MINISTÈRE
DE L'EDUCATION NATIONALE
ET NOUVELLE CITOYENNETE

Project documentation:

Strengthening digital skills in the training of accounting assistants in the Democratic Republic of Congo

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SUMMARY

Introduction

This document is a compilation of information detailing the project "Strengthening digital skills in the training of accounting assistants in the Democratic Republic of Congo (DRC)". It brings together the data, observations, and results obtained over the years of project implementation, in order to provide a clear and structured overview of this innovative initiative.

Its main objective is to share a global vision of the project, while highlighting the key stages of its development, the challenges encountered, the solutions provided, and the results obtained. It is also a tool for reflection to improve and expand digital educational practices in other similar contexts.

The content of the document includes:

- The motivations for the project, i.e. the need to modernize accounting education to meet the requirements of the job market and integrate digital tools;
- The structuring of the project, i.e. the role of the institutions involved, in particular the Ministry of National Education, the General Inspectorate, the Directorate of School Programs, and the Commercial Branches Unit;
- The stages of its implementation, i.e. teacher training and the introduction of the Banana Accounting software into classroom practice;
- The tools and methodologies used, i.e. development of OHADA-compliant charts of accounts, development of training modules, and extension of the software's functionalities;
- The results obtained. i.e. capacity building of more than 11,000 teachers on the use of accounting software, training of more than 11,000 teachers and successful introduction of the use of the Banana Accounting software in classroom practice of which 70,000 students are beneficiaries;
- The challenges encountered, i.e. financial constraints, lack of technical infrastructure (computers and access to electricity) and adaptation of educational content;
- Perspectives, i.e. suggestions for sustaining and extending the project's achievements across the country and beyond.

Authors' notes

In June 2024, the first certification exams were held for students trained as accounting technicians, using accounting software. This achievement is the result of several years of work around the project "Strengthening digital skills in the training of accounting assistants in the Democratic Republic of Congo".

Through a collective effort involving many people and institutions, more than 11,000 teachers have been requalified, and more than 70,000 students have been trained under this project.

Many people, including those involved in the project, have often expressed a desire to know more about this initiative, which, although implemented with very limited financial resources, has been remarkably successful. Also, as Head of the Commercial Branches Unit, Deputy Inspector General in charge of finance and Deputy Inspector General in charge of pedagogical evaluations who have been very involved in this project since the beginning, we thought it useful to gather various information about it. With the help of several collaborators, we were finally able to prepare this document which compiles a lot of data on the project.

Although unfinished, this document already contains valuable information. That's why we make it available in this form. We invite all interested parties to send us their comments, and to point out any errors or inaccuracies. This feedback will certainly allow us to improve and finalize a more successful and satisfactory version.

I. The strategic and institutional context

A. The DRC's efforts and commitments

The Democratic Republic of Congo (DRC), which has more than 100 million inhabitants, is one of the seventeen most populous countries in the world. It is the second African country after Nigeria in terms of population size and second only to Algeria in area (2,345,409 km²). Its population density is one of the lowest on the continent, with an average of 42 inhabitants/km² (RESEN-RDC 2022).

More than 68% of its population is young, and its average age is 25 years old. From the point of view of fertility, the Congolese population is growing at a high rate with an average of 6.2 children per woman (MICS6 survey 2017-2018).

The DRC is characterized by great cultural and linguistic diversity. Alongside several local languages, four national languages are spoken: Kikongo in the west, Lingala in Kinshasa and in the northwest, Kiswahili in the east and southeast, and Tshiluba in the center-south.

The DRC faces a high level of poverty despite its abundant natural resources. In 2024, the poverty index is 14.5. ; 73.5% of Congolese live on less than $2.15 per day per personhttps://www.banquemondiale.org/fr/country/drc/overview. These poverty indicators reflect a complex situation affecting several aspects of daily life, including health, education and food security.

In terms of education, the DRC faces multiple challenges, ranging from unequal access to education to insufficient quality of education. Rural areas and the most vulnerable populations, especially girls, for example, remain largely underserved. The 2020-2021 statistical yearbook indicates a disparity between girls (47.30%) and boys (52.70%) overall, but also according to the environment (rural and urban areas).

The country is also facing a growing demand for modern skills amid globalization and rapid digital transformation.

