidly becoming more technically complex has revolutionized our living and working conditions. Technical developments demand, for all vocational activities, new qualifications, a more thorough training and a wider range of functions and standards. A systematic and phased type of training is necessary. It is the task of technical and vocational education to satisfy these requirements.

Vocational training in schools

Now the role of schools looks entirely different.

Firstly, schools are required to grade those who are preparing for a vocation; to guide them towards careers with opportunities; to select them on the basis of their abilities and their keenness. In other words: to set the boy or girl on course towards the vocation best suited to his or her abilities.

Secondly, it is the task of education to do all it can to help young people to be successful in their chosen field by preparing them as well as possible for their future career.

Gradually the place of work, whether it be workshop, building site, office or laboratory, is beginning to play only a secondary role, a supporting role. And it is on the schools that vocational education will mainly have to rely.

This change cannot be effected without difficulties; yet it is quite logical. During the exercise of a trade or profession, diversity of experience is gained only over a long period. But apprenticeship, from the moment it starts, must be as complete as possible and cover all situations which may be met with in practice. The total body of knowledge required must be acquired systematically following a carefully planned curriculum which brings in the difficulties which have to be surmounted in a gradual and scientific manner.

This can be done only in an artificial setting equipped and organized to simulate diverse and tricky problems - in other words, in school.

The two phases of education

It will readily be seen what are the conclusions to be drawn with regard both to the ultimate objective of education and to its structure.

It will almost be necessary to redesign the concept of schooling from scratch. It will not be enough to revise curricula, to create new classes, to build modern workshops, to install new equipment. It will be necessary to adapt school to the concrete requirements of the economy, now that school is increasingly becoming ready to take on the role formerly played by the firms in all types and levels of study.

Let there be no mistake, the ideal of a general education still has its value in school, especially in the preparatory stage before the beginning of vocational education proper. But general culture no longer fulfils the demand for specific vocational knowledge; at most it can provide a background and give greater depth to vocational teaching.

In all logic, it must be admitted that in the first stage of schooling, known as "general education", the emphasis should be on the teaching of languages and the study of ethical or cultural subjects, whilst in the second stage, known

as "vocational education", the effort should be concentrated on giving young people the knowledge and skills which will enable them to start a career.

General and vocational education will vary in length according to the innate difficulty of the trade or profession and the desired level of attainment.

Even in the various practical or manual careers the theoretical back-up provided by general knowledge remains important. As technology becomes more complex and as manual work becomes subordinate to the mechanical instrument or scientific apparatus and has to be executed methodically following diagrammatic instructions, vocational training must provide solid support in the form of intellectual knowledge. This means that the technicians of the future, of whom there are many, must devote quite a long time to studying arts and science subjects before starting to study their profession. As science and technology progress, the time needed for study tends to get longer, not only in the vocational stage but in the preparatory stage too.

Some important consequences flow from the new goals of education and from the fact that it is divided into a preparatory stage and a vocational stage:

- a) It will be necessary to reorganize schools to take these new goals of education into account, and to rearrange curricula and adapt methods. Thus, as we have already said, the cultural and general educational elements are no longer anything more than a basic support to the schools' true vocation and logically must be relegated to the background after the end of the preparatory stage. Moreover, the general educational curricula must contain elements of economics and social studies calculated to develop in the pupil qualities and skills which will enable him to integrate himself into the different human communities and adapt himself to the changes in our society.

- b) Accepting that the great majority of children will not be able or willing to choose a career or to select the type of vocational education that suits their tastes and aptitudes before they have reached the age of 14 or 15, general or preparatory education will last for eight or nine years, that is to say for all, or almost all, the period of compulsory schooling. In other words, by the time they have finished their compulsory schooling most pupils will not have attained the true goal which they had set themselves, namely learning a trade or profession. Compulsory schooling is no more than a stage in education, it is no longer an end in itself. The only people to whom this rule does not apply are children not wishing to acquire any vocational qualification at all. Their number is declining as educational opportunities grow.
- c) Apart from certain exceptional cases, it is desirable that preparatory education should be identical or similar for all pupils of both sexes up to the age when they can make a proper choice, that is to say 14 or 15 ("common base"). This would have the advantage of providing a single uniform foundation for later education, thus making it easier to draft curricula.
- d) Since vocational education proper has the most diverse objectives which are pursued at widely varying levels, it can only be organized rationally by combining allied types of training in single courses. Full-time education would thus become more comprehensive, though longer. The interest aroused by such courses stems from the fact that comprehensive training gives job-seekers a better chance on the employment market.

e) Since the physical conditions of vocational education should be as similar as possible to those encountered by pupils when they start their working lives, it is an advantage if courses are held in premises where the conditions and atmosphere of the work-place can be simulated or reproduced. This consideration has given birth to the school workshop, which is used not only in craft apprenticeship but also in training for scientific careers. Where working conditions cannot be physically reproduced, the teaching can usefully be combined with practical training courses or seminars.

