

# **Training and development as a component of the strategic management of human capital in the telecommunication sector in Cuba**

by

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Telecommunications being a dynamic sector characterized by evolving technology, constant attention must be given to enhancing training and continuous professional development of employees and managers, which thus becomes a key strategic component of overall human resources management.

The purpose of this contribution is to explain the training and development system in the telecommunication sector in Cuba, its components and its functioning, and how it is built into integrated management of human resources.

## **The Ministry of Informatics and Communications (MIC) Training and Development System: Brief overview**

Given the fast pace of constant change in today's globalized world, the level of complexity involved and the need to be in tune with the challenges faced, organizations have to take a systemic and at the same time complex approach to this reality. Yet, by virtue of the very nature of these changes, even when the need for a systemic approach is recognized, we do not always manage to align business practice and life with the theory.

In spite of this, much reference is made to systemic practices, which are more than the simple sum of individual efforts, but rather planned and implemented with synergies in mind. In this context, it is useful to identify and describe the system, going beyond mere intentions and common terminology.

The business system in the Ministry of Informatics and Communications (MIC) is geared to the major technological and professional challenges facing the Ministry's experts and managers. In order to be able to meet these challenges successfully, individuals and organizations need to be committed to constant improvement.

## **MIC Training and Development System**

The MIC Training and Development System comprises an interlinked *set of institutions, procedures, regulations, actions and resources* which fit *targeted strategies*, in order to achieve top-quality preparation of the *MIC workforce* in terms of professional competencies and in *disciplines which are important for ICT development*, so as to ensure continuous readiness, keeping the workforce up to date with the latest developments in the sector.

## **Fundamental components of the MIC T&D system**

- 1) Set of institutions, including:
  - Ministry of Labour and Social Security (MTSS), which regulates human resources training and development activity nationwide.

- Ministry of Higher Education (MES)
  - Ministry of Education (MINED)
  - Higher education centres (CES)
  - Technical and professional learning centres
  - Specialized Schools within the Organizations of the State Central Administration (OACE)
  - MIC entities (internal schools, FORDES, DELFOS, business system)
  - MIC ministerial departments (Department for Human Capital, Department for Management, Department for Science and Technology)
  - International training providers
- 2) Procedures, regulations, including:
    - MTSS Resolutions 9/2007, 29/2006
    - Other MES and MINED resolutions
  - 3) Actions (through the everyday operations of the component parts)
  - 4) Resources, including:
    - Physical infrastructure (premises, technological resources, equipment, etc.)
    - Budget
  - 5) Targeted strategies
    - MIC strategies
    - Training and development strategies in the MIC system
    - Strategies of entities within the system
  - 6) MIC workforce (all employees benefitting from the system)
    - Technical experts, workers
    - Executives, managers and back-up
  - 7) Important areas for ICT development
    - Students in relevant disciplines and courses of interest for the MIC system
    - Employees of other bodies involved in ICT development which benefit from the MIC T&D system.

The following **functions of the components** of the system may be identified:

- 1) Regulate the T&D process within entities.
- 2) Establish T&D strategies.
- 3) Carry out T&D needs analyses on the basis of competency profiles and annual performance appraisals.
- 4) Draw up and implement individual and organizational T&D plans.
- 5) Design and organize training actions.
- 6) Define for MES and MINED entities the professional quality (workforce competencies) required by the MIC system.
- 7) Carry out technical and technological intelligence functions (information management, knowledge management, etc.)
- 8) Advise on and monitor performance of the proposed T&D plans.

- 9) Provide training actions.
- 10) Supervise the T&D and in-service training activity.

In view of its importance, it is useful to highlight some of the system's components and basic functions, which set it apart, including in-service training and organizational T&D plans.

### **In-service training**

In Cuba, all secondary and higher education graduates are guaranteed a work placement on completion of their studies. They are obliged to undergo an in-service training period during the first two years after graduation.

Resolution 9/2007 of the Ministry of Labour and Social Security (MTSS) lays down the regulations governing the treatment of new graduates during their in-service training period.