All this justifies the option of the fifth objective of the new five-year term of the President of the Democratic Republic of Congo, presented at his inauguration, which aims to guarantee better access to basic services, in particular through the extension of free education programs.

The 2024-2029 Five-Year Plan makes the promotion of gender, equity and inclusion an important theme of its action. It emphasizes the creation of a safe and inclusive educational environment, welcoming all students regardless of gender, social background, geographical location or physical and intellectual abilities. Particular attention is paid to the safety and protection of girls in schools, as well as the inclusion of students with special educational needs.

National efforts to reduce poverty include initiatives in the fields of education, health and other social sectors, supported by partnerships with international organizations such as the World Bank. However, the situation remains difficult due to persistent conflicts in the eastern part of the national territory.

With regard to the financing of the education sector, expenditure on the education sector (MEPSP28 and MESU) had reached nearly 18% (17.8%) of the State budget in 2014. This represented a doubling of the share allocated to education in the state budget in the space of 4 years. This share was 9.0% in 2010 and has been steadily increasing over the following four years. In 2015, the finance law maintained the share of education at more than 17% (17.1%), but the budget allocated to education in 2023 remained unchanged (17.1%).

The DRC still needs support in its efforts to rebuild its national economy, consolidate peace and strengthen its human capital. Beyond its impact on increasing individuals' incomes, the formation of human capital guarantees the improvement of the living environment of populations, but also contributes to the strengthening of civic values and the control of demography.

At the international level, the Sustainable Development Goals (SDGs), including SDG4 on quality education, are putting increased pressure on the government to ensure equitable access to inclusive and quality education. To achieve Goal 4, education financing must become a national investment priority. In addition, measures such as free and compulsory education, increasing the number of teachers, improving basic school infrastructure, and embracing digital transformation are essential.

The DRC, as a member of the international community, is committed to achieving these goals, which require a strategic overhaul of its education system.

B. Organization of the education system in the DRC and political aims

1 - Organization of the education system

According to the Framework Law on National Education, DRC No. 14/004 of 11 February 2014, the Congolese education system is organized into two structures: formal and non-formal education.

These two structures are under the supervision of several ministries: National Education and New Citizenship, Vocational Training, Higher and University Education, Social Affairs and Solidarity. Other ministries also organize training according to their internal needs and their specificities.

The Ministry of National Education and New Citizenship is structured into administrative bodies for nursery, primary, secondary and vocational education, determined as follows by Article 127 of the Framework Law:

At the central level

- The Ministry of Government is responsible for education. The Ministry of National Education and New Citizenship is headed by a Minister of State, assisted by a Deputy Minister. The central administration is headed by a Secretary General, supported by the Directors-Heads of Service. The latter are assisted by Heads of Division and Heads of Bureau.
- The Ministry of National Education and New Citizenship has a technical service in charge of inspection. This service is headed by an Inspector General (IG), assisted by Deputy Inspectors General (IGA), Principal Inspectors (IP), and Deputy Principal Inspectors (IPA).

At the provincial level

- The provincial ministry is competent. The Ministry of National Education and New Citizenship is composed of educational provinces headed by Provincial Directors (Proveds), as well as other bodies such as the Provincial Commission or the Provincial Committee which deals with pedagogical, administrative and financial, patrimonial and province-specific problems.

At the sub-provincial level

- Decentralized territorial entities exist. The Ministry of National Education and New Citizenship is composed of educational sub-provinces, headed by the Heads of Sub-Divisions (Sub-Proveds).

At the local level

- The School Management Council of the school;
- The management of the school;
- The Parents' School Committee;

- The Students' Committee.

Since the State has signed a management agreement with the religious denominations, the latter have their own administrative organizations at all levels. But the operation of their schools remains subject to state control.

According to the principle of partnership management, two types of schools are organised: public schools (non-approved and subsidised), supported by the public treasury, and private schools.

Classical education consists of four levels: pre-school, basic education, humanities, higher education and university.

- The preschool level includes the nursery cycle, the pre-primary class and the community space for awakening.
- Basic education is organized in two cycles, the cycle of the first 6 years of basic education and the final cycle. The first 6 years of basic education are organized in three levels of two classes each. The final cycle of basic education consists of two years (the 7th and 8th grades).
- The humanities are organized into four-year general humanities and three- and four-year technical humanities.
- Higher and university education (ESU) consists of three cycles, including the three-year bachelor's cycle, the two-year master's degree and the 3-year doctorate.