In fact, this synthesis of practical work and teaching has been in existence in Luxembourg for some time, especially in craft apprenticeship. What is new is the larger part played by systematized teaching at school, the co-ordination of curricula and continuous monitoring of knowledge, both practical and theoretical.

School and work

Co-ordination of the objectives to be pursued and the means of attaining them entails very close collaboration between school and work. In future we shall have to get used to the idea of representatives of the trade or profession having a say in the teaching given by schools. We shall therefore see these representatives being present at examinations, helping to draft curricula, inspecting the teaching in school workshops. Conversely, teaching staff will have a voice on the examination juries which admit candidates to a trade or profession. The presence of teaching staff should enable the juries to establish their standards of assessment at comparable levels (to full-time education).

The training of adults

When discussing vocational training, one cannot pass in silence over the efforts made in training adults.

Such training is intended for those who are engaged in well-paid work and who, for many different reasons, wish to obtain further training. They have the opportunity to do so at evening classes or further training classes or else at the practical training courses organized in large numbers all over the country by the professional bodies and the Government.

More recently, accelerated training courses have been set up. These are intended for those who have no qualifications - notably foreign workers - and those who have to change their trade. The distinguishing feature of these courses is that they dispense with theoretical teaching and concentrate entirely on teaching purely manual skills required for carrying on a given trade.

Later, there will be an attempt to organize longer training courses, on either a full-time or part-time basis, to enable those attending them to learn the theoretical elements necessary for obtaining the certificate of vocational aptitude (CAP) which, besides giving students a vocational qualification, opens up the way to mastership.

Diplomas

Before dealing with the problem of vocational guidance, we shall end these preliminary remarks with a few comments on the importance of diplomas.

The proof of having received normal training is the possession of a diploma. And by referring to a person's diploma, one can determine his "value" on the employment market.

There is therefore a very real benefit in obtaining a diploma, particularly one granted or endorsed by the State. But diplomas are beyond the reach of

many less able people, being awarded for levels of achievement beyond their capacity.

It seems reasonable that anybody seeking a vocational qualification should be able to obtain a diploma whatever his talents, provided that he applies himself conscientiously.

But in that case there have to be final or intermediate diplomas for every level of knowledge or skill. For this reason we establish stages of progress at each level of knowledge or skill and we mark the attainment of such stages by awarding certificates or diplomas.

The stages of vocational qualification are as follows:

1. certificate of manual ability (CCM);
2. (a) certificate of vocational aptitude (CAP);
(b) certificate of vocational education (BEP);
3. (a) master's certificate;
(b) technician's certificate;
4. engineer-technician's diploma.

The courses of study

In most education or training systems, these stages represent courses of equal length, ie they are comparable. We assume that all types of training are equivalent and that the level reached, ie the value of the training, is determined not by the nature of the teaching given but by its duration. Thus two three-year courses passed in the technical sphere are worth the same as two three-year courses in the scientific or arts field.

In modern vocational training there is no longer a "superior" stratum and an "inferior" stratum. There is merely a very thorough type of training (for a doctor, for example) and an elementary type of training (for a skilled workman, for example). It is only as one gets further and higher into studies that the concept of duration loses its significance in relation to the diplomas obtained.

Guidance

Although there is sometimes a tendency to exaggerate the results achieved by guidance, the fact remains that the criterion for judging the success of a school geared to the needs of an evolving society is largely the school's qualitative and quantitative output. In other words, the different branches of teaching leading to the goals for which they are intended must at the right moment "produce" the required number and quality of specialists.

Although our first concern is to reorganize education by a series of reforms and adjustments co-ordinated in the light of the objective to be attained, the output from the various types of training is far from being in line with requirements.

First of all, it is difficult in a country like ours to assess needs sufficiently far in advance. Statistics, and the forecasts based on them, are valid only when they relate to a large population. We do not have that population. For example, when a shortage of teachers caused by the phenomenon of the "bulge" of schoolchildren seemed to promise plenty of future careers in the teaching profession, it was no more than three or four years before the shortage had been made good.

In matters of guidance we are largely reduced to playing a guessing game.

Despite this handicap, we have made a serious attempt, with the aid of the National Labour Office, to estimate the number of jobs that will be available in future years in several sectors of industry. A similar study was undertaken as part of the "Building 80" symposium in connexion with the building trades.