**In-service training:** This is a form of training which helps new graduates to adapt to work and provides them with additional preparation in order to consolidate and develop the knowledge acquired and develop the practical skills which will equip them to discharge a specific duty in the work unit to which they have been assigned.

The overall objective of in-service training for new graduates is to complement their technical and work training and give them every possible opportunity to improve their professional performance and integrate effectively in the work team.

The aforementioned resolution stipulates that, in the administration of work entities, the following must be done in respect of new graduates:

- a) Ensure they receive comprehensive training as part of the workforce, identifying with the business mission, strategic plans, work objectives for their work unit and their role in their team, as well as training in ethical and moral values.
- b) Ensure they participate in postgraduate activities such as courses, seminars, lectures and other activities relevant to the profile of the post for which they are being prepared.
- c) Supplement their training with practical activities relevant to their professional profile in order to enable them to fulfil the job for which they are being prepared.
- d) Foster appropriate motivation for work, through a systematic policy of preparation, mentoring and stimulation.
- e) Assess the qualities, potential and prospects of each new graduate with a view to his or her final assignment to a specific post.

During the in-service training period, the apprentice must have a tutor, who shall be a person with work experience responsible for:

- Drawing up the individual in-service training plan.
- Leading and overseeing progress of the in-service training.
- Conducting partial and final evaluations of fulfillment of the plan.
- Establish with the new graduates the necessary interpersonal relations to understand their concerns and opinions.
- Motivate the new graduates and involve them in analysing and solving problems and difficulties encountered by the work team.

The individual in-service training plan is drawn up taking into account the new graduate's training and the tasks and functions to be discharged in the job for which he or she is being prepared.

The plan comprises the following phases:

- 1) Initial presentation and orientation: Includes the induction and familiarization process, beginning with welcoming of new graduates by the Management Board, general explanation on how the entity they are joining is organized, its mission, structure, functions, basic characteristics of the production or service provision process, work, management and motivation systems, internal disciplinary regulations, explanation of their duties and rights as graduates undergoing in-service training, introduction to the work team and designated tutor, individual in-service training plan and other appropriate aspects of interest.
- 2) General preparation: Includes general and specific work health and safety instructions, more detailed insight into the characteristics of production or services provision and knowledge of functional areas. Periods of rotation in different areas or different jobs in a given work domain are to be considered, in order to afford a grasp of the overall functions and their interrelationship with the primary process. Similarly, consideration may be given to allowing the new graduate to participate in training activities in order to ensure that the objectives of this phase are met.
- 3) Specific preparation: This is the core phase of the plan, and the longest in duration, aimed at achieving total mastery of all the functions and tasks of the post for which the graduate is being prepared, and covering detailed knowledge of the production or service provision process carried out in the domain, with periods of rotation in each of the departments or activities it comprises. This stage may include knowledge of other occupations or posts which need to be understood for the training to be comprehensive, even if they belong to different occupational categories. It also includes the study of procedures, instructions, regulatory documents and operating manuals, and so forth.
- 4) Final evaluation: This is the analysis phase to decide whether the new graduate is fit for final assignment to the job for which he or she has been prepared.

During the course of the plan, quarterly appraisals are carried out on the progress of the in-service training and the new graduates' performance.

For new graduates placed in MIC enterprises, a diagnosis is carried out with a view to ascertaining the young people's potential in order to determine which of them possess aptitudes for research, as project leaders, as managers, etc. with a view to their future evolution and development.

In addition to the in-service training plans for new graduates, all employees have to have a training and development plan.

### **Training and development process**

This process is regulated nationwide by MTSS Resolution 29.

In order to implement the human resources training and development process, the management of each entity shall:

- Organize and carry out a training and development diagnosis or needs analysis for its employees in relation to the posts they occupy and the entity's objectives and planning.
- Discuss and agree on training plans with employees and the trade unions.
- Develop and fulfill the annual training plan in order to respond to the needs identified.
- Organize and coordinate the necessary training actions to meet employees' identified training needs.
- Provide the necessary human, material and financial resources for this purpose, i.e. basic study material, technical facilities, installations, instructors and any other resources required.

