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Modernization in Vocational Education and Training in the Latin American and the Caribbean Region

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Foreword

Providing an overview of the current situation of vocational training in Latin America and the Caribbean endeavouring to single out the main transformation and innovation aspects occurring therein, necessarily implies approaching the matter from different angles.

In itself, vocational training may be analysed from the point of view of its objectives, its methods, the organisational forms it adopts or the management and financing models it takes on.

But additionally, vocational training is also what has been described as a “crossroads”. It is so because it has the peculiarity of pertaining to the field of social science, by virtue of its potential contribution to integration and social cohesion, as well as to the realm of productive and labour policies, due to its functionality in attaining the goals of increased productivity and improved competitiveness. Furthermore, although it does not by itself generate employment, it is nevertheless of strategic importance for any active, labour market policy.

As opposed to what happened decades back, when vocational training was seen as a specific area reserved for specialists, it is at present included in the most diverse forums and in the considerations of various agents, and is a matter of interest to many disciplines. Its links with labour relations systems are studied, as well as its role in innovation, development and transfer of technology processes. Ways and means are sought to co-ordinate it efficiently with regular education schemes, under a concept of life-long or ongoing education.

It is for that reason that in this document we have opted for describing its current status from three fundamental angles:

- The institutional or organisational forms that vocational training has adopted throughout the region.
- An analysis of its links with labour, technological and educational structures.
- The processes of decentralisation and increasingly greater participation of many actors, with consequent innovations of different kinds in the new areas or spaces where vocational training is designed, negotiated and implemented.

Along these lines, each one of the three main sections of the document focuses on these three angles to describe and interpret the present reality of vocational training in Latin America and the Caribbean.

Finally, in the conclusions we try to draw the overall assumptions that can be made in this field that is as varied as it is dynamic.

I. New institutional picture of training in the region

Any attempt to describe the ways in which training is currently being structured and organised in Latin American and the Caribbean is inevitably more difficult and complex than it was in the past. Until at least two decades ago, a typology with only three categories was sufficient to represent, in an approximate manner, what was going on in the field of training in most of the countries. The typology was as follows:

- Countries where training was centrally designed, planned and implemented, by a public body, formally dependent on the Ministry of Labour, with tripartite management, financed by a specific levy on payrolls, of national coverage and with varying degrees of administrative and functional decentralisation. Such were, among others, the cases of Colombia (Servicio Nacional de Aprendizaje, SENA); Costa Rica (Instituto Nacional de Aprendizaje, INA); Ecuador (Servicio de Capacitación Profesional, SECAP); Guatemala (Instituto Técnico de Capacitación y Productividad, INTECAP); Honduras (Instituto Nacional de Formación Profesional, INFOP); and Nicaragua (Instituto Nacional Tecnológico, INATEC).

- Countries where training was dispensed by one or several entities with the same characteristics of the above, but managed by the main corporate organisations of the country. Such were the cases of Brazil (Servicio Nacional de Aprendizaje Comercial, SENAC, e Industrial SENAI); Peru (Servicio Nacional de Adiestramiento de Trabajo Industrial, SENATI); and Mexico (Instituto de Capacitación de la Industria de la Construcción, ICIC), and others.

- Countries where training was included among the structures of regular education, specially secondary technical education, without becoming a mainstream trend. Such were the cases of Argentina (Consejo Nacional de Enseñanza Técnica, CONET) and Uruguay Universidad del Trabajo, UTU).

Although it was not an exhaustive typology covering each and every case, the fact was that whatever was left out could be considered an exception. For example in Venezuela the Instituto de Cooperación Educativa (INCE) was a variant, since it was an autonomous body attached to the Ministry of Education, comprising a number of specialised sectoral institutes also connected to other public and private organisations; or else in Peru (Servicio Nacional de Capacitación para la Industria de la Construcción, SENCICO), attached to the Ministry of Housing. In Cuba, the Centro Nacional de Capacitación y Superación Técnica (CENSUT) is another example of a sectoral body dependent on yet another Ministry: the Ministerio de la Construcción.

Already at that time, however, this orderly and relatively simple institutional picture was beginning to show signs of change in the region. In Chile, although INACAP had seen the light as a public institution, as a result of the promulgation in 1975-76 of the Social Statutes for Enterprises and for Training and Employment, the role of training institutions was modified, and the Institute underwent a process of political, institutional and administrative transformation. It broke away from the State and began to act under similar conditions to those of other technical executing agencies recognised by governmental authorities. Simultaneously, the Servicio Nacional de Empleo (SENCE),

started operating in 1976 under the aegis of the Ministry of Labour and Social Security, as a regulatory, administrative and financial body of the national training system. This was by itself an anticipation of what would later become a regional phenomenon: the greater participation of Labour Ministries in the field of vocational training.

In a similar manner, the Manpower Secretariat (SMO) was created in Brazil under the Labour Ministry in the sixties. Its continuation is today the Vocational Training and Development Secretariat (SEFOR) that seeks to find a new form of State action, promoting the supply (both public and private) and the demand of training through various programmes. Different units and services quickly emerged within the Ministry to deal specifically with the subject.

Partly as a result of the programmes themselves implemented through Labour Ministries, aimed at promoting training at enterprises or targeting specific population groups, an overwhelming supply of private training started to grow, stimulated by a double incentive: public tenders, and training services that were tax deductible.

After these two new elements came into play, the above typology began to change drastically. Training institutions fulfilled the function of providing national guidance regarding policies for the development of human resources, and were at the same time hegemonic in implementing training actions; this situation began to falter. On the one hand, Labour Ministries took a leading part, sometimes displacing institutions, sometimes co-existing with them, so that their predominance declined. On the other hand, insofar as a private training offer emerged, their hegemonic role was put in question.

Considering just the appearance of Labour Ministries on the training scene as leading players, two further categories have to be added to the former typology:

- That of countries (like Chile) where the national public institution (INACAP) becomes a private body comparable to any other in the market -at least formally- and where the Labour Ministry (LbM), through a specialised service (SENCE) lays down the rules of the game in connection with training supply, offers special programmes for certain population groups and manages a system of tax incentives to encourage training demand.

- That of another group of countries (like Brazil) where also the LbM, through a specific unit (SEFOR), assumes a central role in the setting of guidelines for training and the development of human resources, manages training funds and conducts programmes for different populations, or promotes the implementation of training projects by other agents (like trade unions), along with the activities that the older institutions (SENAI, SENAC, SENAR or SENAT) continue to carry out.

The growing complexity of the regional training scenario does not come to an end here, however. In all countries of the region productive and labour players have shown a renewed interest in the management of funds and resources allocated to training. Many entrepreneurial organisations –as well as trade unions– have at some time or other questioned the way in which national training bodies were being managed. In some cases, criticism has led to processes of deep institutional transformation, it has adapted institutions to new challenges and requirements that had been raised (case of the INA of

Costa Rica). In others, the process culminated in a modification of the nature of institutions, which from public and tripartite turned into private and non-profit, managed directly by national or sectoral corporate chambers (case of INFOCAL, Bolivia).

A typology of organisational arrangements in Latin America and the Caribbean

The diversity and wealth of regional training experiences would justify a detailed, case by case description of the progress and innovations attained. Nevertheless, in order to develop a typology of what is currently happening in Latin America and the Caribbean we must necessarily observe a certain degree of abstraction that inevitably leaves out many of the specificities of a case by case analysis. Abstraction also implies adopting a number of criteria to gather examples from the different countries on the basis of common traits that have to do, precisely, with the way in which training is organised at national level. To be useful for building a typology, those criteria have to be restrictive.

Besides, in that task definition of the analytical unit is decisive for the categories that make up the typology. There are three alternatives that could be used for units: countries; organisational arrangements; and training players. We have opted for organisational arrangements as analytical unit, rather than the countries that have adopted them or the players on the training scene.

There are reasons for not having chosen countries or players. The first alternative – taking countries as analytical unit- has the drawback that apart from what has been called “predominant arrangements” there is a whole range of heterogeneous training offers with varying degrees of maturity and development. To design a typology covering all those possibilities is particularly difficult; if achieved at all, it may include too many categories with too few cases each, which would be more like a case by case description than a general classification.

In turn, the alternative of taking the players as analytical unit raises another type of problem. Although in countries where the training offer, both in terms of policy definition and operation, is in the hands of a single player, the task could be quite easy, the truth is that the model does not apply to many countries of the region. In fact, an updated and useful typology to understand what is going on in the field of training, has to account not only for existing actors but also –and fundamentally– for the roles they have taken on and the interrelations among them.

This does not mean, however, that it is not possible to make classification efforts on the basis of the two alternatives that we are discarding, with different criteria from our own.

In opting for organisational training arrangements as analytical unit, we have accepted two basic criteria regarding categories:

- First, a distinction between two levels within each one of the arrangements: (a) the level of decision-making on training policies and strategies and; (b) the operational level of direct execution of training activities.
- Second, specification of which are the players that in the last resort assume responsibility for the actions included in the two previous levels.

The organisational arrangements included here are, on the other hand, those that may be considered “predominant” in each country, on the basis of the coverage and impact they have within the training offer.

We must also make two comments concerning the final form of the typology and the distribution of countries within it. Firstly, in no way are we making a value judgement or trying to establish which kind of arrangement is “better” and which “worse”. The social, economic and political contexts in which they emerge are too complex to justify opinions that, to say the least, would be extremely rash. The various types of arrangements submitted here, have shown different drawbacks, hits and misses that we will not go into now. Secondly, there is a number of dimensions that we are not taking into account here, such as: quality of the training imparted, public or private nature of the bodies in charge of activities; management structure (tripartite, bipartite, State, entrepreneurial, trade union); financing schemes; degree of administrative and functional decentralisation; etc. There are at least two weighty reasons for this omission: one, including them would mean –once again– to build a typology requiring a category for every single case, that would be useless for the purposes of classification; two, all those dimensions are considered elsewhere in this document, in contexts that seem more relevant, or they are mentioned in the concrete clarifications justifying the inclusion of certain cases in some categories. The four resulting categories are:

A. Arrangements wherein responsibility both for defining policies and strategies and implementing direct training actions is concentrated in a single body, usually national or sectoral institutions.

This type of arrangement is embodied in the region by: INFOCAL, Bolivia; SECAP, Ecuador; INSAFORP, El Salvador; INTECAP, Guatemala; INFOP, Honduras; INATEC; Nicaragua; INAFORP, Panama; SNPP, Paraguay; SENATI and SENCICO, Peru; and INCE, Venezuela.

As already mentioned, over and above common characteristics regarding the organisational arrangement of training there are differences in other aspects. For example, in connection with management schemes, as in some cases they are tripartite institutions, and in other they are managed by entrepreneurial organisations. Although most of these arrangements are national institutions - covering production and service– sometimes they are sectoral bodies

However, these institutions constitute the training offer with the widest coverage in each of these countries, and the one that includes the greatest number of specialisations. They are also the arena where vocational training policies and strategies are defined and where most of the training is implemented.

B. Arrangements wherein the definition of strategies and policies is concentrated in a single body, which also plays a predominant role in execution of training actions, where it has the complement of shared management and collaborating centres.

Examples of arrangements of this kind are: HEART, Jamaica; INFOTEP, Dominican Republic; SENA, Colombia; INA, Costa Rica.

Up to a point, this category is subordinated to the previous one, insofar as each one of these institutions is the main player in the field, both regarding the definition of policies and strategies and the implementation of training action. The difference lies in that in these four cases, each institution seeks to find its place in the respective national training system, which also includes extra-institutional supply. They do so through various mechanisms such as: outside contracting of courses, accreditation of training activities and institutes, co-operation agreements, support to upgrading of training, etc.

C. Co-existence and interrelation of two predominant arrangements with different rationale. One of them is normally associated with Labour Ministries, that through specialised bodies define policies and strategies without ever implementing training action; training is carried out by a multiplicity of agents. The other one, associated to national or sectoral training institutions that may fall into the descriptions for arrangements (A) or (B).

Cases in this category are to be found in at least three countries: Brazil, Mexico and Uruguay:

- Brazil, where the LbM through SEFOR designs policies and strategies without implementing any actions (which are carried out by private agents, non-governmental organisations, trade unions, etc.) and the so called "S" system (SENAI, SENAC, SENAR, SENAT) characterised by two fold approach: on the one hand, designing training policies and strategies at their respective sector (manufacturing - SENAI; commerce and services - SENAC; agriculture - SENAR; transportation - SENAT), and on the other hand, implementing training programmes
- Mexico, where that coexistence is represented, on the one hand, by the Secretariat of Labour and Social Security through its National Office of Training and Productivity, and on the other by the Secretariat of Education through its Technological Education System (CONALEP, CECATI, CETI, CBTI, etc.).
- Uruguay, with the National Employment Office (DINAE) on the one hand, and the Council for Technical – Vocational Education (CETP-UTU), COCAP and CECAP, on the other.

The distinguishing characteristic of these countries is precisely the coexistence of both types of arrangement. But this should not lead us into thinking about separate, independent entities. Everywhere, the links and overlaps of the two arrangements are in a state of flux, which inevitably raises deep and enriching discussions about the present and future of vocational training in the respective countries. Some of the main items on the agenda of this debate are: ties between vocational training and technological secondary education; the development of national systems for the standardisation and certification of occupational competencies; management and financing schemes.

On the other hand, in nearly all these cases there are no “watertight compartments”. Quite the contrary; in analysing tenders for courses, and the mix of executing agents of programmes sponsored by Labour Ministries, we find large participation by training institutes belonging to the other predominant arrangement.

D. Arrangements wherein definition of training policies and strategies is wholly in the hands of Labour Ministries through specialised bodies, that do not carry out any training action. Implementation is assumed by a large number of agencies and players.

Cases in this fourth category, and specialised bodies performing the tasks described are: Argentina, the Ministry of Labour and Social Security, through the Secretariat for Employment and Occupational Training, and the National Office of Employment Policies; and Chile, the Ministry of Labour and Social Security, through SENCE.

Both in Argentina and in Chile there are specialised bodies under the aegis of the respective Labour Ministries that have, among other responsibilities, that of laying down the “rules of the game” regarding training supply and demand. Although financing is different, in both cases close links are established between training actions offered and active employment policies. This is done on the one hand by encouraging the demand of training by enterprises, to be implemented either with internal resources or contracting out services with executing agencies. On the other hand, training and employment programmes are designed, financed and managed for special groups, such as unemployed workers, young people, microenterprises, rural workers, ethnic minorities, etc.

The first conclusion that may be drawn from the current situation of organisational forms of training policies and systems in the region, is that they are far more heterogeneous than in the past.

The present diversity is significantly due to the plurality of agents acting in the training area in all countries. At a moment when national vocational training institutions are ceasing to be leading players in the supply of training, and Ministries of Labour, employers’ and workers’ organisations have appeared on the scene, as well as private training offers, the map of alliances and co-ordination inevitably changes.

This variety also expresses a different opinion as to which are the most efficient ways of conducting social policy and looking after the training requirements both of the productive sector and society as a whole. On the other hand, it echoes a discussion as to which ought to be the areas and forms of action by the State, what can and/or must be left to the forces of the market and – although more recently – what can be performed by civil society through its various organisational patterns.

The model based on a subsidiary role for the State emerges from a highly critical context of schemes that handed over responsibility for the design, planning and implementation of training policies to a national, public or para-state body. Such plans were denounced for their self-referral, for not paying enough attention to the demands of the labour market, for lacking a culture of evaluation of training results. Their national, centralised structures were blamed for a lack of flexibility to meet customised

training needs. Although such criticisms were aimed at vocational training systems, they fitted into a wider debate concerning the role of the State in general.

After a period of harsh faultfinding with the older model of vocational training institutions – mainly ideological criticism – several things can be seen at present. First of all, some characteristics of that former model are redeemed taking into account the historical moment when that model saw the light and grew. Secondly, it has been understood that national vocational training institutions are no longer the same and are all undergoing deep transformation processes. Furthermore, sufficient progress has been made to draw a balance of the virtues and shortcomings of the models that were proposed as their substitutes.

To begin with, it is a mistake to equate the continuity of the organisational model based on a large national training institution, to the persistence of a supply-side approach. All national institutions have substantially changed their action-guiding principles. They have developed more or less sophisticated mechanisms to deal with the demands of markets and societies.

Policies promoted by Ministries of Labour have contributed to swell the private training offer and have diversified the agents operating in a new market that has emerged, to a large extent, from novel forms of action by the State. This fact has allowed for the creation of more immediate and concrete co-ordination mechanisms between supply and demand, such as short, intensive courses to meet real needs detected in the market. Ministerial policies have also fostered the culture of evaluating training results, mentioned earlier.

The above traits maybe considered to be positive characteristics of the new models of training systems. Nevertheless, there are certain areas in which they cannot substitute for national training bodies. One of them is the need for any system to incorporate suitable mechanisms of curricular development and updating, as well as technical and pedagogic development. A capacity for storing knowledge and experience can only grow adequately in enduring institutional contexts, based on a medium and long-term strategic horizon, rather than in the framework of a fragmentary, institutionally weak training offer, whose vision of reality does not go beyond the immediate demand of firms and enterprises.

A second point to be made is that, although the market and its needs ought to be taken into account, they cannot be the sole guideline for vocational training systems and policies. Markets have short-term views and reasons which, if followed unconditionally, may lead to decisions apparently correct for immediate purposes but counterproductive in the long term. The necessary matching of training supply and demand at micro level must not be taken as a substitute for serious long-term policies.

In all the various types of organisational arrangements adopted by countries of the region, multiplicity and diversification of the training offer is a reality. Nowadays, preventing that diversity from turning into fragmentation is a significant challenge.

Regarding State policies for the training and development of human resources, there are a number of strategic guidelines about which countries of the region are trying to reach a consensus.

- First of all, the equity conditions provided by systems in connection with access to training opportunities. These constitute a fundamental key to ensure socially fair conditions for the employment and full integration of citizens into social and political life.

Expansion and diversification of the training supply greatly contribute to ensure training coverage as compared to policy models centred round hegemonic institutions. However, an increase in the number of suppliers does not of itself guarantee higher levels of equity. State intervention continues to be essential for correcting market slants, regarding both different population groups and economic sectors.

- Secondly, the co-ordination between training policies and economic and productive development policies aimed – among other things – at raising entrepreneurial and national levels of productivity and competitiveness.

This implies a search for the necessary convergence of the bid made by countries to succeed in adapting to the new conditions of a globalised economy, and the training policies that are every day more fundamental for such an insertion. Of particular importance are the links and synergy that may be established between training, innovation and technological development.

- Thirdly, ensuring the political and economic sustainability of efforts made in the training area itself. The advent of new organisational models in different countries meant in many cases the end of both the policy arrangements and financing schemes that had supported training for decades. There are countries where the national institution model survives, despite the fact that its management and funding arrangements have been severely questioned. Nevertheless, either through institutions, Ministries of Labour or intermediate solutions new relational arrangements seem to be emerging. They are based on the realisation that rather than a specialised field, training is an area for social dialogue, agreement and negotiation that has been gradually enlarged to include employers, workers, academic education, technological development, economic policies and labour relations systems.
- Finally, a multiplication of funding arrangements has become apparent in the region. On the one hand, the system of public financing for in-plant training subsists, with resources raised through para-fiscal levies with specific destination, side by side with public financing from the general Treasury. But new schemes have emerged like tax incentives, such as reimbursement of training expenses upon filing in tax returns (the case of Chile). Other combinations are also possible especially in connection with VTIs (vocational training institutions) that explore mechanisms to open up systems and make them more flexible.