The results of these surveys are only approximate, however, and may be put out by the slightest variation in the economic situation, even by the unforeseen expansion of a single sector or a single industry.

The methods of guidance

Assuming that the demand for skilled labour in the different sectors and levels of the economy could be ascertained, it would be necessary to adopt methods of guidance or preselection in order to train the workers in question. Even if the methods were effective, it would hardly be possible in normal circumstances to use a "limited number" system. But where such a system is used, selection has to be made before the start of vocational training proper.

In order to curb blatantly ill-advised choices of career, there are only two practical methods and they must be applied together. They are:

- a) eliminating the surplus candidates by failing them, ie by making the teaching increasingly difficult;
- b) offering attractive and acceptable alternatives.

Within the secondary education sector, where there is a great surplus of pupils seeking intellectual careers, we have offered children in the IVth form and upwards several options designed to change pupils' career directions in accordance with their aptitudes and to divert as large a number as possible away from the humanities (where there is the greatest surplus). Outside the secondary sector, they have a real opportunity to follow non-humanities courses by going, after leaving the IIIrd form, either to the College of Technology, which will prepare them to become engineer-technicians, or to the College of Commerce and Administration, which will prepare them for various administrative and commercial careers.

In technical education and in training for the manual trades, the problem is different. For a start, there is no surplus of aspiring technicians and apprentices.

The difficulties met with in technical and vocational education stem from the extreme diversity, which is steadily growing, of the trades and techniques that have to be taught. This kind of education covers numerous areas of activity and many very different levels of training. It prepares people for jobs in the most important sectors of the economy, such as industry, the craft trades, commerce, the arts, hotel-keeping and tourism, agriculture, social and paramedical work, and many other sectors. From another aspect, the different degrees of qualification for which vocational teaching must prepare candidates in the same trade range from semi-skilled journeyman to master and technician. Since each applicant must be given a complete training in keeping with his potentialities, there are considerable difficulties in organizing the education system. To date, schools have been neither able nor willing to take the place of on-the-job training entirely. A part of technical and vocational training still has to be provided by the firms and the professional organizations.

Apart from apprenticeship in developing and advanced technologies, classroom teaching remains, to a substantial though decreasing extent, complementary to workshop training. Ensuring co-ordination of effort and proper collaboration between schools and firms is one of the most important duties of those responsible for technical and vocational education.

Initiation and comprehensiveness of training

To eliminate the risk of a wrong choice of career, we have made sure that our training systems provide initiation and comprehensiveness. After one year of sound general education (the 7th "preparatory common"), future apprentices are tried out in and made aware of the major categories of activity in the 8th "polyvalent" classes, finally starting their training in a year known as the 9th "full-time" which gives them a general view of a group of trades rather than of a single trade. This full-time year comes between the end of general

education and the beginning of apprenticeship. Apprenticeship itself is planned on a much broader basis.

By giving a wider definition to the various craft trades, we shall make qualifications in them more comprehensive and finding a suitable job easier.

Finally, we shall enable apprentices to obtain several allied qualifications when they decide to serve their apprenticeship full-time, ie in college. Training of this kind will necessarily take several years.

Guidance advice

Even if it is sometimes unsuccessful, one cannot ignore guidance advice, ie advice given to young people to help them choose their career. It is a fact that the natural inclinations of each individual can be scientifically determined. The client is put through a number of tests and made to answer questions, which are designed to reveal either his special talents or his inclination towards this or that vocation. This method is used by the guidance centre of the National Labour Office.

But this is not enough. For a guidance officer to be able to give good advice to an individual, he must be in possession of information on the latter's school performance, his character, his social background, and any handicaps or disabilities that he may have, and it is impossible to collect all this information except over a reasonably long period. It is envisaged that a guidance card should be filled in for each pupil every year and kept, together with his report, in his school record file.

The fact remains, however, that most choices of career are made spontaneously, particularly the general decision to take up a craft trade.

When a young person leaves primary school, his choice of career will have already been foreshadowed by his choice of post-primary education. Unfortunately, most of these choices are premature and take account neither of the aptitude of the child, who is too young to be able to form an opinion on such matters, nor of the job opportunities available on the labour market which are all too often taken for granted.

There is only one way of overcoming this serious disadvantage: to make general education last long enough for the adolescent, who would by that time be aware of his interests and apprised of his abilities, to be capable of making a decision for himself. So that this can be easily done, education systems must remain identical, or at least similar in nature ("common base"), in order to make it possible to enter the different avenues of vocational training. At present this identical or similar education is given for two years in secondary schools ("modern section") and intermediate and vocational schools ("technical system"), and for three years in secondary schools ("modern section") and intermediate schools. It is still possible to transfer from one type of education to another, even if differences of pace make it harder for pupils to move from vocational or intermediate schools to secondary schools than vice versa.