Special education is organized for vulnerable groups and socio-professional categories with special needs. It is provided either in specialized schools or in schools providing inclusive education.

Non-formal education aims at the recovery and training of out-of-school young people and adults with a view to their social integration. It is provided in special establishments and training centres. It relates to academic remedial, literacy, learning, continuing education and vocational training activities. It is organized as follows:

- Out-of-school or out-of-school children aged 9 to 14 who can return to traditional education: duration of the training, 3 years sanctioned by a certificate issued after passing the ENAFEP. Training is provided in the Academic Remedial Centres;
- Illiterate young people and adults who do not have basic knowledge of reading, writing, arithmetic and the environment; duration of the training from 1 to 3 years;
- Young people and adolescents recovered for quality vocational training according to the learning needs expressed; duration of training, 3 years;
- Adults with special needs for lifelong learning; duration of training varies depending on the case.

NB: For greater clarity, a general diagram of the organisation of education in the DRC is available in the appendix.

2 - Aims and visions of the education system

The purpose of national education is to ensure a harmonious and high-quality education for the Congolese man, to make him a responsible citizen with a high civic sensitivity, useful to himself and to society, capable of assimilating his culture and of being up to the requirements of a democratic State; This is in order to promote the development of the country.

Therefore, the school has set itself the duty of forming citizens endowed with personality, ethical values, creativity, curiosity, observation and national consciousness, seeking to achieve the ideals of individual and collective well-being.

This vision is based on the idea that education is the engine of economic and social development, and that every Congolese, regardless of their origin or geographical location, should have the opportunity to realize their potential, through inclusive, equitable and quality education.

NB. : The evolution of the number of students and teaching staff up to the secondary level, for the 2019-2020, 2020-2021 and 2023-2024 school years is available in the appendix in the form of summary tables.

C. Ministry of National Education and New Citizenship

The Ministry of National Education and New Citizenship is responsible for the design, development and implementation of the Government's education policy. As such, and in liaison with the various ministerial departments concerned, it has the initiative and responsibility for the following actions.

1 - The Ministry's responsibilities

The Ministry of National Education and New Citizenship is responsible for the design, development and implementation of the Government's education policy.

Its main responsibilities are as follows:

- Organization of nursery, primary, secondary and technical education;
- Creation and management of public educational institutions;
- Accreditation and supervision of private educational institutions;
- Definition, conduct and execution of the Government's general policy in the field of education;
- Design, issuance and dissemination of the school calendar in all educational institutions;
- Quality control of teaching;
- Organization and supervision of tests, publication of the results of the tests and examinations concerned, issuance of certificates and diplomas;
- Design, issuance and control of school titles and documents;
- Establishment of the equivalence of school titles and documents;
- Design, development, printing and dissemination of curricula;
- Design and approval of textbooks;
- Design, creation and distribution of teaching materials and teaching materials;
- Promotion of extracurricular activities (cultural, sports, leisure and games) within educational establishments;
- Management of active administrative and teaching staff, management of files of retirees from public educational institutions;
- Negotiation and management of the partnership;
- Study, dissemination and implementation of special teaching programmes;
- Design of standards and guidelines for the construction and construction of school infrastructure and monitoring of their implementation, in collaboration with the Ministry responsible for Public Works;
- Publication of school statistics.

2 - The General Secretariat

Attributions:

- Assist the Minister in the general orientation and conduct of the affairs of the Ministry;
- To plan, coordinate and supervise all the activities of the General Secretariat for Primary, Secondary and New Citizenship Education carried out by the Directorates under his/her authority.

Activities:

- Assists the Minister in the exercise of his constitutional prerogatives, executes the decisions of the authority and decides on all matters within his competence;
- Acts as a liaison between the Minister's Office, the National Education Administration and New Citizenship and development partners;
- Develops a vision, a strategy and sets annual objectives for the National Education and New Citizenship Administration, taking into account political and budgetary orientations;
- Gives guidance to the Directors-Heads of Service on the definition of the general policy of the National Education and New Citizenship Administration and develops a strategic plan;
- Ensures the management and organization of the General Secretariat through the effective and efficient management of time, costs, activities and resources;
- Coordinates the policies and strategies for the modernization of the National Education Administration and New Citizenship and assesses the efficiency and managerial capacities of senior executives;
- Coordinates the technical services (operators) of the Ministry of National Education and New Citizenship;
- Ensures the promotion and quality of social dialogue;
- Organizes an effective system of internal control;
- Chairs the meetings of the Management Committee;
- Represents the General Secretariat of National Education and New Citizenship to third parties.