Quality management

The Latin American and Caribbean scenario has been greatly modified in recent years. Over and above the economic, social and political reforms that have been set off, the growing exposure of national economies to international competition has resulted in more stringent requirements for those who design and implement vocational training policies.

The characteristics of economic activities and new social needs bring training to the fore owing to its capacity to include people, mobilise knowledge, create better conditions for employability and facilitate options for social dialogue.

However, the greater complexity of current circumstances has also exacted more strenuous efforts from training bodies to keep updated and offer services in accordance with demands. The last years of the millennium have also witnessed frequent modernisation attempts undertaken by training institutes, or imposed upon them by circumstances.

The gradual incorporation of new actors to the training supply, the availability of a mix of financing sources and the necessary relevance expected of training programmes are some of the factors that have led to the modernisation and transformation of training institutes. Methods of transformation and adaptation to change are nowadays priority items on the agenda of training bodies.

On the other hand, the users of training want to know about the best offers, those ensuring the greatest efficiency. Both employers and workers are looking for signs of efficiency. Financing providers are also interested in the best possible use of the funds they invest in training. Well managed institutes give them a social assurance of efficient public spending. The same can be said about funds from the private sector: they must go to bodies accountable for relevant, effective and efficient training procedures.

Hence that vocational training institutions should be interested in improving the efficiency and relevance of their activities. This has been recently reflected in their adoption of management mechanisms aimed at ensuring quality.

The trend is reflected in the adoption of management and participation measures using tools and actions intended to nurture a quality culture. Such measures - usually embodied in a rationale of ongoing improvement or in institutional modernisation processes - imply personnel training, identification of critical factors, spelling out of a mission and objectives entailing the qualitative upgrading of the institution.

Closely connected with modernisation processes, the total quality philosophy has been gaining ground as a highly valuable tool to bring about constant improvement, institutional education and the culture of a job well done. The adoption of a quality approach is evident in many of the activities implemented by training bodies.

Some of them take part in national mechanisms of evaluation and quality control for their centres and other operational units. They likewise participate in other evaluation systems. The National Training Institute of Costa Rica, for instance, was given top rating in an evaluation based on indicators carried out by the Costa Rican National Evaluation System (SINE) among 29 public institutions of the country.

Other VTIs adopt mechanisms, indicators or systems for classifying results in order to monitor the quality of responses. Such is the case of the evaluation system used by the SENAI, of Brazil, that grants Gold, Silver and Bronze awards to Model Centres of Vocational Education or National Technology Centres. The SENA of Colombia has also devised a system of indicators to measure the effectiveness and efficiency of its Training Centres and regional Centres. Along similar lines, and in accordance with its own modernisation process, the INTECAP of Guatemala has adopted what it calls "philosophy of the 5 'S's' to promote a quality culture".

There are institutions that have become involved in national quality drives and work in association with national standardisation and accreditation bodies. Such joint work has resulted in the accreditation of the Technological Centres of training institutions to offer services in metrology or testing, as required for compliance by various products with quality standards in national and international markets. Such is the

case of the SENAI National Technology Centres (Brazil) and the SENA Technological Development Centres (Colombia). VTIs have provided training and consultant services to firms for the implementation of quality control systems. This is a service of increasing frequency rendered by institutions, like the SENATI of Peru, whose Service Centres for Small and Medium Enterprises deliver training with an emphasis on quality.

At the same time, VTIs have sought for an external quality guarantee, verified and audited by some outside organisation. They have usually resorted to the ISO 9000 standards.

New experiences in certified quality management can be detected from Central America down to the Southern Cone. The following are some examples:

The National Training Service (SENAI) of Brazil provides one of the first examples recorded in the region. It started in the State of Santa Catarina with the application of the "Five s's Programme" and subsequent ISO 9000 certification by the German firm TUV RHEINLAND. The regions of Paraná, Espírito Santo and Pernambuco have also been given awards of the ISO series. More recently, the SENAI National Direction at Brasilia adopted a quality control standard (ISO 9001) that was audited by the BVQI which resulted in a recommendation to carry out certifications according to the following scheme: Planning, Development and Co-ordination of Strategic Projects and Operational Improvement.

The SENAI also has an internal system to acknowledge the quality of its Training Centres whereby they are given – after suitable evaluation – the title of "Model Centres of Vocational Education" or "National Technology Centres". The system is based on the criteria of the National Quality Programme, which include, among others: Management of Processes, Management of People, Leadership, Strategic Planning, Focusing on the Client and the Market, Results and Information Management. There are three progressive levels of compliance, called Bronze, Silver and Gold in ascending order.

In Peru, the National Industrial Training Service (SENATI) has been awarded the ISO 9001 quality standard by the Veritas Quality International Bureau. After an intensive nation-wide drive, this VTI obtained this certificate in all its Zone Offices for its Programmes of Vocational Training and Education, namely, Dual Apprenticeship, Training of Employed Workers, Industrial Technicians, Industrial Managers, Industry Officer, Engineering Technician, Ongoing Training, MultiMedia Training, Computer Science and Employment Exchange. SENATI's Technical and Non-Destructive Tests Services have also been certified, as well as its Advisory Services to Small and Medium Firms in the Lima-Callao area.

After conducting a number of activities aimed at institutional modernisation, which among other things favoured its acceptance of a mechanism for the accreditation of other public and private training bodies, the national Training Institute (INA) of Costa Rica embarked upon a quality assurance process, and achieved in 1998 certification of its Accreditation Unit by INTECO and by the Spanish Standardisation and Certification Association (AENOR), in accordance with the ISO 9002 Standard.

The Council for the Standardisation and Certification of Occupational Skills (CONOCER), of Mexico, was certified in February 2000 by Lloyd's Register Quality Assurance (LRQA), in recognition of its adoption of efficient systems that are proof of its capacity to ensure the quality of its processes in the design, production and distribution of its products, as well as in the rendering of associated services.

The National Service of Training and Employment (SENCE) of Chile was the first public department in that country to obtain a certification of the ISO 9000 series. In effect, in January this year it was awarded the Veritas Quality International Bureau (BVQI), testifying to the fact that "the process of constitution of Technical Training Organisations in the Metropolitan Region, complies with the ISO 9002 quality requirements".

In its modernisation programme, the Technical Training and Productivity Institute (INTECAP) of Guatemala adopted a number of measures to develop the "total quality culture" within the organisation. They include a clear-cut definition of the institutes' vision and mission, and implementation of the programme known as "the 5 s's", a management philosophy that lays down the foundation for a total quality policy.

SENAC of Brazil: growing with quality

A retrospective analysis of the performance of the SENAC of Brazil shows the beginning of a new and important phase in the recent history of that Service.

Upon embarking in 1999 on a bold innovative period, the SENAC reaffirmed its image as a reference body in the area of Vocational Education for commerce and services.

As regards output, it promoted the training of 1,889,892 professionals through an education network made up by 663 schools and 50 mobile units, distributed throughout the country. By percentile tuition and distance education, SENAC activities reached out into 2,067 Brazilian municipalities.

Besides the above methods, the SENAC has deployed a comprehensive strategy to get vocational training and civic education topics to the population at large, in all corners of Brazil. Through television programmes, such as the one broadcast every week by the Rio de Janeiro University Channel (UTV), which is retransmitted by Channel 16 of the NET, occupational techniques and experiences in different areas are divulged.

Complementary to this, the radio programme “SENAC Space” has proved that talking on the air about vocational education and matters of interest to citizens can be a great success.

Produced by the National Office of SENAC, the programme is broadcast weekly over a network of more than 600 radio stations throughout Brazil. These figures show the growing interest of broadcasters and listeners in general for the subjects presented. This acceptance is due not only to the quality of the programmes but to the constant effort made by the Institute to identify its target audience, work in consonance with it and gauge the degree of satisfaction of its members.

One of the great challenges of “SENAC Space” has been to broach subjects that may be of interest to listeners in all parts of the country. The solution was to deal with matters affecting the population in general, such as education, health, the labour market, defence of the consumer, the environment, etc.

To detect listeners’ needs and correct the programme’s approach, “SENAC Hour” asks questions in the form of a quiz with prizes and rewards.

Apart from offering listener participation, the programme tries to find out the opinion of the radio stations that put it on the air, by means of evaluation cards.

The answers to these questionnaires have unveiled positive facts and very favourable opinions about this SENAC initiative. Stations are interested in continuing to broadcast the programme, due to the quality of the production and the importance of the topics discussed.

All these recent activities that the SENAC has undertaken show that it is possible to grow with quality.

The INTECAP of Guatemala is modernised

Towards the end of 1998, the Board of Directors of the INTECAP appointed a committee to modernise its structures. In March 1999, that committee submitted a Plan for the Modernisation of the Institute, which comprised the following:

- guidelines for a modernisation of INTECAP.
- guidelines for organisational restructuring: schedules at Unit, Division and Department level,
- chronological table for implementing modernisation.

The following aspects were taken into account in the project:

1. Changes that have occurred in the training process, both in values and support.
2. Redefining of concepts of mission, vision and values.
3. Redesigning of technical and administrative procedures.
4. Underlining the importance of orienting the Institution towards total quality
5. Putting in place a horizontal organisational structure

The timetable for implementing modernisation included 7 subprocesses:

Subprocess N° 1

Consisted of: Appointment of Heads of Division, Unit and Department, as well as other officers that, pursuant to the Organic Law, must be designated by the Board of Directors.

Purpose: to have the human resources required for comprehensive institutional processes.

Subprocess N°2

Consisted of: Preparing for the adoption of a total quality culture.

Purpose: Developing an organisational culture that may promote occupational patterns leading to an overall vision of identification with the Institute and generating values and attitudes towards work that may allow INTECAP to achieve total quality management, and constant improvement.

Subprocess N° 3

Consisted of: Redesigning main institutional procedures.

Purpose: that those who will be in charge of institutional procedures may – with the support of the various Heads involved and the counselling of reengineering experts – analyse the status of institutional procedures, and propose that the Heads of the INTECAP Planning Division and Technical Co-operation Unit, respectively, be in charge of consolidating such procedures.

Subprocess N° 4

Consisted of: Redefining the organisational structure of the Institute and outlining a pilot plan for implementing it.

Purpose: Arranging for a final organisational structure of INTECAP in keeping with the new procedures to be implemented and allowing for teamwork in order to improve the quality of services and to meet the needs of users.

Subprocess N° 5

Consisted of: Managing human resources.

Purpose: Having appropriate human resources for the posts which, in accordance with the Organic Law and the Agreement on Labour Conditions, are to be filled by the Management; defining job profiles and wages policies in line with the new organisational structure.

Subprocess N° 6

Consisted of: regionalisation.

Purpose: Division of the national territory into different regions, taking into account geographic, demographic, economic, social and infrastructure factors, with a view to the decentralisation and delegation of institutional activities.

Subprocess N° 7

Consisted of: Consolidating the institutional image.

Purpose: Laying down the groundwork for INTECAP to build its institutional image *vis-à-vis* its users and the population at large.

The main achievements of this institutional modernisation process have been:

- Determination of a strategic management for INTECAP.
- Adoption of a more adequate regionalisation.
- Redesign of technical and administrative procedures.
- Creation of a more dynamic organisational structure.

The governing role of INFOTEP in the development of a National Vocational Training System for Productive Work in the Dominican Republic

Based on the tripartite system as a model of collegiate management, INFOTEP has made remarkable progress in developing a National Training System for Productive Work. Different integration and participation mechanisms have been devised involving important elements in the System itself and its environment, as well as various areas of the Institution.

Noteworthy among such mechanisms are those for the integration of productive sectors (Consulting Committees, Technical Commissions, Planning and Evaluation Groups, etc.); the ones for integrating together the System's components and providing inter-institutional co-ordination (Centres with independent management, Joint Management Centre, joint development schemes with international organisations and agencies); mechanisms supporting operation of the system and the Institute itself (Control Committee, Budget Committee, Revenues Committee, etc.); and provisions for regional strategic alliances through agreements and arrangements (Co-operation Agreement among Vocational Training Institutions of the Central American Isthmus and the Dominican Republic, Agreement with the CONOCER of Mexico, etc.)

Such mechanisms have made it possible to expand and supplement the tripartite management model by multiplying levels of co-ordination and participation of social and economic sectors. It has improved the efficiency and effectiveness of the institution by making full use of the installed capacity of collaborating centres, incorporating new training strategies and methodologies in order to meet the demand of productive sectors that are faced with a new social and economic scenario, characterised by high competitiveness.

A systematic approach in the management of training at the HEART/NTA

During the workshop "Training for the Management of Training Institutes" held at Kingston, Jamaica (March, 2000) the HEART/NTA presented its systemic approach which includes five main steps:

- Identification and assessment of needs
- Grounding (preparation)
- Delivery of training
- Evaluation
- Follow-up

The **Assessment** process is based on the recognition that training must be aimed at meeting the needs of the demand and that it should be cost-efficient. This calls for an analysis of the labour market and the current situation of firms and enterprises, as well as their future prospects. The existing training capacity to meet demands should also be studied; this includes available teachers, curricula and facilities. A result of all this may be the necessity to develop new materials or appoint educators with the proper qualifications.

In the **Preparation** phase training curricula are fashioned that make it possible for participants to go from their initial situation to that required for their entry into the labour market. Curricula should comprise definition of training objectives, evaluation methods, contents and teaching methods proposed.

Besides curricula, training materials are required such as textbooks, manuals, audio-visual aids. Other training aids are also necessary (posters, transparencies, etc.).

Teachers must be prepared to make full use of curricula, teaching materials and aids, apart from being technically competent to impart training. The right kind of physical facilities must also be contemplated, and the possibility for trainees to get experience in real-life work conditions.

Actual **Delivery** of the training may be effected through a combination of methods. Training contents may thus include self-training, distance training, and on-the-job practice; the combination chosen should consider cost-efficiency criteria.

The purpose of **Evaluation** is to weigh the results attained by the programme against its initial objectives. The reasons that may have caused detected deviations are identified in order to take corrective measures. Evaluation has a training ingredient when it is carried out from the beginning and throughout the programme to keep it in line with the proposed objectives. A final evaluation is implemented at the end of the programme to check out whether training achievements coincide with initial objectives, and assess the efficiency and effectiveness of the whole process.

Impact evaluation is carried out some time after the end of the programme (at least six months later), to check on its effects on participants' performance, cost-benefit criteria, quality and productivity upgrading, labour satisfaction amelioration, etc

The results of evaluation lead to a review and improvement of future programmes, as well as to decisions about the implementation of new programmes.

Follow-up is an ongoing process to ensure that the results of evaluations are effectively taken into account in all decisions regarding the modification, cancellation, improvement or design of new programmes. Corrective measures ensure the efficiency of programmes; although they often require additional funding, it is usually more costly not to correct than to do so when necessary..

Source: Training: a Systematic Approach. Management of Technical and Vocational Education and Training. HEART/NTA. March 2000.

Selected TVET Highlights from the Caribbean

A number of changes have taken place over the past few years to challenge vocational training institutions in the Caribbean. The results have led to a more proactive TVET system which is being reflected at both national and regional levels in vocational skill delivery, skill qualification recognition, and the promotion of greater institutional linkages.

Major changes include a shifting of training delivery from the public sector to the private sector; lessening of opportunities for low skill low income jobs; strengthening of policies on human resource development that encourage people to participate in their own development; and a move to a CARICOM single market and economy. Each of these issues is not only redefining the workplace but is also changing the way people are preparing themselves for employment.

Employment Changes

- The impetus behind the changes in the operation of technical vocational education and training (TVET) institutions is part of a broadening strategic vision in areas related to employment-driven training. Such a vision is being articulated in the way people seek meaningful work through support from TVET institutions. The view in the region suggests that jobs need to offer both economic rewards and life fulfillment, through self-expression and dignity.
- In particular, this influence is being shaped by major organizational activities reflected in the development of TVET coordinating units, i.e. National Training Agency (NTA). Such Governmental organizations at the national level are created with a purpose of narrowing the skill gap by promoting a seamless educational infrastructure in collaboration with trade unions and employers' organizations. Such agencies are represented in the Caribbean by the HEART Trust/NTA in Jamaica, the National Training Agency in Trinidad and Tobago, and the Technical Vocational Education and Training Council in Barbados. The establishment of similar NTA type agencies is under discussion in Saint Lucia and Guyana.

In addition to the formulation of NTAs in Jamaica, Barbados, and Trinidad and Tobago, the agencies are in the process of developing a competent workforce through establishing national vocational qualifications that are competency-based. Developed through tripartite initiatives, competency-based vocational qualifications are benchmarked internationally to ensure the end product meets the performance requirements of industry. The NTAs are also collaborating to formally recognize each other's national skill competencies/qualifications and have entered into discussions on formulating at some point a regional Caribbean Vocational Qualification (CVQ). Together, these innovative initiatives have anticipated the current discussion by CARICOM member states regarding the free movement of skills and the implementation of Protocol II, while focusing on common vocational standards and accreditation.

Other selected actions and good practices by TVET providers in the region to address the HRD issues identified above include:

Trinidad & Tobago - The National Training Agency

- Thirteen national Occupational Standards launched in April 2001 in such areas as Welding, Food and Beverage Services, Information Technology, Industrial Instrumentation, and Process Operators. To date over 22 draft standards have been prepared by industry training organizations;
- A web page enabling readers to search for information on vocational qualifications, industry partners, and accreditation standards among other topics has been established. Contact < www.ntatt.org >;
- A national skills bill to facilitate funding for workers wishing to improve their knowledge and skills is currently being planned for introduction to Parliament.

Barbados - The TVET Council

- The Council plans to introduce shortly Barbados' National Vocational Qualifications and is working with lead bodies in occupational areas of Information Technology, Tourism, Hospitality and Customer Service. The outcome is expected to result in National Vocational Qualifications that meet the local needs in Barbados while benchmarked against international requirements as well.
- The Council administers the Employment and Training Fund (ETF) that provides a grant and loan programme to support comprehensive labour force training and skill upgrading.

Jamaica - The Heart Trust/NTA

- Heart Trust/NTA serves as a model in developing and implementing competency-based skill standards and qualifications in the Caribbean. A list of curriculum packages and ordering information can be obtained via e-mail at heart@uwimona.edu.jm
Web page <www.heart-nta.org>
- Heart Trust/NTA, through its instructor training institution, Vocational Training and Development Institute (VTDI), will in September launch a four year Bachelors Degree in Education specializing in Technical and Vocational Education and Training. For additional information, fax (806) 977-4303.
- Sharing of information and expertise to vocational agencies in the region has helped to make the Heart Trust/NTA a regional focal point on TVET issues. An example of this support was recently typified in the visit of a St. Lucian delegation to the HEART Trust /NTA to experience the Jamaica's tech-Voc model for adaptation in St. Lucia.

St. Lucia

- Plans are underway to expand Technical and Vocational Education through a network of National Skills Training Centers by recent legislation of the TVET Council.