Within the technical and vocational education sector the cycle of observation and orientation is designed so that pupils can be observed, their aptitudes detected and their capacities discovered.

To give this orientation procedure a maximum of objective value and to make it as productive as possible, it is necessary:

- a) that it should be based on the observations and judgment not of a single teacher but of all the teaching staff who, over a given period of observation, have had charge of the pupil in question. For this purpose there must be regular exchanges of views between all the teachers of a given year. The final opinion should be given by the "class board", composed of the head teacher or his representative and all the teachers in that particular year;

- b) that the teachers' observations should be supplemented by those of the school doctor who, if necessary, will assist the "class board";
- c) that difficult or doubtful cases should be referred to a psychologist and a qualified guidance officer.

In general, there must be very close collaboration between the class board and the educational guidance and vocational guidance services.

Intermediate and vocational colleges

It would certainly be a good thing if the teaching of a common curriculum or similar curricula could take place on the same site; changing from one type of education to another is easier if it does not involve a change of location. Both the existing infrastructure of our secondary schools and a long tradition of vertical integration of the VIIth and the Ist still prevent us from creating genuine "common bases". The integration of the intermediate and vocational sectors in the new intermediate and vocational colleges is to a large extent creating a system of comprehensive education (Gesamtschule). This new type of education is currently being tried out and is giving encouraging results. Its definitive establishment is the subject of a bill which is at present being drafted.

The problem of the non-qualified

We have no statistics of the exact number of young people leaving school with no qualifications whatever. The estimates lie between 35 and 40%. In the primary or additional primary sector alone 15 to 17% of the pupils of each year give up their studies before the end of the period of compulsory schooling (the 9th year). Others, having completed their additional primary education, start their working lives without taking the trouble to learn a trade. Others again, and there are quite a lot of them, take their chance in the secondary or

intermediate education sectors, but give up their studies there before completion.

Fortunately, many young people succeed in obtaining a qualification by starting their new career from the practical end. Nevertheless, the number of young people remaining without a real career and burdening the employment market with unskilled labour is too high.

The reorganization of vocational training by a number of successive measures constitutes a specific attempt to reduce the numbers of the unskilled and to make it easier for them to take up a career.

Additional primary education

It is estimated that at present some 30 to 40% of schoolchildren do not succeed in clearing the hurdle of the admission examination to the 7th year "common" classes of the various sectors of the education system and therefore have to complete their compulsory schooling at primary school or in the additional primary sector.

Now it was soon realized that under the system embodied in the education law of 10 August 1912, as reformed by the law of 5 August 1963, many pupils of both sexes were incapable, in the normal course of events, of completing the three additional years provided for by Article 9 of the law of 5 August 1963 and were not receiving the certificate of completion of primary studies introduced by Article 19 of the education law. It is also too rare an occurrence that pupils who have failed to complete their additional primary studies obtain the certificate by taking a later examination by means of which they prove that they have the necessary knowledge to merit receiving the certificate. The reason is that additional primary education is organized on the basis of traditional ideas embodied in the law. Thus, to be admitted to the additional primary sector it is necessary to have successfully completed the 6th year of studies, ie the final year of primary education proper. Those wishing to go on from the 7th to the 8th year and from the 8th to the 9th must be successful in their 7th and 8th years.

Boys and girls capable of obtaining satisfactory marks in all the theoretical subjects taught in the additional primary sector are rare. The intake into additional primary establishments usually consists of children who are either less able than average or whose abilities lie solely in the direction of practical or manual trades.

To rescue this sector of education and at the same time to enable boys and girls who find it difficult, if not impossible, to keep up with theoretical education at a high standard to obtain vocational qualifications, a reform of the additional primary system is being studied.

Despite the efforts that have been deployed for some time to give additional primary education modern facilities and competent and keen staff, the reforms now under consideration must be regarded as a last-chance endeavour. In its original form, additional primary education no longer plays its part and is in visible danger of collapse. Boys attending the classes, particularly in their 8th and 9th years, are not characterized by excessive ambition. Most of them have irrevocably lost their chance of becoming apprentices in manual trades. If they nevertheless try to enter apprenticeship, they are likely to come to grief very soon because they have not been properly prepared for the special requirements of apprenticeship and their education does not fit in with the apprenticeship curricula.

To link the training systems harmoniously with the various levels of apprenticeship, it will be necessary to establish and maintain close collaboration between the different types of education which open out in the same direction, such as additional primary education and vocational education.