- Give employees that need it access to the different levels of the education system.

#### Training needs analysis:

Determining training needs is the prerequisite for drawing up the individual training and development plan for each employee, these then being integrated to draw up the training and development plan for the entity's human resources as a whole.

The training needs analysis can be carried out using different techniques and tools which serve to identify the gap between each employee's knowledge, skills and attitude and the requirements that have to be met for the assigned job.

According to the needs identified, the competencies that the employees need to display for their posts, and the organization's strategy, an individual training plan is drawn up, broken down into annual plans.

Using the annual plans for each employee, the annual plans for the organization or entity are drawn up.

#### Training plans:

Annex 1 shows the models which are used for training plans in the MIC system and Annex 2 sets out the definitions associated with the model.

#### Monitoring T&D actions and in-service training:

As part of the T&D process, execution of the process in the system's entities is monitored throughout the year, in a planned manner.

To this end, checklists are drawn up which are periodically updated according to monitoring needs. A checklist is shown in Annex 3.

The people in charge of monitoring are senior experts from FORDES and from the entities within the system, who receive appropriate prior instruction to train them for the monitoring function.

The checklist is sent in advance to the entities, since the purpose of the monitoring is preventive, and the objective is to evaluate how T&D is progressing in the MIC system.

In-service training is monitored in the same way and using the same concept and procedures.

#### Conclusions:

- The MIC Training and Development System is an integral part of the human resources management system, with the objective of overall development of human capital in the sector.
- Key aspects of the system are in-service training and training and development plans.
- Another distinctive feature of the system is the educational and preventive nature of monitoring.



## Annex 2

### Definitions relating to the training plan

With the aim of standardizing the elaboration of T&D plans, preparing information for systematic monitoring that has to be carried out, and taking as a reference MTSS Resolution 29, the following definitions are proposed in respect of each action planned and carried out over the period (year):

#### 1 Training delivery method

This refers to the method by which the training is delivered in terms of participants' location in relation to the training action. It comprises:

- **Presence on site:** The participant is present during all or the majority (> 70%) of the training hours in the physical location where the training action is carried out.
- **Semi-presence on site:** The participant is not present for the majority (> 70%) of the scheduled hours of training in the physical location where the training action is being carried out. This method is regularly used when the action is limited to evaluations and group orientation sessions and monitoring with participants.
- **No presence on site (distance learning):** The participant is not present at any time in the physical location where the training action is taking place.
- **Self-learning:** This refers to individual study with or without guidance from an instructor or teacher, following any previously established programme of study, but without formally registering on a course or other event.

#### 2 Types of training

This refers to the fundamental type of training action involved. It includes:

- **Basic training:** Enables the employee, in a job or in a new assignment, to acquire the necessary minimum knowledge without which he or she could not perform the task.
- **Enhancement/promotion:** Enables the employee to expand and deepen his or her theoretical and practical knowledge of a given occupation, for instance in respect of the installation of new technologies and services. It may also raise the employee to a higher level of mastery in the specialist field, thereby enabling the employee to be promoted to a higher category or post.
- **On-the-job training:** Serves to consolidate knowledge and practical skills in a discipline or specified specialty, from the workstation, with emphasis on practical exercises.
- **In-service training:** Refers to new secondary or higher education graduates **completing** their in-service training phase during the period. New graduates who are not completing their in-service training within the period (year) will be considered in the "Course" category and within the "Trainee" occupational category.
- **Postgraduate:** Actions planned to provide continuous training of people coming out of higher education culminating in this title.
- **Postgraduate specialization:** Qualification certifying mastery, but with emphasis on in-depth theoretical and practical knowledge of the job, whereby the employee follows a customized study programme, assimilates the content and is awarded the title at the end.