Information Exchange

A source of TVET information in the Caribbean is the International Labour Organization's Caribbean Office web site. With over 100 TVET publications listed and still expanding, the site is worth a monthly visit. <www.ilocarib.org.tt>

Funding of vocational training

During the nineties, and specially in the last few years, the financing of Vocational Training has become a very important item on the public policies agenda of the Latin American region. Until the preceding decade it had not been a priority, for several reasons:

- Two large vocational training and/or technical education systems had become consolidated: a) that of Vocational Training Institutions (VTIs), with a tripartite regime and a financing mechanism via para-fiscal levy; and b) that of Technical Secondary Education (TSE) integrated into regular education systems, with their respective variants from one country to another, and their evolution in time. These two systems coexisted in most countries, with predominance by one or the other, according to the case. Both were (still are) financed with public resources, either through appropriations in national, provincial or municipal budgets in the case of TSE, or through para-fiscal levies in that of VTIs which –regardless of their source and of the greater or lesser participation by private agents (employers and workers) in their management– are official entities acting in the public sphere, that were created by the State through governmental and/or legislative acts (an atypical case, due more to historical or cultural-

juridical reasons, but not invalidating this general picture, is that of the Brazilian “S System”).

- Despite the fact that –as has always been the case– the direct effort of enterprises to train their manpower was obvious, the relative stability at the time of technological foundations, and of the organisational structure of the productive apparatus, turned training into a rather secondary activity, with a predominance of informal practices, that did not in general entail significant investments.

- Private offers already existed of technical education and occupational training, but their scope and incidence were limited, so that cumulatively their incidence was only relative, both in terms of investment and number of paying customers.

- The above supply was basically sufficient and adequate for the skilled labour needs of economies whose change dynamics were weak and that enjoyed the protection of tariff barriers against the competitive pressure of international trade. It was also sufficient to meet the populations’ demand for training and technical education services because, although demographic expansion was in full swing, demands for educational services converged upon general secondary courses, while at the same time the offers of VTIs and formal TSE systems abounded.

But as already pointed out, the situation changed drastically in the last decade. We need not dwell on the factors that caused the change: the internationalisation of trade, the acceleration of organisational and technological developments, the flexibilisation of labour markets, the emergence of lifelong education as a paradigm in the occupational itinerary of workers and in the processes of productive development, etc.

These factors have brought the training of human resources –and vocational training in particular– to the forefront of the agenda of development policies, which in turn has cast doubts about the capacity, relevance and importance of traditional public structures of training for work and has favoured the emergence of other offers, some of them already existing in a small scale, others quite novel and the result of economic, technical and social evolution.

Together with this questioning of the capacity of traditional, centralised public services to respond in an efficient, pertinent and timely manner to the needs of the productive apparatus and the demands of populations, came recognition of the emergence of a market of labour competencies with a variety of suppliers – some of them public but mostly private. They provided a decentralised offer: non-formal, private training bodies, expanding training services in firms and enterprises or at institutions financed by them, technological development centres combining innovation and transfer of technology through training, NGOs that provided training, etc.

This means that at the same time that a great amount of public resources continues to be poured into traditional systems, private investments grow in volume and diversity (unfortunately, there are no reliable studies to quantify them, even approximately). In any event, the economic drive does not seem to be lacking either by the State or enterprises and workers, in support of initial or ongoing training. Investments are made:

- By the State, in financing its TSE structures and –in the case of VTIs– in the application of resources from para-fiscal contributions.

- By enterprises, in in-house training, external contracting or other outsourcing mechanisms.

- By private training suppliers.
- By people who buy services in the private market.

We might draw the conclusion that the main problem in approaching the subject of financing of vocational training is not so much the volume or source of funding, but the rationalisation of this cumulative investment. This implies rationalising the supply of training, including quite naturally the reform of traditional structures.

This reform, however, is no internal matter of traditional systems: it pertains to their co-ordination and synergy with the new suppliers, and depends on the fact that they must link up with systems that had been relatively independent, like elementary and post-secondary technological education. In other words, we are saying that the problem of financing is subsidiary to that of institutional organisational arrangements, which in turn must be reconsidered by players.

The problem can be approached in many ways, and each way will appear differently in the various national contexts. In Latin America there are several possibilities that we enumerate below in a purely exploratory fashion. Different models could be derived to deal with the matter of financing in the more systemic context of national offers of occupational training:

- A. Subsistence of systems of public financing of training at enterprises, with resources obtained through levies or para-fiscal contributions with specific allocation. Allocation is not always direct and exclusively for vocational training; sometimes it covers areas like the re-adaptation of workers laid off as a result of industrial restructuring or State modernisation, which include occupational retraining, managed now by new agents, like Labour Ministries.
- B. Subsistence of the model of public financing of training at enterprises through formal TSE systems. The new aspect of this is the growing importance of decentralised administrations (federal states, provinces, departments, municipalities) in the financing of this service, either with their own resources or with transfers from the national budget, pursuant to decentralisation policies.
- C. Emergence of systems of tax incentives, whereby enterprises recover their expenditures when they file in their tax returns. Such is the case of Chile, where enterprises that spend on training can get back their expenses when they pay their income tax, up to a ceiling of 1% of the total payroll.
- D. Emergence of a number of permutations, particularly in VTIs, using mechanisms to open and flexibilise procedures. For example Brazilian enterprises can have exemption agreements with SENAI so that instead of paying in to that institution, they can use directly part of their contribution. But this must be authorised by SENAI, and that part can only be used to contract courses with it. In Colombia, enterprises can co-finance in-house training plans with SENA, and get reimbursements equivalent to 50% of their para-fiscal contributions.

In various ways, some promising financing strategies are becoming apparent in the region, as they seem to fit in with new socio-economic and institutional developments.

There are three main aspects:

- The setting up of alliances or associations of the State with private executing or intermediary agents, to support training. In this way enterprises taking advantage of tax exemptions (the Chilean case), VTIs, managing authorities of TSE or official agencies in charge of training programmes targeting special populations, as well as Labour Ministries, Social Solidarity networks, and others, are free to contract training services with a wide range of suppliers. This breaks away from the prevailing merging of financing and execution of training services, and promotes the autonomy of regulating, financing and executing bodies. In summary, it entails a radical reshaping of the traditional scheme of public and private domains in occupational training.

- The diversification of State agents in vocational training: they are no longer confined to Ministries of Education and VTIs; new players have entered the field, like Labour Ministries, Social Welfare Secretariats, or Solidarity Funds, that have become public financing sources. This has been aided by the tendency to engage public and private agencies, with which the traditionally large investments to launch training services seem no longer necessary; advantage is taken instead of private initiatives and resources, whether profit or non-profit making.

- Greater participation by firms and enterprises as investors and/or executing agents in the training of their workers.

All this has led to the creation of veritable training markets, in which multiple public and private suppliers compete with each other. This trend is very favourable to stimulate the relevance, flexibility and efficiency of training, but there is a risk that market mechanisms, as well as greater leadership by enterprises, may result in a training offer aimed at those who can pay, or at meeting the more immediate needs of enterprises; or in low quality offerings, lacking sufficient added value or the cumulative knowledge of the training delivered by institutions.

For that reason, and owing to the need of injecting rationality into these markets, shaping them in consonance with the strategic need of providing integral training for the labour force, it is essential that the State should adopt an extremely active attitude, although completely different from its traditional role: it need no longer be the financing agent and supplier of training, but should instead play the following roles:

- Financing all training endeavours for the supply of basic, across-the-board skills, that in an open market private agents can hardly be expected to fulfil.
- Organisation, regulation, technical assistance and quality control of the training offer as a whole.
- Creation and promotion of truly integral training systems of occupational training, incorporating the already described diversity of suppliers and financing sources in a synergic way.

All this implies deep changes in the institutionality of training, in concrete terms in VTIs. But it also emphasises that it is important that those changes should be guided and conducted by a public institutionality that –although renewed– may ensure compliance with strategic goals for national development, and provide attention to vulnerable population groups, in linewith solidarity and social equity principles.

II. Training: an occupational, technological and educational issue

The relevance of training, within the labour relations systems of Latin America and the Caribbean, is today an indisputable fact. It suffices to consider the background of tripartite sectoral or national pacts or contracts on employment, productivity and labour relations that introduce training proposals; the growing number of collective agreements that explicitly incorporate training and skills development within their clauses; the development of labour laws referring both to the right to training and its implementation, or the appearance of various instances of dialogue and arrangements - bipartite and tripartite- in this field. The links of training with subjects such as productivity, competition, wages, occupational health, working conditions and environment, social security, employment and social equity, makes it increasingly a key element in present labour systems in the region.

Something similar can be said about the importance of training as a central and strategic component of innovation, development and technology transfer processes. Many vocational training institutions, as well as other fora arising more recently and operating in this field, are not restricted to providing a supply of training alone. Throughout the region it is already frequent to find diverse experiences of technological centres and services which these same bodies establish to offer a broader and more integral range of services, both to firms and to the community at large: laboratories for testing materials, product and process certification services, technology spreading events, specialised publications, data banks for technological resources and consultants in various areas, technical assistance and advisory services, *inter alia*. Likewise, some technological institutes have gone from focusing on the problem of research - development and adaptation of “hard” technology, such as materials, tools and equipment; and “soft” technology, such as information and computer programmes- to consider also everything regarding the management, development and training of human resources. This convergence is in no way a question of chance. It is already a part of common sense in the productive sphere that “human capital” is a central and defining component within the productivity and competitive strategies of firms and economic sectors. Training, therefore, appears on this scene as a fundamental tool both to develop this new technology and to take advantage of and use efficiently any other.

When we observe the present activities of various training bodies in the region we can see, among other aspects, that a broad and flexible supply of training has developed. One can find, within the curricula of these institutions, from initial training courses, through middle and upper courses, to offers of updating which could even interest university graduates. And, as though this were not enough, there arise countless examples of co-operation with other public bodies, such as Ministries of Education in the fields of middle level technical education, non-university technological education and adult education, with firms and co-operating bodies, with unions, with nongovernmental organisations, and so many other variations which it is impossible to record exhaustively in this document. It can thus be said that training has progressively reinforced an educational component which was always part of it, both through the supply itself of specialised institutions and through a greater interlocking and co-operation with other bodies, agencies and teaching methods at work in this area.

Therefore, labour relations, technology and education are fundamental dimensions of the present reality of training and, furthermore, areas in which the latter plays a decisive role. To analyse these dimensions and fields of action of training in greater depth, each one of them shall be dealt with below: training and labour relations; training and innovation, development and technology transfer processes; training and education throughout life.

Training and labour relations

Training is, today, a central and strategic component of labour relations systems. This is confirmed by the interest and growing involvement of firms and workers, of organisations representing the former and the latter, of Labour Ministries through their units specialised in the subject, their training and skills development programmes and the new active employment policies, the most recent labour laws and the increase in collective agreements containing arrangements regarding training.

In fact, training has always been closely linked to labour relations. Even in the pre-industrial stage, when production was crafts-like, there already existed the figures of the master craftsman and the apprentice, where the former gradually allowed and stimulated a progressive accumulation of knowledge and ability on the part of the latter who, finally, became the bearer and continuer of the tradition of the trade. That is to say, even at that time the learning process was completely integrated within those initial labour relations and was a part of the “rules of the game” of production and work of the age.

The development and rise of the industrial era, however, occurred jointly with the trends towards specialisation and greater levels of division of labour in society. Although learning never stopped being something important in work centres, at a certain time the responsibility for training people who were to occupy certain jobs began to be dislodged towards these other arenas, both physical and institutional, which became the training centres.

This latter trend, in Latin America and the Caribbean, occurred parallel to the first industrialising efforts, through the rise of specialised fora which began to take charge of the training function. The apprentice is, typically at this stage, a person, generally a young individual, who attends training courses in an institution for a certain period of his or her life and who becomes a worker when finally hired and located in a job where he applies the knowledge, ability and skills previously acquired. This was, however, a predominant but in no way absolute situation. In fact, already in the mid-seventies, some of the vocational training institutions such as the National Training Institute (INA) of Costa Rica, and Cinterfor/ILO itself, began to worry about delineating and applying strategies that would enable certification of workers who, through their own occupational performance, had reached levels of qualification which deserved formal recognition.

Thus, referring to the stage of industrialisation which occurred at the onset of the development model, it might be said that, in a general way, training played a role which was to a certain extent disguised within the labour relations systems of the times. Although at any place and under any circumstances qualification was an important component of production, the truth is that during that stage, when reference was made

to “labour relations”, it meant basically talk of facts and processes of negotiation and/or disputes around subjects such as wages, stability and job promotion methods, extension of social benefits, etc.

In that context, training was an activity which rarely was a matter for negotiation; therefore, it was scarcely mentioned within collective bargaining agreements, and in labour legislation was only referred to in some basically declarative ways or specifying the institutional environment in the framework of which its implementation had to be resolved (normally a public and national agency). In several countries labour and employer organizations maintained a significant interest, but in the last analysis it was limited to participation through delegates in the executive arenas of the vocational training institutions.

It was a case, indeed, of labour relations systems inserted in a system in which:

- The State played a central role in several ways, among which were collective negotiations, production and direct provision of services, and protection of domestic production through tariff barriers.

- Firms developed, precisely, in a heavily protectionist context, oriented towards the internal consumption market, and were therefore under no great pressure either from consumers or from the competition.

- Workers and their organisations fought for an extension and deepening of their rights, making a basic assumption, which was shared by the State and employers: production and employment would increase continuously, beyond any possible cyclical crises. Unions were, furthermore, organisations undergoing strengthening, to the extent that it was also believed that both industrial production and contracts based on wages would grow indefinitely and so, therefore, would their platform of representation and their power.

- As a result of the same strategy of “inward” development, the imperatives of innovation and technological development were restrained, life cycles of the products tended to be long, and demands for qualification of the labour force, and particularly for its re-qualification, were not so great in terms of updating with new techniques, tools, materials or forms of labour organisation. The challenge was in any case quantitative: to provide a sufficient number of qualified and semi-qualified workers for industry.

In the last twenty years this reality has changed radically in practically every way, causing, among other consequences, a revaluation of training within the labour systems and an increasing interest on the part of the different players in its regard. Why?

Firstly, because **the international insertion strategies of the economies of the region have changed**. Either by means of unilateral trade liberalisation policies or in the context of regional integration processes, in a more or less drastic fashion domestic production begins to be exposed to other kinds of rules which require urgent action to improve competitiveness. This has led to an intensification of the pace of technological change applied to production, a reduction in the life cycles of products and, therefore, also of skills, generating constant pressure for their updating.

Secondly, **the relative importance of the “knowledge factor” within the new forms of organisation of production and labour has increased markedly.** Information and knowledge control thus becomes strategic, as were of yore land control or control of the means of production. The capacity to generate knowledge, and to manage it within the concept of learning organisations, is considered a key strength for competitiveness and has resulted in a revaluation of human talent. Thus the interest of the different players in accessing decision-making regarding design, execution or financing of training also becomes something vital.

Thirdly, **the assumption of sustained and indefinite growth of production and employment -or rather of the direct relationship between them- has been shown at the outcome to be invalid.** Although production may continue to grow, as in fact it does, employment generation does not occur in correlation with it and, in many cases, we face the new and worrying phenomenon of economic and productive growth with rising unemployment. Employment growth in the most economically dynamic sectors is not enough to compensate, in many cases, the dismissals arising from the new capital-labour relationship, affected by the introduction of technological innovations and by the closings occurring in sectors incapable of counteracting the competition of goods from abroad. In the old context, it was enough to apply compensatory-type policies in periods of crisis, such as unemployment insurance or emergency employment programmes. At present a new generation of active labour market policies has arisen which invariably considers training and skills development to be their most central and strategic element.

In this new context, the position of the productive and occupational players changes, negotiations become more complex and it becomes increasingly difficult to deal with subjects such as wages or labour stability in an independent manner. Much more attention is paid to the relationships among employment, wages, productivity, production, competition, quality, etc. It is within this new state of affairs that training appears revalued and begins to be perceived as a strategic subject. It is incorporated into a growing number of collective agreements and also included in labour laws. Experiences of social dialogue and arrangement arise and multiply in the training field, and they prove to have a very large capacity for development and sustainability, even in contexts where conflicts are great.

As a feature within a more general process of restructuring and reassessment of the role of the State in social and economic life, but also regarding the revaluation of training in the field of labour relations, the Labour Ministries (Mintrab) have, in an increasingly generalised manner, become protagonists in the area of vocational training in Latin America and the Caribbean, mainly concerning the definition of the general thrust of policies.

From the former mediation role in the capital-labour relationship, focusing on remuneration, stability and working conditions aspects, these Ministries broaden their competence to deal with, in this regard, training from the standpoint of active employment policies. This is expressed both in regulations and in the institutional structure itself, with the creation and development of secretariats, boards or services specifically addressing vocational training and its relationship with other occupational aspects.

This increasing incumbency began, precisely, when the labour authorities understood that **vocational training is a key feature in the formulation and implementation of active employment policies.**

In the mid-seventies in Chile; approximately ten years later in Mexico, and particularly since the beginning of the present decade in other countries: Argentina, Brazil and Uruguay, to mention a few, the Labour Ministries developed ambitious projects increasing their involvement in the field of public employment policy generation. These programmes, financed with their own resources in almost all cases, reinforced in others by international banking credits, not only acknowledge the relevance of vocational training to achieve results, but also initiate a re-formulation of their traditional institutionality: the training systems which begin to be generated seek definition on the basis of greater attention being paid to the production machinery's **demand for training.** This approach is conceived with a view to overcoming, somehow, the rigidity observed in some national institutions which had become attached to an organizational and programmatic structure which was too closely linked to the available training supply.

Because of this, it can be said that training occupies a central place within the active employment policies which are beginning to be promoted by the labour ministries. Within this approach, the conception developed plays a role centred on policy and strategy design, generation of financing mechanisms and supervision, monitoring and evaluation of training activities, delegating the function of executing those activities to other agents, both public and private.

As has already been said, the importance assigned to these policies is evident in the major financial resources allocated to carrying out the various programmes and projects. These resources come from different sources: public funds for training established by law; special resources from the public treasury; unemployment funds; as well as the Labour Ministries' capacity to obtain public loans in the field of vocational training (projects together with the IDB and the World Bank, *inter alia*). As a partial review, the following examples may be mentioned, among others:

Labour Ministries in the field of active employment policies

- In **Brazil**, The National Training and Vocational Development Secretariat (SEFOR) has a Workers' Protection Fund (FAT) administered by a Deliberating Council (CODEFAT) which is tripartite and in which management and workers are involved on equal terms.
- **Chile**, has the National Training and Employment Service (SENCE), in charge of managing the various programmes such as those involving the use of tax concessions, youth employment and training (Chile Joven), among others.
- **Mexico**, executes projects addressed to develop demand for training through ingenious mechanisms to strengthen and consolidate micro-, small- and medium-sized firms, as well as significant resources disbursed through scholarship programmes for the unemployed and an important national effort addressed to establishing a system of standardisation and certification of occupational competency.
- **Uruguay**, takes measures through the National Employment Bureau (DINAE), of the Ministry of Labour and Social Security, and the tripartite National Employment Board (JUNAE), in charge of allotting resources from the Labour Reconversion Fund.