The present position of technical and vocational education in our school system

To organize technical and vocational education in such a way that it forms a logical and co-ordinated system, without thereby violating the many different aspects of its duties, is a continuing task. Another objective, no less difficult and delicate, is the harmonious integration of technical and vocational education into the national education system as a whole or, in other words, ensuring that it synchronizes and intermeshes with the structures of the other educational systems.

The reforms which the Government is trying out and those which it definitely intends to implement must be flexible and enable adjustments and adaptations to be made at a later date. But they will have to affect the whole spectrum of the technical and professional education system, from its principles to its structures and institutions via its curricula and teaching methods. It will readily be understood that an undertaking of this scope cannot be successfully carried through to completion in two or three years.

In recent years the length of study, the curricula, the conditions of admission, the criteria for promotion, the examination rules, the possibilities of changes of direction within schools, the rules for transferring to other schools, the conditions of training, recruitment and appointment of staff, and even the teaching methods and equipment down to school textbooks and the names of classes in the different schools have been made uniform or harmonized.

In a small country there is a danger that excessive differentiation, too narrowly specialized training avenues and too widely varying types of school may dilute the potential effort and the available resources. The whole system has therefore been planned so that its various parts are independently viable

and their existence can be justified whilst at the same time satisfying economic needs.

We have attempted, with our system of vocational training, to arrive at an equilibrium in technical and vocational education - one which is sometimes very difficult to achieve - between the following three factors:

- a) the needs of our economy;
- b) the social aspirations and personal preferences of parents and pupils;
- c) the intellectual, moral and physical aptitudes and capacities of pupils.

Training systems catering for young people should enable each individual to attain a level of knowledge and skill which corresponds to his real aptitudes. Hence our professional training set-up offers young people a considerable number of training opportunities of varying degrees of difficulty.

XII. Prospects for the future

I. Towards a reform of technical education

In its declaration of 4 July 1974 the Government stated that it would prepare a comprehensive law on technical and vocational education and vocational training.

Since then the Ministry of Education has prepared a preliminary draft version of two bills to reform technical and vocational education in Luxembourg, from the preparatory stage to the higher education level:

- 1) a draft bill for a constitutional law on second-stage technical education;
- 2) a draft bill for a law setting up a Higher Institute of Technology.

The preliminary draft version of the two bills in question has been submitted for an opinion to representatives of the parties involved, ie the conferences of teachers in intermediate, technical and vocational schools and the professional bodies, to enable them to participate in the reform of technical and vocational education from the drafting stage onwards. A final draft will be prepared in the light of the opinions received and will be submitted to the Government in council and the legislature.

The main task of second-stage technical education will be to prepare boys and girls for their working life whilst at the same time ensuring that they receive an adequate education from the general, humanities and social points of view.

There will be three stages of technical education:

- a. a preparatory stage which will last for three years after the end of the 6th year of primary schooling, taking children through to the end of their compulsory schooling; this preparatory stage will be equivalent to the first combined secondary cycle resulting from the merging of the present post-primary schools attended by children from 12 to 15 into a single type of school which will be introduced by a law;
- b. an intermediate stage of at least two years which will consist of a full-time "technical system", leading to the certificate of technical education, and a part-time "professional system" accompanying apprenticeship in a firm, which will lead to a diploma (brevet) of vocational aptitude (in the present system: the CAP);
- c. a final stage of two years which will give a thorough vocational training whilst allowing access to new second-stage technical studies which will be created.

The technical system of the intermediate stage will comprise the following divisions:

1. an industrial technical division, with sections on trades, building, engineering, electrical engineering and industrial toolmaking;
2. a chemical and paramedical division, with a section on chemistry and a section giving preparatory education for the paramedical professions;
3. a social division, with a section giving preparatory education for the career of instructor in differentiated education and of educational instructor, and a section on household training;
4. an artistic division, with a fine arts section and a decorative arts section;
5. a commercial division, with secretarial and management sections;

6. a hotel division, with sections on hotel-keeping, cooking and service;
7. an agricultural division.

The professional system of the intermediate stage will comprise the following divisions:

1. an industrial division;
2. a craft division;
3. a commercial division.

The final stage will consist of two years of full-time study and will have two divisions: a management and administration division and a division for general technical education. It will be possible for training leading to the qualification of technician to be combined with this system, provided the opinions of the representatives of the interested parties support the creation of such a procedure.

The draft bill for a constitutional law on second-stage technical education provides for the total integration of the intermediate education sector, the College of Commerce and Administration and the whole of the technical and vocational education sector.

A working party set up in 1967 by the Minister of Education to study the reform of technical and vocational education concluded, in its report dated 16 January 1970, that intermediate education was duplicating technical and vocational education; that conclusion is even more true today.