- **Certification:** Qualification given to someone who is granted the title for possessing the necessary theoretical and practical knowledge of products, services and processes, and who is granted this title at the end.
- **Diploma:** Qualification which provides specific detailed understanding of the science being studied and which places emphasis on practical application of the knowledge gained whereby the employee follows a customized study programme, assimilates the content, successfully defends a final thesis and is granted the title at the end.
- **Masters:** Qualification that places emphasis on research and practical application thereof, whereby the employee follows a customized programme of study, assimilates the content, successfully defends a final thesis and is granted the title at the end.
- **Doctorate:** Qualification which places emphasis on research and creation of new knowledge in the science in question, whereby the employee successfully defends a final thesis and is granted the title as a result.
- **Complete MINED training cycle:** When the employee completes one of the final grades of secondary level, higher level and professional technical education. Each final grade will be reflected separately (9th., 12th., TM), all within the MINED framework. Employees who do not complete their studies at this level within the period (year) will be reflected in the "Course" category.
- **Complete MES training cycle:** When the employee completes the higher level at any CES or university in the country. Employees who do not complete their studies at this level during the period (year) will be reflected within the "Course" category.
- **Other (seminars, lectures, forums, workshops, events, etc.):** As well as the listed types, this includes all T&D actions which are not covered in the previous categories.
- **Course:** Action which, on the basis of a defined short (<100 hours) programme of study, introduces the employee to new knowledge or partially deepens knowledge already acquired. In this category will also be placed new graduates who are not completing their in-service training during the period (year) and in respect of which non of the other type categories apply.

Entities which have other defined types of training will have to adjust them to the above list.

The Course, Postgraduate Training, Diploma, Masters, Specialist and Doctorate qualifications are regulated by the Ministry of Higher Education (Resolution 132/2004 – Regulation of postgraduate education in the Republic of Cuba).

### 3 Participants by occupational category

The occupational categories approved by MTSS will be used, with the addition of a specified category for in-service training, as follows:

- (D) Executives
- (T) Technical staff
- (O) Operational staff
- (AD) Administrative staff
- (S) Service staff
- (A) Trainee: Applies to new graduates during in-service training phase.
- (CD) Management: For each action including managers, the plan will specify how many participate.

#### 4 Training providers

These will be classified as follows:

- **Specialist school:** Schools classified in this category coming under the respective OACEs.
- **Schools and training centres in the MIC system:** These are institutions which, whether coming under the respective entities or with their own legal personality, are recognized by MES to provide training actions, such as the ETECSA training centres, Cubatel, the Higher School of Posts, etc.
- **Internal:** A training action is considered internal when it is provided by staff from the entity itself, irrespective of the location in which the training is dispensed.
- **MES:** All higher education centres (CES), institutions, research centres, etc. under this ministry.
- **MINED:** All secondary, higher and technical schools coming under this ministry.
- **Non-MIC entities:** This category shall include all training offered by all entities from outside the MIC system and which are not covered in the previous definitions.
- **MIC entities:** All entities within the MIC system which are not classified as schools and training centres of the MIC system itself.
- **No provider:** Every training action for which no provider has been identified shall be specified in the plan.

#### 5 Languages and computing

The level shall be specified in the case of language training.

Shall be considered as computer courses not only specific IT training, but also training which addresses knowledge of IT applications in specific areas, such as business, economics, commercial, logistics, etc.

### Annex 3

#### Checklist for monitoring the training and development activity in MIC entities

##### I. General data

- 1.1 Entity: \_\_\_\_\_
- 1.2 Province: \_\_\_\_\_
- 1.3 Date: \_\_\_\_\_
- 1.4 Participants by entity (number and function):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- 1.5 Staffing table:
- |                                |                                    |
|--------------------------------|------------------------------------|
| 1.5.1 Total workforce: _____   | 1.5.4: Administrative staff: _____ |
| 1.5.2 Operational staff: _____ | 1.5.5 Technical staff: _____       |
| 1.5.3 Service staff: _____     | 1.5.6 Executives: _____            |
- 1.6 Entity's roster of instructors: Chapter VIII, Resolution 29/06 MTSS.
- 1.6.1 Number of instructors on the entity's roster: \_\_\_\_\_ NOTE: Annex to this guide the list with full names.
- Of which:
- 1.6.1.1 How many internal to the entity: \_\_\_\_\_
- 1.6.1.2 How many from other entities: \_\_\_\_\_
- 1.6.1.3 How many associated with ETP centres \_\_\_\_\_
- 1.6.1.4 How many associated with MES centres \_\_\_\_\_
- 1.6.2 Brief summary of the characteristics and experience of instructors on the roster:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- 1.6.3 Describe the actions which are/may be conducted to foster relations with universities and contribute to fulfilling MIC's policy in this area (category specialists in universities, placements in businesses, research and development projects, contribution to course committees).  
\_\_\_\_\_  
\_\_\_\_\_