Also important are tripartite actions which, co-ordinated by the Ministries, incorporate employers and workers to discussion and decision-making on policies being considered.

But what merits special mention is the present role of Labour Ministries through the already cited **active labour market policies**. To the extent that those Ministries participate in the definition of the larger national guidelines involving development and productive transformation strategies, as they begin to act also in the field of strengthening and modernising the supply of training, they are able to act simultaneously and consistently on the different and major aspects of the problem.

The decision to intervene in the labour market through employment policies arises from different reasons: to address transition problems in the process of opening up the economy; to respond to social risk situations through redistribution mechanisms; to correct market defects, both in terms of the link between labour supply and demand and in the training area.

Within the new concept of active labour market policies, a field in which the Labour Ministries have taken, and take, measures of great importance and significance, is that of youth training and employment programmes and projects. Addressed to young people in a situation of structural unemployment and high social risk, they arose as mechanisms for compensating the harsh social effects of the policies of structural adjustment and opening up to international trade of the economies of the region, with their relevant processes of reorganisation of state social services. Through a concentrated and intensive process of services involving skills development, training by psychosocial-type cross-sectional competencies, remedial education and on-the-job training, the programmes aim at increasing opportunities for labour insertion of this population. Some of the main characteristics are: the adoption as an indicator of the relevance of training to the detection of opportunities for on-the-job training in firms; the self-focusing of the target population; and non-concentrated execution regulated by market mechanisms.

The Labour Ministries of the region, in short, are acting decisively in the field of vocational training and contributing to its integration on the basis of higher and national strategies, related to productive transformation and the challenge to increase productivity and competitiveness of firms and economies, in order to ensure environmentally and socially sustainable economic growth.

Training and innovation, development and transfer of technology processes

The most innovative experiences at the regional level on the subject of training conceive the latter as part of a set of technology transfer actions, both of labour and of production, adaptation and innovation. This marks a turning point, both conceptual and methodological, in the action of institutions, training centres and technological education units.

In conceptual terms, these experiences are characterised by specialising to a certain extent towards specific economic sectors (metal mechanical, pulp and paper, leather and

footwear, chemistry, construction, etc.), which allows them, among other benefits, a greater degree of technological updating of machinery, equipment and materials, although also regarding knowledge and techniques applied to production. This updating, supplemented by new strategies of approach to and co-operation with the productive sector, is making it possible to offer a series of services which complement the traditional supply of training.

Either as a conceptualisation prior to these changes, or as a practical result thereof, what is certain is that there is also a change in the notion of who the subjects are to which these units, services and centres cater. If previously the main population catered to consisted basically of individual workers, fundamentally young people, to whom it was sought to transmit systematically a body of knowledge, abilities and skills linked to an occupation, today these new experiences also conceive productive units (firms of various sizes and characteristics), their productive links and organisations, and the economic sectors themselves, as part of their primary audience.

Moreover, there is an effort to cater to this new audience in a more integral manner than in the past. Such are the cases of the National Technology Centres, of the SENAI, and the Federal Technological Education Centres, dependent on the Mid-level and Technological Education Secretariat, of Brazil; the Technological Services Centres of SENA; the Technological Nuclei of INA; as well as the activities offered to firms in Peru by SENCICO and SENATI, so that they may access not only training and skills development services, but also research and development, technical assistance and consulting, or technological information services.

Although this diversification of institutional services includes as a component a search for alternative financing, in many cases this is only an emerging component. Its greater potential lies in the processes of strengthening the updatedness, relevance and quality of the training itself. The dovetailing in an appropriate environment of training and education, labour and technology, enables mechanisms to be structured by means of which there is an acquirement of, besides solid technical and technological knowledge, the values, habits and behaviour inherent to the competencies which present historical circumstances require of workers, technicians and professionals.

A fundamental characteristic of this new conception of training, lies in the incorporation of content and methodologies belonging to what has been called “technological education.” Briefly, this involves *recording, systematising, understanding and using the technology concept, historically and socially constructed, to make of it an element of teaching, research and extension, in a dimension that exceeds the boundaries of simple technical applications: as an instrument of innovation and transformation of economic activities, to the benefit of man as worker and of the country.*

Technology itself has exceeded today the purely technical dimensions of experimental development or laboratory research; it encompasses issues of production engineering, quality, management, marketing, technical assistance, purchases, sales, *inter alia*, which transform it into a fundamental vector of expression of the culture of societies. It could be said that the technological process itself is, in and of itself, an exercise in learning which modifies the way the world is “seen”, marked by theories, methods and applications. It is also knowledge and maintains, therefore, the constant

demands of the “spirit of investigation” regarding the facts generated, transmitted and applied. There then arises a need for closing the distance between the conquests of scientific and technical knowledge and the knowledge of those who apply the technologies, be they students, instructors, researchists or workers, in order to inform them of their role in the technical transformation of production and labour.

In the more integral conceptions in this regard that have been implemented in the region, there has been a move away from the notions restricted to skills upgrading, training and preparation of the labour force as a function of the immediate needs of the labour market. On the contrary, they seek to transmit to the worker different dimensions capable of making him or her able to cope with the scientific-technological evolution of the modern world and, in this manner, allow them to contribute their intelligence, creativity and effort inside the productive unit.

A rough survey of what is happening in the region allows us to see, on the one hand, that a goodly part of the training institutions, both public and private, are dealing with the challenge of establishing a closer link between the supply of training and the processes of innovation, development and transfer of technology. However, on the other hand, there is also a tendency for technological institutes and agencies related to sectoral employer bodies to begin to deal simultaneously with the subjects of technology and training and the development of human resources. By way of illustration we present below some of the multiple and rich experiences at present under way in the region which are proof of the approaches we have mentioned.

Brazil: SENAI and the National Technology Centres

The **SENAI**, in Brazil, is diversifying significantly its institutional mission, broadening the boundaries of its role as a vocational education institution and getting to be acknowledged, also, as an instrument for the generation and dissemination of technology. Technological incubators, islands of technology of production integration and digital information transportation systems are, *inter alia*, some of the institutional initiatives designed to consolidate this function. The incubator projects are considered means to accelerate modernisation, not only by creating new firms, technological or not, but also to rapidly surmount present structures that find it difficult to introduce concepts imposed by present paradigms of the society of knowledge. The basic proposal is to facilitate the long and expensive voyage between the laboratory prototype and the head of the industrial run. Thus the importance of a strengthened infrastructure and of the activities associated with the support provided by orchestration, marketing, trading and disclosure. An incubator makes available to emerging firms physical space, support services - telephone, fax, graphic reproduction, secretarial services, administration, accounting support, computer support - human resources, specialised services, training, technological support, etc. The mechanisms of orchestration, training and technological support developed by the SENAI serve to provide a basis and training for employers so that they may be able to face with greater security the obstacles which arise between the world of research and entrepreneurial reality, where competition - quality, productivity and price- is the factor that determines success.

But perhaps one of the main strategies of the SENAI is the model of the National Technology Centres. Conceived on the basis of the certainty that an increase in productivity and competitiveness on the part of industrial firms is conditioned by investments in technology, these Centres become poles for the generation, absorption, adaptation and transfer of technology, and they work on adding value to the information.

The evaluation system to obtain the National Technology Centre (Cenatec) Award was conceived on the basis of the National Quality Award (PNQ), the structure of which, in turn, is based on the “Malcolm Baldrige National Quality Award.” The Cenatec evaluation systems includes three different versions:

i) A version used to grant the Award in the Bronze Category, which is the simplified version of the PNQ, the result of the reduction in the scope of the items included in each of the seven evaluation categories: leadership, information and analysis, strategic planning, development and management of human resources, process management, business results, focus on the client and the latter's satisfaction.

ii) The evaluation system of the version used to award the Silver Category is more complex and more extensive since, besides increasing the level of requirements regarding Quality Management, it also introduces Cenatec's items of evaluation referring to Technological Content and its results, with a minimum standard of points which must be achieved, as well as the "Support Services" and "Facilitator Effort" items.

iii) Finally, for the third version, the award in the Gold Category, the PNQ Excellence Criteria are used, in their present version, supplemented by the item referring to Technological Content.

An attempt was therefore made to institute a system for the evaluation of increasing complexity and demands, with the aim of introducing in the SENAI units constant effort to improve quality standards, without establishing, despite this, schedules or obligatory participation in the three categories.

The National Technology Centres (Cenatec), reciprocally with the productive sector, with the universities and with research institutions, exercise simultaneously the functions of education, technical and technological assistance and applied research. The SENAI includes today 45 Centres which have already been certified, located in 11 states of the Federation, in the southern, south-eastern and north-eastern regions of the country, which perform in more than 20 technological areas.

The Centres train mid-level industrial technicians at the same time as they provide practical technological extension courses, consulting services to firms, dissemination of technological information, quality certification and certification of experimental development of products and processes, addressed to a sector of industrial activity in their area of competence. However, there are already pioneer activities where, through some Centres, the SENAI makes inroads in higher education, as is the case of its course in Textile Industrial Engineering.

The basic philosophy of action of the Cenatec's contemplates a cross-section of disciplines, speed in the circulation of technological information -with a strong presence of easy accessible information systems- and flexibility in the use of pedagogical instruments, programme contents and curricula, thought out in terms of the constant interaction between technological practices of firms and training activities.

On the basis of experience accumulated through the Cenatec's quality evaluation and accreditation system, the SENAI is also promoting a strategy of expansion to all its operational units of the adoption of management excellence models. In 1997, the certificate of "Vocational Education Model Centre" (CEMEP) was created, conferred in the three categories referring to SENAI units which stand out due to the quality of their services. The expectation is that this system may become an efficient instrument for improving quality standards and operational performance in the majority of the units of the institution. Their main aim is to develop programmes with innovative teaching-learning methodologies and flexible curriculum organisation suitable for the demands of life-long education, stressing the integral training of the individual. But the CEMEP process, besides being an innovation in vocational education, also seeks to improve the quality of the technical and technological assistance provided by the unit to its clients. Together with the International Centre for Education, Labour and Transfer of Technology (SENAI/CIET) and the National Technology Centres, the CEMEP's constitute the National Technology Network of the SENAI.

Programme to Train Rural Entrepreneurs by means of Incubators The experience of the SENAR at Bahia, Brazil

The persistent lack of success of attempts to create small and medium sized enterprises in the tertiary and secondary sectors underscored the need to devise and implement mechanisms capable of offering entrepreneurs the necessary knowledge and experience to prevail in their undertakings. The idea of firms' incubators was considered, consisting of an adequate physical infrastructure and equipment,

providing candidates with real-life contact with the main aspects of their business. Incubators have subsequently evolved focusing specially on the technological basis of affairs.

If this is important for commerce and industry, it is obviously vital for the livestock raising and agribusiness sectors, where technology has to be in keeping with the economic, social and environmental conditions of rural communities. Agricultural – industrial incubators are therefore essential. They are usually Comprehensive Occupational Schools offering rural producers and workers the sufficient and necessary knowledge, experiences, instruments and means to turn them into agribusiness entrepreneurs, and play a leading role in the agricultural productive chains. The strategy of these incubators rests upon the institutional agreements required to bring together complex and broad-based activities like those relevant to the development of agriculture and agribusiness.

It is in essence an educational process that relies on the modern concept of instruction within a given context of occupational competencies (skills), contributing specifically to improve people's living standards. It is an education adapted to each regional situation, and its agricultural inclinations or aptitudes.

It is based on competencies so as to offer persons full knowledge and abilities for the performance of a job. It is occupational in nature because it aims at further education in tasks that were already carried out by individuals every day, and will continue to be so.

Finally, it is a process that will improve people's living standards because besides imparting the productive skills distinctive of vocational training – which add economic value – incubators also provide instruction in the Social Promotion area, such as preventive medicine, alternative food, domestic hygiene, etc. that help to ameliorate people's living conditions at a personal, home and community level.

This all-embracing educational package is delivered through occupational and programme modules that, with suitable support and activation, provide the necessary sequence to transform mere producers and sellers of commodities into agribusiness entrepreneurs.

The process begins with a register of persons that meet the requirements of the incubator proposal. This identifies potential candidates as well as procedural dynamics. Selection criteria for participation in the programme are thus defined: participants should be rural producers or workers; processors, middlemen or dealers in commodities or other products of the agricultural sector.

Selected candidates go through the occupational module that gives them further training until they can perform tasks to full satisfaction. This constitutes the very essence of the SENAR directive of "Learning by doing". Successful candidates go into the subsequent module where they are taught the know-how and techniques to carry out an economic analysis of their business.

If participants are interested and their projects are viable, they enter a third stage dealing with marketing and management techniques. In this manner, after production methods have been refined, economic viability checked out, market goals identified and management styles outlined. The final project is prepared and implemented with direct participation of the entrepreneurs themselves.

The Incubation Process is therefore based on four modules, namely, Occupation, Economic Analysis, Marketing/Management and Technical Project. By Occupation we mean an economic activity comprising tasks that lead to the completion of a product or service of commercial value. Economic Analysis consists of techniques enabling incubator candidates to decide whether the business they propose is viable or not. Market and Management include the knowledge and experience necessary for potential entrepreneurs to identify their market qualitatively and quantitatively, and to adopt a management scheme. The last module is the joint preparation of a Technical Project, with all side effects and implications, including financial aspects.

As a guarantee of funding support, the Brazil and Nordeste Banks have specialised representatives on the Managing Committees of Incubators. All along the incubation process, participants are encouraged to become associated with each other, and are made aware of the fundamental importance of scale economies. Also worth noting is that all incubator groups have to sell their products in the market in accordance with their respective Economic Analysis; they should only develop their Technical Project after the viability of the undertaking has been checked out.

The agribusiness incubator effort is gradual and staggered, insofar as each phase is a result in itself, in which participants are certified if they are successful. That certification improves their chances in the labour market as it bears witness to their abilities.

It is also important to reconcile the incubation period with the need of participants to continue producing and working in their normal activities, which implies negotiating training days and hours carefully and is an ideal example of participative education. The limits are that the total training load of some 228 hours must be delivered in a year's time.

Each Incubator is established as a non profit Civil Society, run by a Managing Committee made up by representatives of the institutions directly involved, which is responsible even for the initial selection of candidates and their gradual culling.

The experience of Agribusiness Incubators has shown that there are great and interesting opportunities for self-managed small and middle-sized agricultural enterprises in the area of Bahía. Many results evidence added economic value to the rural raw materials. Examples are the manufacture of preserves, pickled vegetables, jam, sausages and dairy products that add 10 to 12 times the value of original commodities. Products are placed in principle in the local market.

Apart from such important economic and social results, agribusiness incubators are also of strategic value as they support small and medium sized enterprises and encourage the participation of rural producers and workers in the productive chain. This endogenous movement has far-reaching effects, insofar as it promotes the overall modernisation of primary production, industrialisation and marketing, with a permanent impact on the development of rural areas.

Chile: INACAPs' Technological Centres

The **INACAP**, in Chile, has a series of technological centres where training services are provided to workers, technicians and professionals, as well as technological services of different kinds to firms and other bodies related to production, both of goods and of services. Among the INACAP technological centres, the International Telecommunications Training Centre (CINCATEL) stands out. Training courses designed and executed by this Centre are included in a wide variety of specialisations which are being implemented in the telecommunications field, based on market demand and on the feasibility of having the human, material and technological resources necessary to offer a training service which fulfills the demands of its clients. CINCATEL has laboratories for Digital Commutation, PCM Transmission, Fiber Optic Transmission, Digital Microwaves, External Fiber Optics Plant, Computer Science and Internet, and Communications. It possesses both the infrastructure and the human resources needed to provide advisory and engineering services both to the private and the government sectors.

As examples of trade associations and technological institutes that carry out activities which converge with those performed by training institutions, we can mention, *inter alia*:

The **Chilean Chamber of Construction (CCC)**, a body which, together with its normal functions as an employers' association, has a Technological Development Corporation which provides services of: *technological dissemination*, through publications, encounters and seminars, and establishing relations with research and technological development centres in other countries; *transfer of technology*, through technological opportunity detection, co-ordination of business based on technology, advisory services for obtaining funds for technological innovation via contests, and technology transfer cycles; *coordination of technological interest groups*, for drafting technical and informative documents, regulatory documents, stimulating related research and managing technology transfer projects; *promotion of technological studies*, technical studies, sectoral analyses and feasibility studies. This action on the part of the CCC in the technological field is supplemented by the development of an initiative aimed at establishing competency profiles as required in the Chilean construction industry, as a way of guiding both firms in their screening, training and promotion of human resources policies, and the education sector and training system in the curricula they offer.

Colombia: the SENA and the technological development

The **SENA**, of Colombia, has had, in its more than forty years of age, an increasing relationship with productive technological development. From the standpoint of this institution, its main function, to provide complete vocational training for the country's workers, can be defined as a transfer of technology in a training environment, to be applied to the productive processes of firms of all sizes and technological complexities.

Among the specific fields of endeavour of the SENA the focus of which is explicitly the support of technological development, the following services can be singled out: support to sectoral agreements regarding competitiveness; applied research in association with other bodies; and special co-operation agreements. These activities are carried out mainly by 21 training and technological services centres which have comparative advantages to further technological development activities, in which a significant part of the resources of the body's regular budget is invested. These centres possess an infrastructure in equipment and plant which can be used in strategic alliances with firms and technological development and productivity centres to promote activities in the framework of innovation and technological development.

At present that responsibility has been increased by the assignment of a significant part of its parafiscal income to productive technological development projects, in accordance with the provisions of Law 344 of 1996. By applying these resources the following is sought:

- To increase the competitiveness of productive sectors with the aim of promoting exports, improving innovative capacities and raising the level of learning of employers and workers, as support for the basic strategies of employment generation and upgrading the quality of life of the Colombian population.
- To provide vocational training in the country, to respond to the needs of the productive sector, in such manner that it be flexible, of good quality and relevant.
- To modernise SENA vocational training centre management systems.
- To initiate the dovetailing of the National Vocational Training System with the National Innovation System, establishing common approaches and strategies which enable the quality of technical and vocational education to be raised, technological innovation in productive sectors to be furthered and the creation of a new institutional culture for long term competitiveness in Colombia.

In a general way, Colombia has sought to structure its efforts regarding science and technology in a process beginning with the enactment of Law 29, of 1990, which provides for the development of scientific research and technological development and grants special powers, *inter alia*, to modify the statutes of official bodies with science and technology functions, including those of changing their appointments and linkages and creating the bodies needed. The Law was broadened and specified in 1996 by three decrees: one establishing rules governing association for scientific and technological activities, research projects and technology creation; another creating the National Science and Technology Council and reorganising the Colombian Institute for Science and Technology Development (COLCIENCIAS); finally, a decree which regulates the specific modalities of contracts for promoting scientific and technological activities.

This legal framework has provided an important base for reinforcing activities related to technological research and development by decentralised agencies such as the SENA, as well as universities and other institutes involved in the subject. In this context, the role assigned to vocational training, and concretely to the SENA, in competitiveness policy is very important, not only as a provider of training services, but also of funds for technological development projects. Together, SENA and COLCIENCIAS constitute the National Technological Development Projects Committee, the purposes of which are, *inter alia*: to propose specific actions for dovetailing the National Innovation System with the Vocational Training System, according to the general policy and guidelines established by the CONPES and the National Science and Technology Council; and to analyse the projects and the concepts of the evaluators and

experts and decide on the feasibility of the initiatives that meet the requirements of relevance, quality, employer commitment and technological innovation.