The law of 16 August 1965 establishing the intermediate education system introduced a new kind of education which, on the basis of a general education, was to "prepare pupils for certain posts in the lower and middle strata of public administration and the private sector". It must therefore be considered to be vocational education. The creation of an education system of a vocational nature in a certain field, outside the main technical and vocational education system, which runs the risk of giving rise to duplication of effort - bearing in mind the special conditions of our country - cannot be justified.

In this context it is perhaps appropriate to mention that in other countries the shortened system of general secondary education, which had some point fifty years ago when the demand for technical personnel was minimal, is tending to disappear, being progressively absorbed into the technical and vocational education sector which is better adapted to the requirements of the economic and social life of today.

Article 1 of the law of 25 April 1974 setting up a College of Commerce and Administration states that the College is "intended to prepare girls and boys, by giving them thorough training, for administrative and commercial careers in the public and private sectors". So here we have vocational training again, at a higher level, it is true, but the vocational objective is clear and precise.

Compared with technical education structures abroad, the present system in Luxembourg has a gap which becomes increasingly unbridgeable for our students if they wish to continue their technical studies abroad. This is our lack of a certificate of technical education ("maturité technique").

Up till now it has not been possible, generally speaking, to pursue technical and vocational studies beyond the intermediate level, ie beyond the 11th year. There are, it is true, some types of training which can be continued up to and including a 13th year class, such as those for chemistry technician, biology technician, agricultural technician and electrical engineering technician. But our country lacks a second-stage general technical education system enabling young people who complete it successfully to start higher technical studies or even university technical studies in their speciality. Access to university has hitherto been reserved for holders of the certificate of completion of secondary studies or pupils from the technical and vocational education sector

passing through the College of Technology. The creation of a second-stage technical training system which will take pupils up to a certificate of technical education comparable with the baccalauréat technique in France or the Fachhochschulreife in the Federal Republic of Germany seems more than ever necessary in this context. The current draft bill is designed to fill this gap in our education system by enlarging the scope of educational opportunity in the field of technical education; this it will do by adding a final stage which will take students through to the 13th year and prepare them for higher education.

In the Grand Duchy, holders of the completion of second-stage technical studies diploma will be able to continue their studies at a future Higher Institute of Technology which will replace the present College of Technology.

The present College of Technology, set up by the law of 3 August 1958 and organized under the provisions of the grand-ducal regulation of 15 December 1971, offers a four-year course. Starting from the level of the end of intermediate studies, that is to say from an 11th-year class, the course culminates, at the end of the 15th school year, in the engineer-technician's diploma.

The future Higher Institute of Technology will cover the 14th, 15th and 16th school years. The present 12th and 13th-year classes will be integrated into the final stage of second-stage technical education and success will be marked by a "maturity" diploma, giving the same rights, from the technological point of view, as a completion of secondary studies diploma.

The principal reasons behind this proposed reorganization are as follows:

The engineer-technician's diploma awarded by the College of Technology is generally speaking considered to be equivalent only to a certificate of completion of secondary studies, just as were in the past the higher technician's certificate in France and the qualification of engineer in the Federal Republic of Germany.

But a few years ago our neighbouring countries set up new structures. They now offer courses more like those for training qualified engineers, courses which differ more distinctly from those for training technicians.

These countries make the "maturity" certificate the starting-point for these types of training, giving the courses the character of higher studies or university studies.

Luxembourg has not failed to follow this development as far as it has legally been able to do so and has adapted its curricula and teaching methods to that end. At the present time one can say that the standard reached by engineer-technicians coming out of the Luxembourg College of Technology is already more or less on a par with that of a diplômé from a French University Institute of Technology or graduiertes Ingenieur from a German Fachhochschule.

Nevertheless, in the absence of an appropriate legally established structure, official recognition of the equivalence of standard and of the duration of training leaves much to be desired, whether in relation to acceptability for employment purposes and admission to classification as engineer-technician or in relation to the general admissibility of Luxembourg students to colleges abroad.

One of the principal objectives of the draft bills in question is therefore to create academic structures comparable with and equivalent to those existing in our neighbouring countries and to do this by introducing a "technical maturity" certificate and recognizing that engineer-technician courses constitute higher education.

It goes without saying that such structural considerations are prompted by the same desire to upgrade the system as is behind the draft bill establishing a second-stage technical education system. The essential aim in view is to adapt our academic structures to the needs of training which, whether at the second stage or at the "tertiary" level, are emerging as a result of modern conditions at home and developments abroad.