3 - L'Inspection Générale

a) History

The Corps of Inspectors in its current form has been in existence since 1991. It is governed by Presidential Ordinance No. 91-231 of 15 August 1991 on the Administrative Regulations relating to the Corps of Inspectors of Primary, Secondary and Vocational Education. It should be noted here that throughout the colonial period the work of the inspectors was carried out by the Belgians. After independence on 30 June 1960, the work continued to be carried out by the Belgians and the transfer of competences took place only gradually.

This body was created in 1978 but Ordinance No. 91-231 of 15 August 1991 on the Administrative Regulations relating to the Corps of Inspectors of Primary, Secondary and Vocational Education is the legal text that constitutes and governs the General Inspectorate of the DRC.

b) Missions

The Corps of Inspectors is responsible for the following missions:

- To visit the schools, to check their proper operation;
- Observe, assess, advise, train and monitor the level of performance of teachers;
- Organize juries and pedagogical evaluation of Primary, Secondary and Vocational Education;
- To report, through the hierarchical channel and through inspection reports, on the results of his mission to the competent authorities of the Ministry of Primary, Secondary and Vocational Education.

(c) Conditions of access to the functions of inspector

Recruitment for the corps of inspectors is done on the basis of a special competition that must first be passed.

In addition, to be admitted to the special competition organized for the recruitment of primary, secondary and vocational inspectors, it is also necessary to meet a few criteria, namely:

- Be a career teacher, with at least the title of 1st class head teacher, 1st class pedagogical adviser or primary school director (for the recruitment of primary and nursery school inspectors).
- Be a career teacher, with at least the title of 1st class head teacher, 1st class prefect of studies, 1st class pedagogical adviser or 1st class director of discipline and director in primary education (for the recruitment of secondary and vocational education inspectors).
- Justify a synthetic assessment equal to or greater than 'very good' in the last three years.

The special examination consists of three parts: (i) an examination in school administration, pedagogy, psychology, financial management and school hygiene; (ii) a judgement test on the management of a school, on social relations with school staff and parents, on the conception of the values of civic duty and morality; (iii) a practical test on the teaching profession.

d) Organic structure

The General Inspectorate is organized at two levels, central and provincial.

At the central level, the General Inspectorate includes:
- A General Inspector (IGE);
- Deputy Inspectors General (IGA);
- Principal Inspectors (PIs);
- Deputy Senior Inspectors (IPAs).

At the provincial level, the General Inspectorate includes:
- a provincial chief inspector;
- Deputy chief inspectors;
- Chief Pool Inspectors;
- Roving inspectors.

The corps of inspectors of nursery, primary, secondary and vocational education includes several inspectors divided as follows: (i) Inspectors for the nursery level, (ii) Inspectors for the primary level, and (iii) Inspectors for the General Normal and Technical secondary level.

In their daily tasks, the inspectors are assisted by a large number of support officers.

(e) Monitoring, training and evaluation

The Corps of Inspectors is a control body. "Eye and ear of the Ministry", it is made available to the Minister of Primary, Secondary and Vocational Education to inform the government in great detail of all the realities of the country. It makes it possible to establish a scientific and methodological diagnosis of the functioning of the education system at all levels (nursery, primary, general normal secondary, and technical vocational education).

Training is at the heart of the inspectorate's action. It makes it possible to fill in the gaps revealed by the control, by carrying out remedial actions.

In addition, the Inspectorate sanctions at the end of the training. It takes place after teaching or learning (training), managing (i) the end-of-primary cycle examination or ENAFEP; (ii) the National Short Cycle Jury or JUNACYC; (iii) the Long Cycle State Examination or EXETAT.