One of the concrete expressions of the results of this strategy are the Technological Development Centres, in some cases managed directly by the SENA and in others by the private sector with the support of this institution. The SENA at present has Centres in different regions and cities of Colombia, to wit: ASTIN Centre for Technical Assistance to Industry; Colombian-German Centre, targeting welding processes and quality control; Metallurgy Centre, working in the field of iron patternmaking and moulding, ferrous and non-ferrous metal melting; Colombian-Italian Centre, in design and manufacturing systems with the aid of computers, applied to metal mechanical processes and products; Industrial Management Centre, in the fields of materials testing for metal mechanical quality control, thermal treatments and metallographic analysis, as well as programming, planning and control of industrial and maintenance processes, and industrial chemistry; Wood and Furniture Colombian-Canadian Centre; Textile Centre; Clothing Centre; Footwear Technological Centre; Hotel, Tourism and Food Centre; Graphic and Related Products Centre (SENIGRAF); Commercial Management and Marketing Centre; Latin American Minor Species Centre, in livestock activities.

Costa Rica: INAs' Training and Technical Services Nuclei

The **INA**, of Costa Rica, has taken on the duties of advising and supporting producers of different sectors, which tasks have been organised in the mould of Training and Technical Services Nuclei. The approach of these nuclei is sectoral and their aim is to strengthen the sectors producing goods and services, providing the firms with options regarding training, transfer of technology, technical assistance, technological information, project and prototype development, *inter alia*, in order to contribute to increasing their quality, productivity and competitiveness levels. These are units that are not technically concentrated; they bring about the convergence of different players and resources, facilitating dialogue and co-operation, at the same time as they make possible a deeper and more systematic awareness of the reality which is to be affected.

Peru: SENCICO and innovation in construction technologies

SENCICO, in Peru, besides rendering training services in the construction area, takes on other tasks:

- in *research*, seeking new construction technologies and to upgrade native technologies, and undertaking studies related to building, urban development and improvement of the habitat in general;
- in *standardisation*, working out and updating, through Specialised Technical Committees, standards for design and construction, which are incorporated into the National Building Regulations. The Committees are made up of representatives of various research institutions, universities and other institutions related to housing and construction.
- The aim of the *Materials Testing Laboratory* is to provide academic support to some careers linked to the construction sector, and it also renders services to users in the execution of materials quality control tests and soil studies for civil construction.
- Research is also carried out in the field of construction materials and soil technology.

SENATI: technological information services

SENATI, also in Peru, has adopted a strategy of diversification of its services towards the technological area which is methodologically different from that of other institutions. Although it does not possess technological centres *per se*, it provides advisory and technological information services, the former through forming *ad hoc* advisory teams upon the demands submitted by firms or groups of firms, and which are made up by the instructors of the institution as well as by external consultants, of which it has an updated and screened register. Technological information has been provided by holding events, one of the most important of which is the recently created “International Industrial Technology Congress,” where employers, professionals, technicians, workers, students and instructors are introduced to the main technological innovations which have arisen for the different productive sectors.

Venezuela: Vocational Training and Technological Services Centres of the INCE

INCE, in Venezuela, has implemented recently an institutional innovation to establish Vocational Training and Technological Services Centres. The Centres are seen as “variability reducers” of productive sector technological demand, establishing the Institute’s position for its internal and external audiences, for which purpose it takes account of the demands of the regional universe of firms, as well as the intensive utilisation of installed capacity. In terms of research and development, the INCE has planned the following activities for its Centres: applied research; experimental development; adaptation-adjustment; design; simulation; unbundling of packaged technology; and technological studies or diagnoses. In the line of rendering technological services, it offers: technical assistance; consulting services; information, documentation and dissemination services; laboratory tests and essays; design and standardisation of methods of analysis and sampling; specification, selection, testing and start-up of equipment; and mediation.

Training and life long education

Training is, in the final instance, an eminently educational activity, and both its history and its present status in the Latin American and Caribbean region confirm it. In initial periods, almost all the vocational training institutions of the region made significant efforts to assign priority, on the one hand, to young people not incorporated in the regular educational system, by providing them with training. Moreover, the first institutions which arose in the region had as their main and explicit purpose to structure and manage the training which had so far been a casuistic endeavour, barely regulated, of some expanding industrial sectors. Training was clearly conceived for young people of between 14 and 18 years of age who finished primary education and had no possibility or aspirations to continue in the formal educational system. It was therefore an alternative option to mid-level education, and was initially conceived for the children of workers who aspired to follow in the steps of their parents.

Originally, the training thus offered was neither recognised in any way nor did it have equivalencies in formal education levels. It was conceived as a completely independent system of training for employment, with no pretensions to a parallel level in the regular system. However, the development of the situation and coverage of the regular education system did have important effects on vocational training. During its initial years, almost all the vocational training institutions were compelled to provide introductory courses for “prior levelling” to provide elementary knowledge of reading, writing, and mathematics which would give the participants the rudiments needed to

take advantage of the training offered. Moreover, in many cases vocational training institutions spent their time implementing literacy and adult education programmes, either of their own or through efforts undertaken by the Ministries of Education. In other words, **the experience accumulated by the attention paid to disadvantaged sectors, plus the mandate received from the highest spheres of government, made it possible for the vocational training institutions to become among the first sectoral public agencies to be called to promote social policies formulated to achieve equity and overcome poverty, through educational endeavour.**

As the result of a substantial improvement of the levels of schooling of the population in general, the vocational training institutions gradually reduced their efforts to implement programmes of prior levelling and adult education, devoting their time to aspects more related to their specific and original mission: training for productive employment. In this sense, the expansion of the coverage of the regular educational systems at the primary and secondary levels allowed these institutions to gradually change the schooling requirements of their candidates for their programmes, particularly the more formally schooled ones, and move their training levels upward.

Nevertheless, in many of the training programmes of the institutions of the region curricula related to mathematics and language still prevail, and on occasion they are the same as should be provided by the regular educational programmes required as a minimum to access vocational training. Indeed, the problems of approach, poor quality or insufficiency in the formal educational area are reflected when vocational training is applied in practice.

The educational nature of training was not exhausted, however, in the mere circumstance of its relationship to the regular educational system. The training provided by the institutions was never restricted to a mere training for a certain job. On the contrary, it always tended towards an understanding of the meaning of work and the environment in which it is carried out, contributing, as well, to an awareness and appreciation of productive labour, through the development of a taste for the occupation learnt, as well as a sense of dignity and professional pride.

Today, both the regular educational system and the various training systems are faced with a new context which poses challenges of great significance. Among them, probably the greatest is the adaptation and updating of curricular content and the certifications offered for the new occupational profiles arisen as a consequence of the transformations occurring in the productive world and the new employment reality.

No doubt this is a situation which has a greater effect on the regular educational systems than on training, which historically has greater linkages to the productive and labour world. That is one of the causes of the progressive closing of the gap between the two systems, as well as of the rise of some of the most innovative initiatives occurring in the region which tend to standardise the supply of training and education on the basis of present occupational competency profiles.

In any case, there is today a consensus, both at the political level and at that of society, that it is necessary to restructure the supply of education and training in sufficiently flexible terms to provide an answer to the diversity and mutability of the demands for qualification. No one can expect today that the initial knowledge stored in

the minds of young people will last them their whole life, since the rapid development of the world requires a permanent updating of knowledge, at a time when basic education of youth tends to prolong itself. Education and training are, indeed, mutating; in all areas a multiplication of training possibilities offered by society is to be observed outside the school, and the notion of specialisation in the traditional sense is being replaced in many modern sectors of activity by that of evolving competency and adaptability.

This is a basically qualitative change. If before it sufficed to transmit certain technical knowledge and certain manual abilities for the individuals involved to be given a job that was waiting for them, now it is necessary to deliver a whole range of competencies which were previously insufficiently stressed: initiative, creativity, enterprise, relationship patterns and co-operation. These have to be accompanied, moreover, by the new technical competencies required, which are relatively less specific than in the past: languages, data processing, logical reasoning, capacity for analysis and interpretation of different codes, etc.

It is thus a priority to provide the means for people to be able to manage their own processes of occupational and vocational development: to find a first job, seek a new one, initiate an enterprising venture, re-train themselves through courses, and train themselves permanently, whether employed or unemployed, in the home or at the workplace. **In what seems to be a play on words, at the same time as the concept of “life-long employment” is disappearing, the concept of “life-long training” is emerging.** This change in the conception and practice of training involves a series of consequences which it is necessary to highlight:

- In the first place, unlike some decades ago when the dominant trend was towards specialisation, today it seems to be increasingly necessary to be able to count on a series of basic and general competencies, which serve both to perform in working environments with a lesser degree of control and more unforeseen situations which must be resolved on the spot, and to “surf” in a difficult and competitive labour market. The specific training which continues to be necessary is acquired, increasingly, on the job itself, and firms prefer to be in charge of it. The training bodies, and many programmes, begin to approach, both in terms of content and institutionally, the sphere of general or regular education. As the latter is also in the process of being revised, it benefits from this approach to the extent that vocational training provides it with experience regarding its relationship with the productive sector. Said differently, there is a synergy beneficial to both traditions and institutionalities.

- Secondly, responsibility for training is beginning to be shared and it necessarily becomes an area of arrangement and co-operation. If the people no longer train exclusively in the learning centres, but rather do so also in their homes and workplaces, the responsibility for training is shared among training bodies, employers, governments and the individuals themselves (and the organisations in which they take part and that represent them). Thus tripartite management is revitalised and the rise of new forms of training management also benefits. They do not acknowledge unique models: we may be talking of social or political agreements that allow, for example, the development of alternating methods or dual training, as we can also speak of production training centres congested by chambers of employers or unions. There are foundations managed by unions which are financed by employers, as well as national systems with tripartite

management. But whatever may be the form adopted, the truth is that the cases increase in which there is an establishment of alliances which make it possible to take advantage of the resources that societies possess through their diverse players, in order to use them more efficiently and at the service of the ongoing and integral training of its citizens.

- In third place, because of its very nature, for life-long training to be possible there must be an extremely flexible and dynamic supply. The progressive blurring of boundaries between branches of production at the level of basic competencies makes for infinite possibilities in terms of the itineraries covered by individuals to reach the same type of employment. It is difficult to standardise the possible demands of these people and the supply of training, to be at the level of these requirements, must be a kind of “self-service menu” where everyone may fulfill their needs for qualification in the most diverse circumstances and periods, as well as with diverse degrees of depth and different content. Moreover, the demands for training have extended and diversified due to factors such as the greater relative importance of the knowledge factor within production; the entry of great hordes to active life (particularly in the less industrialised countries); the reduction of public employment; the workers displaced from firms that are reconverting or have disappeared; or the emergence of new forms of employment and self-employment. To cater to the entire active population, employed and unemployed, of the modern sector and the more backward sectors, formal and informal, youth and adults, is not a task that can be performed efficiently by a single player, even when it has great financial resources (a situation which is moreover infrequent). There is no other alternative, even here, than to seek the dovetailing of efforts through concerted action among diverse players that, from the standpoint of their own specificity and with their own resources, may contribute to structuring a training system which is sufficiently broad, flexible and diverse so as to cater to an increasingly heterogeneous demand for continuous training.

Integration among educational and training systems in Argentina

In **Argentina** a reform of technical education was begun in 1996, that has resulted in the orchestration of the so-called “**Trayectos Técnicos Profesionales**” (Vocational Technical Journeys) (TTP) which are offers of training of an optional nature for all students or graduates of polymodal education. Its function is to train technicians in specific occupational areas the complexity of which requires a thorough grasp of professional competencies that can only be developed through systematic and prolonged training processes. The design itself of the TTP’s is an interesting and timely example of the search for integration among the various educational and training systems:

- *With polymodal education*, because the latter is a set of training alternatives aimed at large fields of knowledge and of social and productive action (in a total of five areas), and the election of which allows students to consolidate fundamental competencies in those areas in function of issues linked to their interests and motivations: through the TTP’s they access a different and additional option. We are dealing, in this latter case, with vocational initiation through training that prepares the trainee to perform in certain occupational areas that require a thorough grasp of specific technological and vocational competencies.

- *With vocational training*, because the TTP’s complement a supply which arose, in Argentina, to target the development of the competencies required to perform in certain occupations and/or as a component of active employment policies aimed at promoting entry of groups with specific needs into the labour and social environments.

- *With life-long and higher training*, given that the function of the TTP's is to introduce the students into a vocational journey, guaranteeing their access to a base of vocational knowledge and abilities that allows them to begin working in a first job within a certain vocational field and to continue to learn during all their active life. What is then sought is that the training provided through the TTP's be supplemented with other educational alternatives in order to allow further levels of development, specification, re-orientation and -possibly- re-conversion of the initial vocation.

A new pedagogic model at SENAC: polyvalence as a guiding principle

In an effort to meet the challenges of a context of incessant change, many Latin American and Caribbean vocational training bodies are prey to an uncertainty that sometimes undermines their potential for forecasting and reaction. Some of them have opted for staying as close as possible to their original field of action, i.e. the training of manpower for specific work posts in the labour market. Others have instead forayed into new terrain and try to meet the needs of firms and enterprises by expanding non-traditional services such as technical assistance and consulting services, aiming at increasing productivity, reducing costs, improving business management, etc.

Vocational training institutions are thus taking part in the manifold changes that occur in economic, social, cultural and political spheres; their action goes in new directions at different rates.

Within that picture, the SENAC of Brazil is no exception and has expanded and diversified the services it offers in connection with the specific delivery of training. It has carried out a critical analysis of its own past experience, endeavouring to strike a balance between the two types of services. The current situation calls for an in-depth review of the pedagogic and methodological basis upon which actual vocational training activities rest, in order to establish where reformulation is most urgent in the light of transformations in the organisation of labour.

Documents embodying the philosophical conception of SENAC reflect signs of the need to adapt educational action to the changes having taken place in the world of labour, particularly regarding occupational profiles. This requires vocational training to extrapolate the specific know-how of a given job.

In that respect, **polyvalent training** is the proposal that SENAC considers to be best suited to the training of human resources in a context of work organisation that changes constantly. Besides taking into account technical / operational competencies, polyvalent training favours the development of cognitive, social and communication skills.

For SENAC, permanent education is a strategy that *"(...) trains in the performance of a qualified job cluster and, above all, teaches to understand the general, social, economic, scientific, technical, social and economic foundations of production as a whole; it should promote the learning of generic and specific skills and develop intellectual and aesthetic capacities. In summary, it should unify theoretical and practical training"*.

Polyvalent training – SENAC maintains – presupposes a wide grounding in **general** education and calls for a new relationship between teacher and student through a **critical pedagogy** favouring the building up of knowledge.

Another aspect worthy of note is the review of the concept of work that had pervaded the Institute's educational activities. In that respect, a new approach has been proposed encouraging critical and creative attitudes, underlining the human dimension, to make possible the conscious intervention of individuals in the productive process, and enable them to exert their citizens' rights.

At a time when the social repercussions of labour transformations are becoming more acute, and large contingents of persons are left out, the SENAC feels it must reinforce its social role, by offering individuals vocational information helping them to face the challenges of the new organisation of labour. It contends that progress in polyvalent training *(...) is one more factor to resist the tendency towards the degradation of work processes.*

Adoption of this notion of polyvalence necessarily entails a review of the Institute's pedagogic practices, discarding technical slants that were based on a partial analysis of social realities and consequently transferred to education the responsibility for solving the structural problems of society. Implementation of a polyvalent vocational training implies taking up a new teaching approach, based on a more precise definition of the links between education, society and work. There is in that respect a clear understanding that education is not a determining factor for development, although it may be capable of bringing about changes in socio-economic relationships.

In order to establish new quality standards for vocational training, the critical review launched by the SENAC reinforces a reference outline of the pedagogic changes that the polyvalent model determines and which, at the same time lead back to it.

This critical review reaches all aspects of educational practices. Its incidence is greatest on two particular elements: *curricular model and structure, teaching contents and procedures.*

The **curricular model** of polyvalent training aims at overcoming the limitations of previous paradigms. It presupposes a structure open to multiple combinations, involving the many spheres of the human drive (technical side, consensus, emancipation).

Technical interest relates to work as the first of man's fundamental drives, enabling him to bring influence to bear upon his physical and social environment.

Consensual interest refers to language and other aspects that make culture transmissible in an institutional manner; accord, understanding and interpretation of the meaning of action and of life itself.

Emancipation refers in this case to the manner in which man develops a critical awareness, in order to rid himself of ties and achieve autonomy.

In the SENAC viewpoint, human interests must be seen not as watertight compartments but as possible parts of a curriculum, to be brought together and co-ordinated into a consistent whole.

In the new curricular structure **teaching contents** acquire a new significance and greater scope. Besides the specific knowledge and abilities of a given job, they also include concepts, ideas, principles and scientific laws of a more general kind; generic skills; methods of understanding and applying knowledge; work and study habits; social and professional values and attitudes.

In selecting contents, it is no longer enough to string together a number of phenomena, rules and facts, however important and relevant they may be. It is necessary to pick out those that unveil the *whys and wherefores* of the different work processes; that reveal the mechanisms for the occurrence and transformation of phenomena; that explain and relate facts to each other and, in sum, those that can be used as theoretical - practical instruments for decision-making in the various situations of an occupational life.

An **analysis of teaching procedures** is another essential part of the review of pedagogic activities being carried out by SENAC to implement polyvalent vocational training. Teaching contents – even when well selected – require an adequate methodological treatment to ensure effective perception of reality. This fresh approach proposes a break with the compartmentalised model and cognitive learning process. What really matters is to bring about conditions to instil into trainees a capacity for abstraction and reflection concerning the activities they carry out. It is not enough for the student to perform accurately in theory or practice. He will only make progress when he is consciously capable of justifying and explaining what he has done. According to true cognition, knowledge does not come from practice but from a reflective abstraction of what it rests upon. In the last resort, the process tries to develop “meta – cognition” abilities, i.e. getting the student to think about his own learning mechanisms.

Educational activities of the SENAR of Brazil

The **National Rural Training Service (SENAR)** is an innovative institution, among other things, in the management structure it has adopted. In effect, rather than deploying a physical network of training centres, it has opted for a virtual network of services, which are mostly outsourced. On the other hand, apart from being a vocational training body for the rural sector, it also acts as leading educational agent there. The following are the programmes that SENAR offers:

Social promotion

Social Promotion is an educational process aimed at developing the personal and social aptitudes of rural workers and their families. An important aspect is that it is oriented towards prevention rather than assistance. In 1998, SENAR invested greatly in Social Promotion activities, specially literacy campaigns for young people and adults involved in health and community service activities.

Social Promotion activities by SENAR very often include vocational and further education. Living conditions leave much to be desired in Brazilian rural areas, and there is a lot to be done for improving the health and education of rural workers and their families.

Literacy drive for rural workers

The rural population of Brazil is of approximately 27 million people over 7 years of age (figures of the IBGE – Brazilian statistical agency – 1996), which account for nearly 20% of the number of inhabitants of school age in the whole country. Some 15% of the total rural population are young people or adults who never had any schooling, and are therefore considered illiterate. In certain regions the situation is even worse. In the North East, 51% of young people and adults are illiterate.