Two concerns lie at the root of the two draft bills: to stress the importance and the value of technical and vocational education, indeed to upgrade it to its true status, and to give this part of the education system clear, precise, well-defined and consistent structures, from the preparatory stage right through to the level of higher education. These concerns are, incidentally, supported by the professional bodies involved and by the opinion of the Council of State. For its part, the Chamber of Trades, in its opinion, lays stress on the fact that "it is the aim of national educational policy, quite rightly, to try to boost vocational education in order to give all social groups and in particular young people intending to follow mainly manual trades a more equal opportunity of social advancement. This is the reason why it gives vigorous support to all efforts towards improving vocational education, training and further training. The Chamber of Commerce, on its side, hopes that "all those with an interest in vocational training, at whatever level, will be ready to discuss, prepare and implement the indispensable improvement of vocational training and the upgrading of apprenticeship".

At the present time work is already in progress at the Ministry of Education and in intensified discussions with the interested parties, ie the professional bodies, on redefining the content of the various training systems which are to be restructured by the constitutional law mentioned above. The work relates to the following divisions and the following matters:

a) Agricultural education

During the past year the content of agricultural education has been criticized on several occasions, rightly or wrongly. The moment has surely come, now that the present content of agricultural education has been in force for five years, to subject it to a fundamental revision. As with all the other training avenues, it will be a good thing for agricultural education to be considered in close collaboration with experts from the profession. Thus it is the intention of the Ministry of Education, which is responsible for

agricultural education, to organize in the near future a "round table" meeting between representatives of agricultural education and the farming world to start discussing a reform of the content of agricultural education for both boys and girls.

b) Industrial apprenticeship

Discussions with the Chamber of Commerce and the Chamber of Labour have resulted in several agreements of principle which will serve as an introduction to the reform of industrial apprenticeship and will determine the main lines it will follow.

In order to take account of the valid comments and criticisms expressed by the Chamber of Commerce and the Chamber of Labour about the present recruitment system, the reformed industrial apprenticeship system will have as its foundation a basic training in a 9th year class with a slight vocational bias of the kind envisaged in our draft bill for the general reform.

The technical complexity of mechanized production processes is making new demands on industrial training.

Therefore the training curricula, procedures and methods are now being reviewed and modified accordingly. The practice of having 16 weekly classes in the general and vocational theory day-release courses instead of 12 will progressively become the general rule. It has already been introduced for the final-year classes. This extension of hours spent in the classroom will not be used entirely for introducing new subjects called for by technological developments but will also be used for dealing with the rest of the subject-matter in greater depth.

A special committee composed of teachers and representatives of the two professional bodies responsible will undertake a revision of the theoretical curricula of the 9th, 10th, 11th and 12th year day-release classes and the curricula of practical workshop exercises, which will be co-ordinated and

synchronized with the vocational theory curricula taught in school.

A new subject called "Safety and hygiene at work" will be introduced progressively into all the industrial training systems; it is already taught in the iron and steel industry. We think that we shall be able to reduce the number of accidents at work appreciably by this measure.

In 1977 a consultative committee will be set up at national level composed of representatives from firms with apprentice workshops, from vocational teaching establishments, and from the Chambers of Commerce and Labour; the committee's task will be to determine ways of adapting industrial training to the latest requirements and to promote the harmonization of training in the craft and industrial sectors.

c) Commercial apprenticeship

Plans to reform commercial training are currently under study. Having seen the first conclusions and opinions, one can already say that in the commercial sector the development of organizational techniques and technology are also posing new demands to which commercial and administrative training must respond if firms are to be assured of the supply of qualified staff which they will require in the economic world of tomorrow.

It goes without saying that this sector of training will also be harmoniously integrated into the scheme of general reform; it will cover the training of sales personnel, shop assistants, decorators and designers, clerks, book-keeping assistants, and administrative and commercial staff.

The needs of the future will mean that practical work in firms will have to be carried out systematically on the basis of theoretical knowledge acquired through vocational teaching and training linked to concrete reality and to the inherent dynamism of this economic sector.

d) Studies for the hotel trade

A working party on the restructuring of hotel-keeping studies set up within the Ministry of Education has taken barely two years to produce a draft plan for the reform of this apprenticeship sector, working closely with representatives of all interested parties.

The planned reorganization envisages the existence of several vocational training routes better adapted to the capacities and aspirations of the candidates on the one hand and the requirements of working life on the other, while seeking to cut down the excessive rate of failure and abandonment in this sector in future.

The reform of the College of Hotel-Keeping at Diekirch falls into this context. In future, admission will be from a 9th-year class and the College of Hotel-Keeping will have three sections with different durations, levels of studies and teaching methods: a hotel-keeping section, a cooking section and a service section.