## II Aspects to be monitored

N.	Aspects to be monitored	Verified (Yes/No)	Remarks	Indicators	Reference
<b>1</b>	<b>Training and development strategies, objectives and policies</b>				<b>Chap. II, Res. 29/06 MTSS</b>
1.1	Entity has a T&D system geared to the short- and medium-term strategies and objectives (1 to 3 years) of the business and the sector				Art. 4, Res. 29/06 MTSS
1.2	Objectives, scope and results to be achieved in the period (year) for T&D in the entity are defined, contributing to fulfilling the entity's and MIC's strategies				Art. 5, Res. 29/06 MTSS
1.3	T&D shown to be a process:				Art. 6, Res. 29/06 MTSS
1.3.1	which is continuous and flexible				
1.3.2	which is provided in the appropriate environment				
1.3.3	– where supervisors are responsible				
1.3.4	– which anticipates change				
1.3.5	– which is derived from the needs analysis/diagnosis				
<b>2</b>	<b>Management of the T&amp;D process</b>				<b>Chap. III, Res. 29/06 MTSS</b>
2.1	Supervisors and trade union are aware of the T&D needs and actions for the workforce				Art. 7, 8, 15, Res. 29/06 MTSS
2.2	The necessary and approved actions are organized and coordinated				
2.3	T&D specialists and managers are properly trained				Art. 9, Res. 29/06 MTSS

N.	Aspects to be monitored	Verified (Yes/No)	Remarks	Indicators	Reference
3	<b>HR monitoring</b>				<b>Chap. IV, Res. 29/06 MTSS</b>
3.1	Up-to-date and quality information				Art. 10, Res. 29/06 MTSS
4	<b>Training needs analysis/diagnosis</b>				<b>Chap. V, Res. 29/06 MTSS</b>
4.1	Various methods used for the diagnosis				Art. 13, Res. 29/06 MTSS
4.2	Diagnosis and T&D plan consistent				Art. 14, Res. 29/06 MTSS
4.3	Summary of diagnosis				
5	<b>T&amp;D plan</b>				<b>Chap. VI, Res. 29/06 MTSS</b>
5.1	Information collected				Art. 18, 19, Res. 29/06 MTSS
5.2	Studies				Art. 20, 22, Res. 29/06 MTSS
6	<b>Monitoring of implementation of the T&amp;D plan</b>				<b>Chap. VII, Res. 29/06 MTSS</b>
6.1	Systematic evaluation				Art. 24, 25, Res. 29/06 MTSS
6.2	Impact				Art. 26, 27, 28, Res. 29/06 MTSS

N.	Aspects to be monitored	Verified (Yes/No)	Remarks	Indicators	Reference
7	<b>T&amp;D for the introduction of new qualifications (in the case of employees failing to meet or meeting inadequately the new requirements of the post)</b>				<b>Res. 28/06 and Res. 8/05 MTSS</b>
7.1	Individual T&D strategy				Art. 9, Res. 28/06 MTSS, Art. 32, Res. 8/05 MTSS
7.2	Individual T&D plan				
7.3	Implementation				
8	<b>Main approaches taken for interaction with employees</b>				
9	<b>Recommendations</b>				

\_\_\_\_\_  
Name, first name and signature of controllers

\_\_\_\_\_  
Name, first name and signature of controllers