In Rural Vocational Training courses, when one of the admission requirements is literacy, nearly 24 million people are precluded from training and consequently barred from an increasingly demanding labour market. For that reason SENAR has concentrated on teaching rural workers to read and write, in order to facilitate their access into an ever more selective and competitive labour market.

17,247 rural workers have benefited from the Institute's Literacy Programme in nearly 235 rural communities of 15 Brazilian States.

Distance education and the use of new technologies

Distance training has been a very valuable resource that enabled vocational institutions to take training to greater numbers and overcome the huge geographical barriers and distances of the region. Traditionally, it was implemented by surface mail. Textbooks and teaching aids (usually of excellent quality and easy to use) were sent by post to participants, who sent back their answers and received their tutors' evaluations also by post.

Nowadays, the new communications technologies are both a challenge and an opportunity for training bodies. A challenge insofar as the possibilities of using media such as satellite television or the Internet are ever greater, and multiply the number of beneficiaries. An opportunity because the new information and communication technologies afford an enormous latitude and flexibility in the delivery of training.

Users need to access training at different times of day, from different places and with different time availability. The new distance technologies iron out such difficulties for institutions. There is not a great deal of experience in that respect, but some significant cases may be quoted.

The SENAR of Brazil and distance training of instructors

Until quite recently, there were only traditional offers of distance training. Now there is a SENAR course for the training of instructors delivered through the Internet.

The course has been designed for instructors in the rural management area, SENAR supervisors, technicians and managers (www.senar.org.br). Its objective is to upgrade instructors' technical knowledge and make their work more effective.

The course is presented as a forum where participants can exchange experiences, they thus provide a starting point for discussions and learning, which further encourages participation. In fact, the main element in the training process via the Internet is the students' motivation; they themselves decide their individual rate of progress, what supplementary inquiries they will make, and how far they will go into the various subjects. The monitor (tutor) acts as guide and facilitator; he co-ordinates the whole process and goes beyond the role of mere conveyor of knowledge.

The contents are organised into nine modules covering areas such as: general rural management, economic analysis of the rural undertaking, agricultural policies and rural co-operatives. Maximum course duration is seven months with the proviso that no documentary exchange will take place outside the Internet.

The SENAT and training for road transport workers

The Distance Education Programme (PEAD) of the National Training Service SENAT attached to the National Transport Federation of Brazil is aimed at the further training and productive improvement of road transport workers.

It consists of some 50 courses monitored by facilitators specially trained in the transport companies themselves. To date, more than a million workers have taken one or another of these courses.

They are broadcast daily by television on the so-called "Transportation Network". There are TV sets receiving the transmission at more than 1,500 companies, unions, federations and associations, as well as at the Professional Assistance Centres (CAPIT) and Transport Workers' Service Posts (PATE) located by the side of highways in the different Brazilian States.

TV sets are equipped with a decoder to unscramble the signal of the SENAT Distance Education Programme. However, the courses can also be obtained on videotape to be played in classrooms, and the teaching aids on computer diskettes.

Courses cover a variety of subjects, such as: "economic driving techniques, bar code, development of managing skills, financing, renewal and management in road transport, bus conductor, etc." These training activities are being certified as a guarantee that workers have undergone an adequate learning process, and profited from the courses' discussions, exercises and tests. The TV network is also used to impart elementary education contents of grades 1 and 2. This is done through a well-known programme, "Telecourse 2000", that has been validated by the Education Authorities of the different States.

Mexico: the Occupational Competency Standardisation and Certification Council (CONOCER)

In the case of **Mexico**, an experience was begun in 1995 by the Occupational Competency Standardisation and Certification Council (CONOCER), the most important initiative with the greatest scope in the field of occupational competencies in the region. It was an answer to interest on the part of the Government in achieving the participation, among other mechanisms, of the players, by stimulating demand with the aim of supporting the design and development of training based on competency standards and their certification.

The occupational competency system which has been applied includes the following main components:

- To define technical occupational competency standards by branch of activity or occupational group, to be implemented by the social partners with governmental support.

- To establish mechanisms for evaluation, verification and certification of knowledge, abilities and skills of individuals, regardless of the way in which they have been acquired, providing they meet technical competency standards.

- To transform the supply of training into a flexible modular system based on competency standards in order that individuals may move among the modules according to their needs.

- To create stimuli to demand, in order to promote the new system among the population and firms, seeking an equitable distribution of training and certification opportunities, and also catering to the needs of the disadvantaged population.

Following the creation of a system of national coverage, greater stress is laid on the definition of standards for the more general functions in the different economic branches, technological languages and occupational areas.

Finally, this initiative is conceived from the standpoint of finding a valid alternative to link the different types of education and training with the country's employment demands. The challenge is to approach the modernisation of educational and training -for- labour systems, not only so that they respond to the exigencies of adaptation to the new conditions of the economy and technology, but particularly to cater to the need to make education and training available to all sectors of the population, with suitable and relevant content and with the quality required by the labour market. At present there are 45 Labour Competency Standardisation Committees operating in Mexico, 57 pilot projects are being carried out in firms of different sectors of economic activity to foster skill development and training of individuals, and seven certifying bodies and nine Evaluation Centres have been accredited. On 13 December last, the first 120 Labour Competency Certificates were distributed.

Experience of the INA of Costa Rica in the adoption of the occupational competencies (skills) approach

The Directing Board of the INA of Costa Rica decided in 1997 to include the standardisation and certification of occupational skills in its institutional policy. To that end, it started a project for applying the competencies approach in the Tourism sector, with technical assistance provided by the ILO International Training Centre at Turin.

Upon completion of the scheme the INA has modular vocational training programmes in the catering and lodging subsectors for the following occupations: Hotel Cook's Assistant, Hotel Cook, Receptionist, Waiter and Bartender. The INA devised a methodological process for the development of the relevant skills' standards.

To apply the modular system, the following criteria were followed: flexibility, by offering several certifiable occupational outlets; adaptability, multi-functionality, integrity, dynamism and compliance with the paradigm "Education/training for Productive work".

The INA has also laid down methodological procedures for the development of skills standards in general and the modularisation of such standards; for the curricular design of modular units and training modules. It has also established a procedure for labour certification on the basis of occupational skills.

The Costa Rican Institute has further implemented a Teachers' Training Project based on occupational competency standards.

This scheme had the following aim: "Formulating modular training programmes for the training of instructors, on the basis of occupational competencies, for use at the INA itself and at the National Vocational Education System (Spanish acronym: SNFP)".

For that purpose, an educators' job profile was defined and validated; relevant occupational standards were established and modular programmes were devised for the training of teachers for the INA and the SNFP.

Some of the reasons for this initiative were:

- a) There is a present a great shortage of instructors trained in the design and delivery of Vocational Training programmes.
- b) There is no institution in the country to train educators with the job profile required.
- c) The INA, governing body of the National Vocational Education System, is in charge of training instructors in accordance with current demands and requirements of the labour market.
- d) 'Instructors' training programmes have to take into account current changes in educational technology, in particular those regarding training based on occupational skills
- e) Experience has shown that the teaching-learning process requires educators with the necessary skills to ensure adequate training.

Standardisation, training and certification system in occupational competencies in Uruguay

In **Uruguay**, the National Employment Bureau (DINAE), with the co-operation of the IDB, is carrying out a project to study, design and prepare the implementation of a standardisation, training and certification system in occupational competencies. To do so, the project is planning to establish a single register of training bodies and is working on four large areas: a comparative survey of competency systems developed in other countries in order to determine whether they can be implemented in Uruguay; information and training activities involving all the players in society; development of pilot experiences of competency standardisation in different economic sectors; design of a technical proposal and possible strategies for the implementation of a National Competencies System.

Moreover, in the same country, an exhaustive educational reform has been under way since 1995, structured on the coordinates of a search for equity and quality upgrading. In vocational-technical education, the reform proposes to achieve coherent interconnected and high quality technical and technological education, which, as well as attending to its specific tasks (to provide efficient and multivalent training to co-operate with the transformation of productive structures and improve the living conditions of workers), dovetails with and complements Secondary Education in an effort to provide the population with thorough basic and mid-level education. With this aim, the **Technical-Vocational Education Council (CETP-UTU)** is restructuring and re-formulating the education it supplies, the main novelties being the implementation of the Basic Technological Cycle and the Technological Secondary School Certificate. The former is divided into two areas: agricultural and technical, and it proposes to internalise technological culture in adolescents and develop competencies on which a later and complementary, broader and more modern, vocational option may be based. The technological secondary school curricula, three years in duration, with the double aim of being an instance of final mid-level education and granting a Technical Assistant certificate, are designed to be the intellectual, technical and manual ability base providing interdisciplinary and cross-sectional content and approaches, around an organising core or nucleus responding to the main fields of development of the national economy and structured around occupational families. Thus, in 1997, the following disciplines were implemented: Industrial and Basic Chemistry, Thermodynamics, Data Processing and Maintenance, Administration and Services, and Agricultural Technology. The secondary school certificates make possible either entry into university or continuation of technical specialisation studies, in the CETP itself, seeking thus to attend to the training of mid-level and higher technicians according to the training demands of the productive sectors.

The aims of this reform are very explicit regarding developing in young people a solid general education, well grounded in science and technology and with the knowledge, abilities and skills which

will allow them to be flexible and adapt quickly to change and to life-long learning. The starting point is a conception of Uruguay as a small country in the process of development and inserted in a world subject to constant economic, scientific and technological change. The belief is that the educational challenge involves preparing its human resources and its economy for a life of uncertainty. It is thus believed that the symbolic languages to be grasped thoroughly go beyond the capacity to express oneself and communicate orally and in writing, and include computer science, telematics, foreign languages and critical evaluation of audiovisual messages. Also indispensable are a mastery of scientific methods and knowledge in order to understand, interpret and handle natural and social phenomena; acquirement of mathematical competencies to acquire methodology and mastery of strategies for identifying problems and solving them; and a change in socio-historical competencies from the standpoint that cultural boundaries and world geography are becoming imprecise and satellite communications modify information-handling radically. And, last but not least, it is necessary to acquire a technological culture that facilitates the integration of youth into the world of production and labour and their understanding of its technical and social dimensions.

Strategic Planning of the SENAI of Brazil for the 2000-2010 period

Taking as a basis SENAI's **Mission**, i.e. "*Contributing to the strengthening of industry and to the full and sustainable development of the country, promoting education for work and civic responsibility, technical and technological assistance, production and the dissemination of knowledge, adaptation and circulation of technology*", and the Institute's **Vision** of its own future, namely that "*by 2010 SENAI is destined to play a leading role as internationally recognised, technologically renewed occupational training body, managed according to results*" its **Strategic Plan for the 2000-2010 period** establishes the following guidelines:

- Systemic action
- Action upon productive chains
- Improved management
- Market oriented
- Social responsibility
- Sustainability

The Action Plan that accompanies and enlarges upon the previous document consists of 34 processes and 49 projects that aim at the following objectives, among others:

Objective 1: expanding SENAI participation in the vocational education market, to meet the needs both of traditional segments and technologically advanced ones.

Among activities foreseen in connection with this objective are: reviewing and updating curricula and programmes; promoting 25 new CEMEP certifications; training 150 technicians to evaluate 1,500 students in a "Knowledge Olympiad", setting up an occupational information service; implementing a national distance education programme with 13 courses running up till late 2002; introducing a follow-up system of SENAI graduates, and monitoring of former trainees at two Regional Departments.

Objective 3: Offering proactive attention to customers in the national territory, through co-ordinated, standardised and personalised services.

Activities contemplated under this rubric include: developing an integral system of market information based on a survey of 20,000 firms and enterprises; training 30 market agents in Regional Departments; introducing a comprehensive system for the exchange of information through "Infovía", with the participation of 15 Regional Departments; promoting personnel development in enterprises of national scope.

Objective 4: Looking after the demands of productive chains in a systemic, overall manner.

Disseminating and supporting the APPCC system in the different segments of the food production chain among 3,000 firms, 300 of which are in the export business; drafting 4 small thesauri and 4 glossaries a

year to facilitate data retrieval from productive chains; preparing a half-yearly report on the evaluation of focal scenarios for previously studied productive chains; developing 3 business plans for productive chains; supporting the implementation of 3 projects of overall attention to productive chains every year; sponsoring the conclusion of 3 co-operation agreements a year for technological development, favouring technologically updated services.

Objective 6: Expanding SENAI action with micro and small enterprises.

Forging links with IEL and SEBRAE to look after firms of this kind; developing SENAI action strategies for the different types of incubators and technical development schemes; helping 200 small industrial firms to modernise their management models.

Objective 10: achieving excellence in institutional performance in line with accepted practices of quality management.

Mapping and optimising procedures, systematising the management model of the National Department; maintaining ISO 9001:94 standard for the National Department and making ready for ISO 9001:2000; introducing a system of strategic indicators of SENAI performance; adopting State SGPE in all Regional Departments by December 2002 and training 250 new users; consolidating and expanding occupational certification by setting up at least one sectoral committee in every Regional Department.

Design of a certification system in Brazil

In **Brazil**, with the opening up of the international market, the demands for higher product quality levels have increased and, therefore, for worker qualifications. The **Vocational Training and Development Secretariat (SEFOR) of the Ministry of Labour**, jointly with the ILO, implement a project for the design of a certification system. The variety of the supply of training and the interaction of multiple players on a stage in which training is being carried out not only within the framework of an “S system” (SENAC, SENAI, SENAR, SENAT) institutional base but also through a large amount of other private institutions linked to communities or sectors, generate an environment in which occupational certification can provide transparency and facilitate the mobility of workers and the improvement of the quality of training.

The proposal for the system is considering the multiple experiences in the area of vocational training which exist and are operating from nongovernmental organisations, unions and the “S system.” The introduction of the occupational competency approach is one of the critical aspects of the possible proposal; in that regard different international models have been analysed and experiences in Brazilian firms have also been identified and publicised.

The project has its base in a consulting group in which representatives of the Government (SEFOR and the Technological Mid-level Education Secretariat - SEMTEC), of workers (CUT, Fuerza Sindical, CGT), of the SENAI and of the National Confederation of Industry (CNI) participate.

This group, supported by external consultants and through the organisation of various workshops to analyse national and international experiences, is already studying a proposed certification scheme. It is expected that the proposal will be completed this year and, at the same time, some pilot experiences will be developed and other existing experiences will be documented before formulating a final design.

A special feature of this experience arises from the participation of SEMTEC, in an approach to the mid-level technical education and vocational education proposals. The framework created by the new Law on Basic Guidelines for Education enabled SEMTEC to initiate work regarding certification and the introduction of the competencies approach. The aims from the standpoint of education and of labour have much in common and joint action is making possible their alignment.

Integration between the vocational training systems and the higher education systems

Another example of integration between the vocational training system and the higher education system is to be found in Brazil, with the creation, in 1997, of the Textile Industrial Engineering Course, through the Chemical and Textile Industry Technology Centre (CETIQT) of the SENAI of Rio de Janeiro. This innovative offer aims to train professionals specialised and skilled for the rapid development of knowledge, for working in multidisciplinary teams and for exercising leadership focused as enterprising and management action, as well as for perceiving the importance of environmental control and for understanding organizations and business.

The course added to its curriculum some novel aspects: management, environment, quality, humanities, technical standards, safety, sociology, politics and legislation. Its creation seeks to meet the aspirations of textile line employers: from the rural producer to the manufacturers and distributors, who seek to modernise and increase productivity and competitiveness in the sector in the internal and external markets.

A Graphics Technology course was added, in 1998, to the Textile Industrial Engineering Course. Through the SENAI "Theobaldo de Nigris" School, in Sao Paulo, this course, also a pioneer endeavour in Brazil, is to train professionals by solid development of their scientific and technological skills which will allow them to take part in the management of production, administration and business in the graphics area. Lasting three years and with a workload of 3,200 hours, the project was based on European and North American models for training graphics engineers. Along these same lines, the SENAI is preparing to launch new higher courses in the footwear, paper and food areas.

Honduras: alignment between the vocational training systems and adult education

In **Honduras**, the Programme of Education for Labour (POCET) is a Central American example of this alignment between the regular educational systems, and especially adult education and training as life-long education. It is one of the first and richest experiences of integration between traditions among which historically there was little linkage and, at the same time, an experience of dialogue of those traditions with the new debates and paradigms that have involved cross-sectionally the spheres of education and vocational training, in which the new ideas regarding life-long education and training should be specially highlighted. In this case the Ministry of Public Education of Honduras and the National Vocational Training Institute (INFOP) have acted in an integrated manner, at the same time incorporating methodological approaches which are usually only to be found among nongovernmental organisations.

In this regard, the POCET programme is a central reference point for a whole tradition established around the principles of adult education, with its assistance-providing cast and its orientation towards literacy. POCET signalled the way towards integration of the contributions made at the time by all those linked to various forms of popular education with other currents -such as vocational training- with long experience in the field of education for productive labour. The latter currents are also deeply involved in profound debates arising both from the emergence of new production and labour paradigms and the employment market changes and from the persistence of groups and sectors that are left out.

III. Participation and decentralisation

The changes in the organisation, management and conception of vocational training that we have outlined in this document are directly related to the transformations that have taken place in their respective contexts.

Such is the case of the phenomena underlined in Chapter II, on training scenarios, where we showed that training has been adapting to the new concept of lifelong education, to the ways and the speed at which the processes of innovation, development and transfer of technology are occurring, and to the emergence of different and complex labour relations systems.

In our approximation, in Chapter I, to a typology of regional training, we noted that training is currently endowed with a more varied and heterogeneous cast of players, which has notoriously influenced the organisational arrangements that are being adopted.

It seems obvious, on the other hand, that educational, technological and occupational transformations as well as those relating to the roles of historic players in training, and the advent of new players, in turn stem from changes of a more global kind. They govern not only the new reality of training, but practically all areas of political, social, economic and cultural activity in our societies. In that respect, we cannot but mention the progress of globalisation and internationalisation of economies; the frequent modifications of the development strategies of countries of the region and the speedy growth of information, knowledge and technology flows, and their influence on the new forms of production and work.

This scenario of multiple and interdependent transformations includes other dimensions that also point to the changes experienced by the training dispensed in the region. Two of them are fundamental and complementary: **a) there are today greater decentralised levels than before in the management of programmes and institutions; b) this situation stimulates and enables higher levels of participation by greater numbers of more diverse players.**

Decentralisation of training management has at least two main approaches: delegation of administrative, financial or operational tasks to territorially scattered units; and focalisation of efforts, personnel, resources and infrastructure on specific productive sectors.

Whatever the type of predominant arrangement in a given country, we can always find many cases of territorial decentralisation. Many vocational training institutions have begun to hand over higher levels of responsibility to their regional, state or provincial departments. Likewise, policy guidelines laid down by the specialised bodies of Labour Ministries, are interpreted and adapted in accordance with active employment policies that include training components at regional or federal state level. In Brazil, employment and occupational education plans sponsored by several state labour secretariats are an example of this. Another example is the degree of autonomy enjoyed by the regional departments of SENAI, SENAC or SENAR *vis-à-vis* their respective

national departments. Also in the INA of Costa Rica, the SENA of Colombia and INTECAP of Guatemala, among others, administrative and operational responsibilities have been handed down to regional departments.