The training curricula will be planned so that transfer from one section to another will be possible in certain circumstances.

By introducing appropriate sections and curricula, it should be possible for the reorganization of the College of Hotel-Keeping to keep the training fairly comprehensive whilst at the same time making matters easier for students by giving them more chances of success through offering them a kind of specialization more in line with their aspirations and their mental ability or physical aptitude.

However, it will be necessary to avoid pushing specialization too far and making it start too early, for obvious pedagogic, social and economic reasons.

An ad hoc committee has been set up to draft the details of the planned reorganization. The committee is composed of the following members: delegates from the professional bodies involved, representatives of HORESCA, representatives of the College of Hotel-Keeping, and officials from the Ministry of Tourism and the Ministry of Education.

II. Towards a reform of the mastership examination in the craft sector

During the past few years there has been a remarkable development in the training system for mastership in the craft sector. In brief, this has taken the form, quantitatively, of a considerable increase in the number of young craftsmen attending the three-year preparatory courses (665 in 1971/72, 1044 in 1976/77) and, qualitatively, of an extension of knowledge and a progressive rise in the standard of the mastership examination.

Some of the measures taken in the recent past, which can be said to have been either the cause or the consequence of this great leap forward, should now, after their start-up and testing period, be adjusted, co-ordinated and cast into a more precise form.

What is needed is to introduce a formula for preparation for and admission to the mastership examination which will constitute a better response to certain economic, social and technical circumstances and requirements and which will take due account of certain prospects which are opening up in the craft sector. It will also be necessary to give the present mastership diploma or certificate a foundation suited to the vocational aspirations of its holders as well as to economic realities in general and the structural development of the craft sector in particular.

Among the considerations relevant to the undertaking of this reform and adaptation, one can mention some which on their own underline the complexity of the measures to be planned or consolidated:

- a. The concentration, or rather the growth, of craft enterprises in different legal forms, the movement towards specialization in economic activities within firms or within the ranks of different branches of trades, the multiplication and diversification of the tasks expected of the craftsman,

whether as head of his firm, as technical manager of part of the firm, or as a highly skilled worker or supervisor in firms in the private and public sectors.

- b. The structural diversification of our economy and the growing requirements of labour with a sufficiently broad basis of skills to enable it to assume responsibility at different levels, to facilitate adaptation to technical and technological change and to ensure a continuous and efficient supply of replacement manpower.
- c. The creation of additional openings for young people who have carried their technical or scientific studies to a higher level and for people who have followed other training and educational routes.
- d. The need to effect concrete measures to upgrade craft work and the role of the master craftsman at all levels of his functions and all stages of his activities and to offer real chances of success to those who possess sound vocational knowledge and skill.
- e. The progressive establishment and the appreciable effects of the Community policy of freedom of movement, freedom of establishment, reciprocal recognition of qualifications, etc.

With considerations of this kind in mind, work has been done to prepare for a reform of the system of access to craft mastership in the near future. To this end, certain basic options have been defined, namely:

- a) Making the conditions of admission to the mastership examination more flexible by creating new openings for people who have followed different training and educational routes.
- b) Making other changes to the conditions of admission by lowering the minimum age for admission to the examination, currently 24, having regard to the level of skill and knowledge required for the various trades.

- c) Reviewing the curriculum of preparatory courses for the mastership examination with the aim of raising the level of knowledge and skill without erecting pointless obstacles but introducing into the subject-matter to be taught, as far as possible, certain nuances, certain proportions and certain points of emphasis in line with the demands of the varied activities of many craft trades.
- d) Reviewing the volume and content of the examination syllabus and making them accord better with the curricula of the preparatory courses.
- e) Making the examination conditions as far as possible less stringent in the case of a master craftsman who wishes to change from one trade to another more or less allied trade.
- f) Making the present system of preparatory courses and the split examination compulsory and determining the cases in which exceptions to this general rule should be allowed.
- g) Studying the possibility of introducing an examination system which would allow candidates either to obtain their master's certificate directly by the present procedure or to obtain it via two intermediate steps which could be reached on the basis of a well-defined training and examination curriculum, one of the stages being designed to meet the vocational qualification requirements of a master craftsman empowered to train apprentices and the other stage being designed to meet the qualification requirements of a master craftsman wishing to manage a firm. What would be involved would be a system of "accumulation" in stages of diplomas fulfilling the vocational aspirations of the candidates and opening up avenues of vocational and social advancement better adapted to the realities emerging in both the economic and technical field and also in the training of apprentices and in the field of the right of establishment.

To implement measures going in the direction of the options indicated above, some modifications in the present legal provisions will be necessary; the preliminaries for such changes have already been set in motion.

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