Although these processes are in some cases the result of the federal structure of countries like Brazil or Mexico, they also take place in other countries with a historically centralist tradition. In any event, it allows training bodies to get closer to the specific cultural, social and economic characteristics of territorially limited districts and facilitates the involvement and participation of a whole range of players who find a natural space for action: local authorities, neighbourly associations, chambers and unions, non governmental organisations, etc.

Examples of decentralisation in sectoral terms are also increasingly frequent. As opposed to old training centres that housed a wide diversity of specialisations, there are now centres and even institutions focusing on sectors like construction, textiles, automotive industry, graphic arts and hotels. In Chapter II we already mentioned the advantages of this concentration in terms of technological updating and diversification of services to the sectors in question. But there are additional advantages in provision of new and fruitful opportunities for participation both by employers and workers and their respective associations.

It seems impossible to give an exhaustive account of the wealth and diversity of experiences of such processes in a document of this kind. We shall try, however, to sketch out the forms and contents of this participation by a wide range of agents whose activities were not described in previous chapters. They are: the private training suppliers; action by non-governmental organisations, and employers' and workers' organisations. We shall finally devote a paragraph to local management of training.

Workers' organisations and vocational training

In Latin America and the Caribbean, the interest, involvement and participation of workers' organisations in vocational training is notoriously higher than two decades ago, if we consider their determination and rigour in dealing with the subject, and the different ways in which they participate. Strictly speaking, these organisations have always had as a central item of their vindications, to make education accessible to all the population as a mechanism to ensure a better distribution of opportunities regarding employment, earnings and personal and social development. Workers' organisations have played a leading role in the history of vocational training in the region. Nevertheless, their participation has had ups and downs directly related to the political, social and economic circumstances that both training and trade unions went through along the years.

Trade unions were part and parcel of the pioneering efforts in the region that resulted in the creation of a great number of national vocational training institutions, and continued to take part in their development from the governing boards of many of them.

This involvement, however, was undermined in the mid-seventies by a number of factors, mainly the detriment in several countries of public freedom in general and trade union rights in particular.

Secondly, the different manner in which economies of the region found access to international markets, through open trade policies, radically upset the characteristics of local markets and labour relations. Until then, the representative membership of those organisations had been urban, industrial wage-earners, predominantly male. After these processes the industrial sector began to lose weight in terms of employment; participation of women in the labour force increased, as well as new contractual arrangements, self-employment, informal work and unemployment. Faced with all these developments, many trade union organisations found it very difficult to adapt to the new situation and lost bargaining power in various ways.

In the third place, together with the above transformations new notions were accepted in the region about economic development strategies and labour and production management, that were diametrically opposed to the old productive paradigms. Although they strongly emphasised technology and qualification, they tended to consider training as something almost exclusively dependent on productivity and competitiveness strategies, objectives normally linked to the employers' viewpoint. The fact often led unions to see occupational training as one more instrument at the service of capital, so that imparting it was more the responsibility of enterprises than of workers.

There is therefore a turning point, and what until the mid-seventies had been a situation of equal participation by employers and workers (although in contexts of strong State intervention) became a scenario in which workers' organisations drifted away from decision-making in vocational training, and employers took the lead in that respect. This picture saw some positive changes in recent years, owing to a number of factors, namely:

- There is a new conceptual volteface that reinserts training in the educational scenario, bringing its players and arrangements closer to regular education systems, and propounding a new idea: lifelong education. Insofar as training is recognised to be an educational fact, it is also envisaged as a tool for building a modern and democratic citizenry.

- The emergence of new forms of organising labour and production that place knowledge at the centre of productivity and competitiveness strategies, have also turned training into a key element for access to employment. Although training does not seem to directly ensure the creation of new jobs, it is possible to favour equal training opportunities, and thereby attain greater social equity in connection with employment, earnings and personal and social development.

- The explicit tie established between training and employment and earnings in the new systems of labour relations, opens up avenues for action by specialised bodies of trade union organisations to unlock a situation in which workers were losing ground. Having a closer look at the current challenges and problems of enterprises and national economies, and knowing what role training policies play therein, provides workers' organisations with a clearer insight –and consequently more clout– to play an active role at the various negotiation levels: enterprise, sector, country, even international.

This greater involvement of trade union organisations with institutional training, can be seen both in conceptual development and in the plane of action. There is a notorious increase in the number of specialised bodies dealing with the subject in various union organisations of the region; they carry out diagnostic studies and research, produce analytical documents and make trade union proposals in that connection. A growing number of trade union workshops, forums and seminars are organised to discuss training and its links with aspects of strategic importance to unions. Trade union training activities also deal with vocational training, and are beginning to consider the links among the different types of education and training.

Regarding trade union participation in decision making and implementation of training activities, there is a wide range of experiences, in varying stages of development, showing that union players are determined to play a leading role in the field of training.

The following is a summary of the different forms of trade union participation in training:

Trade unions' participation in vocational training

- Inclusion of vocational training in collective agreements –already mentioned in Chapter I– has been to a large extent the result of trade union concern about the matter, and consequent pressure in negotiations, to have clauses ensuring access of workers to training.
- The same can be said about recent labour legislation, where the establishment of vocational training as a fundamental right of all citizens, is in many cases due to active participation and lobbying by trade unions.
- Revitalised trade union participation in the directive bodies of VTIs of several countries, partly encouraged by the sectoral focalisation processes of those institutions, facilitates participation by intermediate levels, like the federations of the respective sectors. This can be seen in the summit committees and liaison committees at the INA, of Costa Rica, and at decision-making levels in many vocational training institutions of the region: INOFTEP (Dominican Republic), INAFORP (Panama), INFOP (Honduras), INATEC (Nicaragua), INTECAP (Guatemala), SENA (Colombia), SNPP (Paraguay), INCE (Venezuela), SENAR (Brazil), and others.
- Instances of direct management of vocational training institutions, foundations and programmes by trade unions. Examples of this are, in Argentina, the Construction Training Foundation, dependent on the construction workers' union (UOCRA), as well as similar undertakings by the commerce and services, insurance, metal mechanics and other unions. In that country, workers' organisations that implement important institutionalised training activities come together in the "Trade Union Forum for the Integral Training of Workers", which acts in the sphere of the General Labour Confederation (CGT). In Brazil, three of the main union federations (CUT), Força Sindical and CGT, carry out training programmes both at central level and through their branch affiliates. These experiences have considerable weight. This is particularly evident in Argentina, where the vocational training offer by trade unions is the only one that has attained permanence and a significant coverage. In fact, and although CONET still existed, enrolment in trade union programmes was larger than in public training institutes.
- Participation of trade union representatives in tripartite bodies created by Labour Ministries, dealing with training, among other things. Examples are: the National Training Board (JUNAE), tripartite entity of the Ministry of Labour and Social Security (Uruguay); trade union representation on the governing boards of the Fund for the Protection of Workers (CODEFAT) at national, state and municipal levels (Brazil); participation in the tripartite National Training Council, advisory body of the Ministry of Labour and Social Security of Chile.

- In Mexico there is another tripartite experience, also in connection with the Secretariats of Labour and Social Security and Public Education: it is the Council for the Standardisation and Certification of Occupational Competencies (CONOCER), which promotes participation by all stakeholders in the development of training based on standards of competency, and certification thereof.
- First instances of bipartite management of training in the region. Example: the Foundation for the Training of Construction Workers and Employers, in Uruguay.
- Participation in new bipartite bodies, regulated by law, at the level of enterprises: Joint Training Committees, of Mexico, and Bipartite Training Committees created in Chile pursuant to the Training and Employment Statute, which establishes that programmes agreed upon with the enterprise's bipartite committee, entitle the enterprise to deduct up to an additional 20% of the expenses incurred, apart from training costs.
- Some central unions have also managed to develop institutional mechanisms that, among other things, do research in training and related subjects, provide conceptual information to trade unions on them and act to a certain extent as "think tanks" for workers' organisations that seek to play an active role in spheres where vocational training is discussed and negotiated. Examples are: the Instituto Jauretche, of the Argentine CGT; the Inter-union Department of Statistics and Socio-economic Studies (DIESSE), of the three main Brazilian central unions; and the Institute for Higher Trade Union Studies (INAESIN) of the Workers' Central Union of Venezuela (CTV).
- At international level, the two main regional trade union organisations, the **Inter American Regional Workers' Organisation (ORIT/CIOSL)** and the **Latin American Workers' Confederation (CLAT)** have recently highlighted training in current union discussions, both through their chief delegates, trade union training activities and awareness promotion.

This listing is only part of the examples that might be quoted in a more exhaustive description, but the instances included are proof of the great efforts of trade union action in Latin America and the Caribbean to take part in vocational training. This is auspicious and positive for workers' organisations, but most importantly, it is also beneficial for training itself. Union participation helps significantly to strike a balance among the interests at play around vocational training, already stressed by the various objectives it has to fulfil. Among other things, trade unions might contribute in promoting integrating conceptions and practices to mitigate the risk of polarisation in our societies. This refers both to individuals and enterprises. Regarding individuals, to prevent a widening of the gap between those who have access to knowledge and employment and those who are condemned to social exclusion. Regarding enterprises, to prevent the consolidation of a situation in which some have good human resources policies and make flexibility and competitiveness a banner for everyone, while others do not invest, become ossified, do not modernise and are doomed to disappear in a competitive market, thus increasing the problem of unemployment.

Employers' organisations and vocational training

At present, in all countries of the region employers are being encouraged to play a leading role in various spheres, vocational training among them.

Historically, the move to create vocational training institutions started in the region with the birth in Brazil of two bodies associated to employers' organisations: the National Industrial Training Service –SENAI– in 1942, and the National Commercial

Training Service –SENAC- in 1946. These institutions that, as pioneering experiences, left a deep mark in the region, were since their inception attached to the respective employers' federations of the industrial and commercial sectors, and remain so to this day.

Along subsequent decades, the corporate sector continued to have great influence on vocational training, and although most of the institutions created later did not adopt the management pattern of their Brazilian forerunners, they did opt for tripartite mechanisms wherein employers lent permanent support and co-operation.

The changes described earlier concerning the way in which regional economies became internationalised through open trade strategies, brought about new imperatives and challenges. Significant among them were those relating to the speed of technological innovation and the requirements for updating occupational skills and qualifications. Training then appeared as a central element in strategies to raise the productivity and competitiveness of enterprises. This led enterprises and their organisations to become increasingly involved in aspects like the management, financing and methodologies of training, and to participate more actively in vocational training institutions. They also took the lead in processes whereby the management of former public institutions was taken over by employers' organisations, or in some cases training bodies issued forth from those organisations.

In any event, and whatever the nature of training institutions (public or private), those that have most successfully adapted to the current productive, labour and technological context invariably owe their success to a permanent dialogue and interaction with enterprises, that have become priority objects of their attention.

Apart from these corporate initiatives and efforts, training practices implemented by enterprises have expanded. Sometimes, services are outsourced, but on other occasions in-house training is developed. This is a growing trend, empirically associated to the most successful competitive strategies.

On the other hand, the interest of employers in training goes beyond the concept of a tool solely devoted to improving workers' skills. Quite the contrary, it is seen as an instrument that can also upgrade middle managers, executives and even employers themselves.

But the influence of corporate players covers more aspects than those directly related to management, financing and implementation. Employers' organisations have also introduced their own concepts and notions of training in the diverse spheres where the subject is discussed, whether they be national tripartite or bipartite agreements, sectoral arrangements or bargaining at enterprise level. It is probably in this respect that there is the greatest asymmetry between employers' and workers' organisations. This disparity has only been lessened in the last few years, owing to the new measures taken by trade unions, as we saw above.

The following can be mentioned among the many examples of employers' participation in the field of training in Latin America and the Caribbean:

Employers' participation in vocational training

- The management of some vocational training institutions has been directly taken over by entrepreneurial chambers. This was already the case of SENAI and SENAC, in Brazil, but in recent years they have been joined by ICIC (Mexico), INACAP (Chile), INFOCAL (Bolivia), SENATI (Peru), SENAT (Brazil), CIED (Venezuela), and others. This has given corporate organisations an extremely powerful instrument regarding both infrastructure and coverage, as well as in the prior accumulation of human capital, methodologies, teaching material and knowledge.

- Various sectoral chambers have been enlarging the repertory of services they offer to their members. For instance, they have entered the areas of research and development, and technical education and training. By way of example, we can mention: In Chile, the services offered by the **Chilean Construction Chamber**, through three corporations (Construction Research Corporation; Construction Educational Corporation and Construction Training Corporation); action by employers of the agricultural sector under the **National Agricultural Society**, that through its **Social Development Corporation for the Rural Sector (CODESSER)** and just in the area of education lends support to formal schooling, training, teachers' further training and technological transfer; and the far reaching activities of the **Production and Commerce Confederation**, through INACAP. In Venezuela, the above mentioned initiative of the companies of the SIVENSA Group, through the **FUNDAMETAL Foundation** and the **International Centre for Education and Development (CIED)** dependent on the State enterprise Petróleos de Venezuela. In Mexico the **National Chamber of the Textile Industry (CANAINTEC)** through the **Textile Training Centre (CATEX)**, which besides training services has technological and quality management services; as well as ICIC, dependent on the **National Chamber of the Construction Industry**. In Argentina, the companies under the Graphic Arts Chamber of Buenos Aires have provided strong support to training in their sector through the **Gutenberg Foundation**. In Colombia, there are entrepreneurial initiatives in the graphic arts, plastics and rubber sectors, with their Technological Development Centres **IFTAG** and **ICPC**, respectively, that promote training, among other activities.

- Besides initiatives directly related to employers' organisations, there is a great number of experiences of in-house training programmes, particularly in the larger enterprises.

- Experiences in bipartite management are beginning to be known, as mentioned in the previous paragraph, in sectors like construction and pulp and paper (Uruguay); or new management formulas at enterprise level (Chile, Bipartite Training Committees).

- Finally, the tripartite arrangements at the level of Labour Ministries where employers take active part: JUNAE (Uruguay), CODEFAT (Brazil) and National Training Council (Chile), among others.

The main conclusion that can be drawn from this brief outline of entrepreneurial participation in vocational training, is that employers have assumed a leading role and are the players that have increased their influence to the largest extent, whether in terms of infrastructure, knowledge, conceptualisation or political influence.

Having said this, however, we must not overlook two great problems that underlie this strong entrepreneurial sway in training. The first one is that, from the point of view of the general interests of society, it is advisable that the other players involved should also have a solid presence, that can be felt in the various decisions regarding training, in order to reserve its dual role of contributing both to the competitiveness and productivity of enterprises, and to social integration, cohesion and equity.

The second problem lies in the very diversity of the entrepreneurial universe of the region. In that respect, there is undeniable evidence that very large entrepreneurial sectors are still barred from access to technology, credit and training. Considering that those sectors, made up by formal or informal small and micro enterprises, not only give

employment to the majority of our countries' populations, but are the only ones where employment grows to a certain extent (though not much), it is clear that they should be the object of active modernisation policies. Many of the corporate organisations mentioned above are implementing action for their benefit, but it seems obvious that in order to overcome these situations, a combination of efforts, resources and experience is required that must also come from the State, workers' organisations and civil society.

Private and non governmental training offer

Something that has happened in all countries of the region is the **appearance in recent decades of a private market of education and training** (particularly training). The degree of development and consolidation of these markets differs from one country to another, depending on a number of factors. However, the main issue is not the number of private suppliers but their strengths and weaknesses to provide the different types of training that society and production require.

Anyway, the proliferation of this new training offer is clear evidence of the importance it has acquired at all levels, not only among enterprises, governments and the various productive, labour and social organisations, but in the population in general. Although education has always been visualised as one of the most efficient vehicles for social mobility, during a long period of the history of our countries the notion was linked to formal and regular education. To go up in the educational ladder meant having greater possibilities and opportunities of different kinds: jobs, earnings, prestige, social capital, participation. In that view, that reflected the economic and social reality of a certain period of our history, having a technical or professional career was seen with different nuances, according to the cultural values of each society and its perceptions about manual work versus intellectual activities, training for work and academic education. But it always implied, more or less, being "halfway up" in the scale of social, political and economic opportunities.

The situation has now changed radically. To begin with, we are witnessing what has been described as a "gradual devaluation of educational credentials", meaning that they tend to lose relative value (precisely as tools to have access to certain levels of employment, salary, responsibility, prestige). This has caused a veritable "rush forward", in which it is constantly necessary to reach higher levels of education in order to have access to the same opportunities. As educational offers are standardised, intermediate levels are "compressed" and lose differentiation in their capacity to provide that access to opportunities. It is increasingly necessary to reach the higher levels of qualification to be differentiated and to compete efficiently. Nevertheless, this is not the only alternative. The other one is to seek differentiation on the basis of an original professional profile, supplementing regular studies with a special combination of technical courses. This is also valid for different age groups: a young man or a young woman will do their regular studies, but insofar as they can they will try to take courses in languages, computer science, business administration, or technical training. An adult person, who perceives that the rules of the game begin to change in his work environment, and that the diplomas he obtained 15 or 20 years ago are no longer sufficient, will also try to grasp and handle those "new things" that new technologies bring with them.

Building up a unique, personal profile to have access to more and better occupational opportunities, bringing knowledge up to date so as not to lose footing in the wave of technological progress are –perhaps rather simply stated– subjective reasons in the current social, labour and technical context, that explain why there is a great demand for training courses, which to a large extent has stimulated the emergence of a private market.

Without getting to the bottom of this explosive growth of the private training offer, we must also point out that the conditions that provoked it did not exclusively stem from a “pure” market dynamics, as described in previous paragraphs, although that was also an important element. Also present in the last few decades was the advent and development of a new generation of public policies regarding training and employment; policies based on the assumption -or requirement- of the existence of a private market to reach their objectives. They resulted in programmes wherein the State had the prerogative of managing and financing, and delegated execution of training to private agents. This was no doubt a powerful incentive for the emergence and consolidation of the new offer.

An analysis of what has happened in this new sector of training offer shows that, on the one hand, it has the problem of being aimed almost exclusively at the commerce and services sector. Although this sector grows steadily in all economies, this training slant would seem to be due to a matter of costs and investments, notoriously lower to implement most courses for the tertiary sector than for industry or agriculture.

On the other hand, as already mentioned, it is a sector that grew under the protection of certain policies that subsidised and encouraged the emergence of a private offer: training and employment programmes for special population groups (young people, women, micro entrepreneurs, soldiers discharged from armed conflicts, etc.); and subsidies to enterprises for implementing training activities. This means to say, then, that the private training market is in most cases the result of a substantial change in State intervention, namely, withdrawal of the State from direct implementation, plus incentives and subsidies to the private offer.

Insofar as this change in the role of the State and this delegation of activities did not take place with a pre-existing private offer, but rather that the market emerged precisely as a consequence of changing public policies, weak spots have appeared in some places: low quality courses, lack of adaptation to the needs of enterprises, instability of training suppliers, etc.

These kinds of problems must be viewed in the context of a process whereby, in the medium term, a selection and consolidation of the private offer will take place. However, there are at least two aspects that remain unsolved, even assuming that private training offer will consolidate.

The first one is how to meet demands that are not immediately profitable. The typical case is the provision of training services for the more disadvantaged population groups. Except when –once again- there is a specific line of financing by the State, it is hardly to be expected that institutions that are mostly profit making may be interested.

To a certain extent, now comes on the scene the other type of agent that we enumerated among players in training: **non governmental organisations, and others.** These non profit agencies, very often pursuing the social and economic development of certain groups or communities, may offer training for that purpose. They frequently make methodological and conceptual innovations that are subsequently replicated elsewhere. But there is another problem here. As these organisations often have limited financing, and human resources that usually work on a voluntary basis, they are subject to a certain degree of instability, so that many of their experiences are successful for a while, but cannot be sustained.

Another aspect that cannot be properly looked after by relying solely on the private training offer, is the fact that **in order to have sense and usefulness, training services need at present to be complemented by other activities and services.** As we shall see below, only the kind of training that gets deeply involved with technological innovation and transfer, that is conceived and developed in the framework of existing social relations, and that pursues long term training objectives, will reach an optimal degree of relevance, quality and adaptation to productive and social requirements.

Consequently, both types of players –private offer through institutes and academies, and social, community and non governmental organisations– must be considered part of the new training scenario regarding execution of programmes and activities.

Local management of training: a space for more actors and opportunities

A part of the decentralisation processes that have been taking place in many countries of the region, is the increasing revaluation of local or regional spheres in the generation of both knowledge and wealth. Accumulated research on industrial districts and local productive systems shows the strong interconnection that exists between economic and socio-cultural phenomena, as well as the capacity of certain regions to produce, innovate and sell, regardless of the structural conditions of the country to which they belong.

Factors like collective identity, a feeling of belonging, a spirit of collaboration and innovation, among others, facilitate the involvement and participation of a wide range of local players, without whom it would not be possible to attain the stage of systemic competitiveness that characterises paradigmatic regions regarding local development.

In this framework, occupational training, which is an important component of all active employment policies and an essential requirement for the promotion of economic productivity and competitiveness –at national or regional level– also becomes a matter of regional interest and importance. In this respect, there is a growing number of experiences in which training is planned and managed by local agents, or by institutions with national coverage that adapt contents and form to the specific requirements of the region in question.

Without necessarily including all, we submit below a number of experiences to give an idea of the way in which different countries have tried to deal with the social and economic development and training needs of enterprises and populations at local or regional level. We shall consider private initiatives by institutions or organisations, as

well as the setting up of networks including a diversity of players of various kinds, whose interaction is guided by the common purpose of improving the economic and social conditions of a given region.

Argentine: Vocational Training Council of Rosario and its Region (CCFP)

In the Argentine Republic, the **Vocational Training Council of Rosario and its Region (CCFP)** was created in late 1997. It is a bipartite entity made up by trade union and entrepreneurial organisations, whose objective is the improvement and upgrading of the occupational profiles of all workers, both employed or circumstantially out of work; in the latter case they are retrained. To achieve its ends, the **CCFP** intends to undertake the following activities, among others:

- Exchanging ideas, experiences and knowledge;
- Organising congresses, lectures, seminars and courses by specialised individuals and/or institutions for the benefit both of workers and employers;
- Co-operation with universities, Argentine or foreign public and private organisations or international agencies promoting manpower training and upgrading.
- Co-operating and co-ordinating efforts with public or private organisations pursuing the same or similar ends.
- Creation of libraries, newspaper collections, film libraries etc. to make bibliography and knowledge available in all training areas of interest to the **CCFP**.
- Promoting research, studies and specialised papers in the above areas.
- Developing and conducting job profile diagnoses identifying the basic and specific skills – occupational standards – of general competency tasks, and work posts within them, in different sectors of activity.
- Supporting alliances among firms and enterprises and training institutions in order to bring down the costs of modules, and co-ordinating them to provide occupational outlets saving time and resources for workers and enterprises.

CCFP is directed by a Board of fourteen members, seven of which represent trade unions, the other seven, employers' associations.

Among activities on the working schedule of CCFP were, first of all, activities of organisational and institutional consolidation and management with national and municipal authorities; management of foreign technical assistance; management of legal representation of CCFP, solving infrastructure problems. These items were followed by work guidelines for the direct improvement of occupational training in the region, with tasks such as: initial survey of training needs of the public and private sectors regarding basic, general and specific skills; strengthening of the training offer through actions aimed at improving curricula and encouraging competition on the basis of costs and quality of courses, and the installation of sectoral committees to identify specific competencies at the request of sectors.

Local management of vocational training in Brazil

In Brazil, the long and far reaching experience of **SENAI**, **SENAC** and more recently **SENAR** in the agrarian sector, are examples of national action that finds concrete expression according to the reality of the different federal states. All these Brazilian institutions have a regionalised structure, in which the Regional Departments enjoy a high degree of autonomy *vis-à-vis* National Directorates. This independence is not achieved, as in other cases, by virtue of a central decision to delegate administrative, policy or organisational decisions; it is backed and legitimised by the fact that, in each state, the respective local industrial or commercial chamber is responsible for the management, infrastructure and resources of the Regional Department. This active involvement of local entrepreneurs in institutional management, is reinforced by the fact that this same decentralisation and autonomy facilitates a whole range of co-operation and business schemes within the social, economic and cultural sphere of the State, with local authorities, trade unions or civil society organisations.

Public Vocational Training Centres in São Paulo and Ceará

Also in Brazil, the Training and Professional Development Secretariat (SEFOR) is sponsoring schemes to strengthen local management, in order to promote the involvement of new players in the administration, management and development of training programmes. One of the main lines in this connection is the creation of the **Public Vocational Training Centres (CEFPF)**, through the **States' Secretariats for Employment and Labour Relations (SERT)** of the states of Sao Paulo and Ceará, among others. They are designed as flexible sources of training supply to meet the specific and permanent demands of young and adult workers, employed and unemployed, independent workers and micro enterprises. It is a public, collective and co-operative training offer managed by the local community.

Its principal mission is to co-ordinate the needs and requirements of all local players, and find joint solutions that may be available in the communities themselves, or in outside communities, such as state and federal universities. Training programmes favour a selective appropriation of scientific, technical and technological knowledge and more general information on man and society, that is essential to the education of the working citizen.

Apart from its training programmes, the CEFPF constitutes an information source for workers and employers, fostering greater integration between training actions, enterprises and communities. It also serves to co-ordinate among all education professionals who act on the formal side of training, or at enterprises, in trade unions and governmental organisations.

National Plan for the Further Training of Workers (PLANFOR) in Brazil

Also of great importance is the **National Plan for the Further Training of Workers (PLANFOR)** that SEFOR began to implement in 1996. PLANFOR action follows three broad lines:

- **Conceptual development:** which includes the building and consolidation of a new conceptual and methodological approach to vocational education, guided by the effective demand of the productive sector (gathering together the interests and needs of workers, employers and communities), with a view to raising productivity and the quality of labour, improving workers' employability and the living conditions of the population.
- **Institutional co-ordination:** mobilisation and strengthening of a national vocational training network made up by public and private institutions having infrastructure and experience in the field, such as: federal and state public schools, universities, "S System", non governmental organisations, trade unions, foundations, etc.
- **Support of civil society:** aimed at enlarging the supply of flexible ongoing training through the above network, in order to train and retrain at least 20% of the economically active population every year, in particular those groups that traditionally have less chance of benefiting from training action.

Two mechanisms have gradually been consolidated for the implementation of PLANFOR. Their goals are participation, decentralisation and strengthening of local implementation capacities:

- **State Further Training Plans (PEQ)**, that comprise national and state further training programmes, to meet demands negotiated at Municipal Employment Committees or similar bodies, implemented by the local network of public and private vocational education, contracted by the Labour Secretariat in accordance with the legislation in force.
- **National and Regional "Parcerias" (partnerships)**, implemented through agreements, contracts, co-operation arrangements or protocols signed by CODEFAT, the Ministry of Labour, SEFOR, workers' unions, foundations, universities and other ministries, prioritising conceptual and methodological development and institutional co-ordination.

Local management of vocational training in Colombia

The **National Training Service (SENA)** of Colombia, through initiatives like the “Vocational Training Programme for Municipal Development”, the “Programme for the Attention of families and special population groups” and the “Programme for the Attention of the social economy sector”, has endeavoured to contribute to the development of the human resources involved in municipal management; support the promotion and development of associative economic units for the generation of employment, earnings and social promotion; and integrate disadvantaged persons or groups into the development processes of the country, in conditions of equality.

The “Vocational Training Programme for Municipal Development”, addressed at municipal or departmental authorities, technicians of Public Entities and non governmental organisations, and organisations of the active social players in municipalities and departments, includes:

- *Training:* in Planning, Financial Management, Formulation and Management of Projects, Organisational Management and Community Participation in local management, with emphasis on the training of trainers and officials of departmental and municipal administrations.
- *Consulting services:* to departmental or municipal councils, on institutional development.
- *Technical assistance:* on aspects relating to the above mentioned priority areas.
- *Technological services:* at consulting level, to solve specific problems and criteria of municipal development.

SENA also takes part in the implementation of training and consultancy projects for municipalities.

The “Programme for the Attention of the social economy sector”, addressed at directors of social economy enterprises, affiliates of economic units and technicians belonging to public or private organisations and NGOs, offers:

- *Training:* for the promotion of associative enterprises and second level organisations, for diagnosis and formulation of development plans.
- *Consulting services:* for socio-entrepreneurial diagnosis, formulation and implementation of plans of action and development, and inter-enterprise integration at regional level.
- *Technical assistance:* in areas pertaining to associative enterprises.
- *Technological services:* to overcome difficulties in the design, quality control and modification of products and services.

Finally the “Programme for the Attention of families and special population groups”, addressed to persons who work with, or belong to some disadvantaged group, offers services of technical and organisational training to agencies that work with those populations: consultant services on the implementation of vocational training and community organisation methodologies and technologies; technological services focusing on the productive processes of those populations.

Paisajoven Corporation in Medellin

Also in Colombia, the experience of the **Paisajoven Corporation** was the result of a bilateral agreement between the Municipality of Medellin and the German Technical Co-operation (GTZ). It operates in the form of a network that includes municipal bodies, ONGs, foundations, universities and a number of agencies specialising in work with young people.

The objective of Paisajoven is to promote co-ordination among organisations, to professionalise its personnel and organise pilot experiences. The approach adopted by the Corporation implies the training of its personnel, reinforcing impact and co-ordination (development of institutional alliances) for the improvement of the services of organisations. To that end training services are implemented, as well as management consulting, tools grants, a diploma on methodology for the design and evaluation of projects, and courses and seminars by specialised institutions or agencies that work with the young.

The main contribution of Paisajoven in the area of youth employment in Medellin has been a regional model of training for employment. It has identified lack of training as the main cause of structural unemployment, and singled out the local sphere as appropriate for meeting existing training demands. Although these initiatives are costly, they have impact in the medium term.

Training and employment are one of the fourteen lines of action of the Medellin Plan, jointly developed by the State and civil society. Thus, the Municipality of Medellin has promoted a pilot project on "Management model for the training and access to employment of the young", which aims at inter-institutional co-ordination to improve the training offer, promote more efficient management of resources, and have influence in the medium term on structural unemployment.

Chile Barrio Programme: support to inhabitants of irregular settlements

In Chile, the Programme "**Chile Barrio**", of the National Training and Employment Service (SENCE) aims at joint action by public organisations that have direct incidence upon the most important poverty indicators. It tries to open up avenues by attracting and co-ordinating financial resources, technical know-how and solidarity support from public programmes and services and the private sector, and making them available to the inhabitants of irregular settlements, so that, with the support of the Programme itself and of local authorities, those inhabitants may join in the collective effort.

The objective of this programme is to help the inhabitants of these precarious settlements in their struggle against poverty. For that purpose, four areas of intervention have been established; community development and insertion into society; occupational and productive enablement; improvement of housing and neighbourhood; and institutional strengthening of programmes aimed at overcoming poverty. Regarding occupational and productive enablement, the specific objective is to provide to the inhabitants of these settlements better opportunities to generate earnings, through occupational training actions for alternative employment and self-employment, and support of initiatives for independent work and micro enterprises. To reach those goals, the Programme has two lines of action: on the one hand, training for work, occupational training and support for accessing the labour market; secondly, financial and technical support and consulting, if necessary, to local productive initiatives that may have possibilities of continuity and expansion.

El Salvador: Don Bosco Industrial Range

A somewhat different experience is that of the Don Bosco Industrial Range project, at **San Salvador, El Salvador**. This scheme is a clerical response, based on Salesian pedagogy, to the problems of poverty and marginalisation in some areas of the Salvadoran capital.

The Don Bosco Industrial Range is aimed at promoting the optimal and dynamic coming together of the requirements of authentic working communities and those of modern undertakings. Based on a strong co-operative spirit, it seeks to achieve the following:

- Striking a balance with its operational area
- Establishment of a commonality policy (common retraining approaches, homogeneous labour standards and training policies, regulation of personnel transfers)
- Commonality of services

- Complementation of catalogues on the basis of products
- Optimisation of trademarks and networks
- Optimisation of export structures
- Technological planning
- Centralisation of sales policies

The training and educational activities of the Don Bosco Range adhere to the “preventive postulate” of the Salesian Educational System. The decision to locate the project in one of the areas with the highest delinquency indexes of San Salvador clearly shows that it is bent on prevention. It lends assistance to the community by promoting the constructive capacity and energy of young people. The project is succeeding in the attainment of its goals and through the years it has managed to enlarge and improve its training and productive offer.

To sum up, and in view of the above experiences, it becomes apparent that local players have knowledge and abilities that are best put to use if co-operation networks are established among them, and decision-making is delegated to their sphere.

Delegation of responsibilities and decision-making to local or regional level in vocational training encourages two things: firstly, better adaptation of training contents to local requirements and productive processes, and to specific aspects of regional production systems, and secondly, greater involvement and commitment by local players, insofar as they are themselves responsible for a good part of the training imparted.

IV. By way of conclusion

1. The transformations that have taken place in recent decades in the field of training in Latin America and the Caribbean have involved both the concept of training itself and the organisational forms it assumes. They have affected the financing schemes of training activities, their links with labour systems, innovation, development and technological transfer systems, regular education and the various players that take part in their design, management, funding and implementation.
2. The concept of vocational training seen as the orderly and systematic transmission of knowledge, abilities and skills to trainees during a certain period, normally before their active life, in order to qualify them to perform in specific work posts, has undergone deep modifications.
3. At present, the various national experiences point to a concept of training as a permanent adjunct in a lifelong process. It is addressed not only at the operational levels of occupational structures, but conceived as a vertical offer by productive sectors or technological areas. Rather than a bundle of skills, knowledge and abilities to perform in a specific work post, it is considered as a series of competencies of different levels enabling individuals to deal with a variety of jobs, occupations, labour situations and work posts. Rather than functional “coaching” within a scheme of labour division that made a clear-cut distinction between conception and implementation, it is viewed as the overall education of persons both as workers and citizens.
4. The institutionality or organisational forms of vocational training have also undergone deep changes and witnessed many innovations. From a relatively homogeneous picture throughout the region, with a strong presence of national institutions that monopolised the bulk of vocational training activities, we have now passed to a scenario of widely diverging organisational arrangements.
5. Side by side with the model represented by large national or sectoral training bodies, public or private in nature, Ministries of Labour have appeared on the scene as leading players, introducing a new logic in relation to the role of the State regarding vocational training policies and systems. Both workers’ and employers’ organisations also have a more active part in training, either managing or co-managing institutes, taking part in new tripartite or bipartite arrangements at national, sectoral or local level. As opposed to what happened in the past, many countries have seen a sprouting offer of training services in private and non-governmental areas, strongly supported by a new batch of public policies in the field. A veritable training market has been developing and expanding.
6. The financing of vocational training has also undergone a great diversification. Whereas in the past there were only two basic funding schemes, namely taxes or levies with a specific end or appropriations from the general budget of the Nation, at present those same mechanisms coexist with a wide range of provisions, incentives and tax rebates, the sale of consultant services, technical assistance, certification, etc. as well as alliances for co-operation and complementation of resources, and so forth.

7. Although vocational training has always been closely linked to the world of labour and production, its high visibility within labour relations is relatively recent. This becomes apparent, for example, in the expansion and more specific nature of labour legislation relating to vocational training; the incorporation of training clauses in collective bargaining and, in a more general way, the importance attached to the matter in various areas of social dialogue at the level of firms and sectors, locally or nation wide, and in regional integration processes. Another indication of this new “labour slant” of vocational training is the central position it has acquired in the agendas of Labour Ministries, trade unions and entrepreneurial chambers.
8. From a notion of training as a supplementary field of activity, divorced from technological innovation and development, the various country experiences are now shifting to close integration of the activities of both realms. Without losing sight of its essential mission, some institutions include training within the overall framework of the needs of firms, sectors or productive chains. This has led to the development of new services, such as consultancy and technical assistance, applied research, technological information, etc., side by side with the training itself. The result is not only a more complete offer of services but also an incentive for the technological upgrading of the infrastructures, equipment, methods and contents of vocational training.
9. With some exceptions, vocational training grew in the region as a separate system from regular education schemes. Although theoretically complementary to each other, they showed in reality a disparity of objectives, little co-ordination between themselves and very often different sets of social values. Both systems have had to face crises and criticisms. Nevertheless, co-ordination efforts have been made, and they have shared common subjects and debates that are leading to a coming together in the search for greater complementation of resources, experience and knowledge. The objective that seems to beckon is the building up of national permanent education / training systems, capable of meeting a growing, diverse and dynamic demand.
10. In many countries of the region vocational training is witnessing decentralisation processes that open up the field to more players than in the past. Regarding the execution of training activities there is nowadays a wider and more diverse scenario. Despite the fact that it is sometimes threatened by a risk of fragmentation and scattering of efforts and resources, training now has the possibility of attracting more actors within the framework of a national effort. But also in connection with decision-making and management, opportunities and tripartite openings have arisen through Labour Ministries, local and sectoral arrangements, bipartite agreements, dialogue and regional integration. Those are some of the novelties in this area.
11. Trade unions have approached training not only vindicating the right of workers to it, but also trying to take part in it and negotiate its conditions. Furthermore, they have endeavoured to link training to aspects such as employment, wages, working conditions, occupational health and careers.
12. Employers’ organisations, for their part, have assumed that training is a key factor in strategies to raise productivity and increase competitiveness. They have

consequently sought to play a more central role in the management and delivery of training, apart from taking part in negotiations about it.

13. The private training and vocational education offer, that was formerly scant as compared to the scope of national training bodies, has now grown enormously in most countries. This development seems to be favoured on the one hand by the social and economic value newly ascribed to training, and on the other by the incentives provided by recent public policies in the matter.
14. Experiences in local management of vocational training are still incipient, but they constitute a promising ground for innovation, regarding both the incorporation of new players and resources and the elaboration of new forms of meeting social and productive needs within the framework of local development schemes.
15. The countries of the region are therefore faced with an impressive challenge, i.e. the collective and negotiated erection of national (eventually supra-national) lifelong education and training systems. Such systems need to be versatile enough to meet a diverse, growing and dynamic demand, in consonance with the economic, social and political development objectives of societies of the region.