4 - The Department of School Programs and Teaching Materials (DIPROMAD)

The DIPROMAD reports to the Directorate of the General Secretariat of National Education. Its responsibilities are as follows:

- Designs and prepares draft policies, strategies and standards related to curricula, textbooks and teaching materials;
- To ensure the experimentation of school curricula;
- Implement the national textbook policy;
- Produce and disseminate training materials.

DIPROMAD has several divisions. One of them is the Centre for Educational Research and Dissemination.

5 - The Commercial Branches Unit

The Commercial Branches Unit is one of the offices of the Centre for Research and Pedagogical Dissemination, a division of DIPROMAD.

The following are the responsibilities of the Ombudsman:

- Participate in the design of policies, strategies and standards related to the curricula, textbooks and teaching materials of the Technical Business Section;
- Design, develop and test the curricula of technical commercial education;
- Analyze and re-evaluate the draft textbooks of technical commercial education, with a view to obtaining accreditation;
- To provide initial training for teachers in the technical commercial section.

II. OHADA and the SYSCOHADA framework

A. OHADA

1 - Definition

The name OHADA is the acronym for the Organization for the Harmonization of Business Law in Africa.

2 - Mission and objectives of OHADA

It should be noted that OHADA was born through the Treaty on the Harmonization of Business Law in Africa, signed in the city of Port-Louis (Mauritius) on October 17, 1993. This treaty was subsequently revised in Quebec, Canada, on October 17, 2008.

OHADA's mission is to harmonize business law in Africa, to ensure that all OHADA member countries can have the same legislation and the same laws in economic matters (customs, taxes, company operations, taxes, etc.) in order to guarantee its member states legal and judicial security for investors and companies. OHADA thus contributes to propelling economic development, creating a vast integrated market in which African products can easily circulate and be consumed, and making Africa a pole of development.

3 - OHADA geographical area

To date, OHADA has 17 member countries:

- Benin;
- Burkina Faso;
- Cameroon;
- The Central African Republic;
- Côte d'Ivoire;
- Congo;
- The Comoros;
- Gabon;
- Guinea;
- Guinea-Bissau;
- Equatorial Guinea;
- Mali;
- Niger;
- The Democratic Republic of Congo;
- Senegal;
- Chad;
- Le Togo.

4 - OHADA institutions

To function well, OHADA is composed of 5 organs whose precedence is as follows:

- The Conference of Heads of State and Government;
- The Council of Ministers;
- The Permanent Secretariat;
- The Common Court of Justice and Arbitration;
- The Regional Higher School of the Judiciary.

5 - Method of membership of OHADA

Accession to the Treaty of Port-Louis remains open to any State, whether it is a member of the African Union or not.

To date, many African states also want the unification and standardization of legal texts throughout the African continent.

B. OHADA's contributions to the DRC

The Treaty on the Harmonization of Business Law in Africa was ratified by the Democratic Republic of Congo on June 27, 2012, and the instruments of accession to OHADA were deposited on July 13, 2012 with Senegal, the depositary country of the Treaty.

The OHADA Treaty entered into force in the Democratic Republic of Congo on 12 September 2012.

It is important to note that the OHADA system does not only apply to legal professionals and companies, but also to the vast consumer market, spread in its 17 member countries throughout Africa.

The DRC's membership of OHADA is a boon for its economy; it opens up great opportunities for foreign investors, local companies, the creation of both Small and Medium Enterprises as well as large companies and thus promotes the creation of many new jobs.

OHADA has provided the DRC with a modern business law, resulting in practice in the facilitation of the creation of single-member companies (SA and SARLU), and public limited companies (abolition of the presidential authorization and the minimum seven shareholders), by facilitating access to justice, by strengthening the protection of traders, by the extension of the regime of directors' liability, by compulsory control, by the sanctions of nullity in the event of failure to comply with the formalities of creation, and by many other advantages both for individuals and for States.

OHADA has offered the attractive, transparent and coherent legislative and administrative framework that Congolese and foreign entrepreneurs lacked.

Accession to the OHADA treaty has led to the obligation for Congolese companies to apply the OHADA Uniform Act on Accounting Law and to move from the Congolese General Accounting Plan of 1976 to the unified SYSCOHADA repository.

C. The SYSCOHADA

The revised SYSCOHADA is the revised OHADA accounting system that was adopted in 2017 by the 17 member countries of the Organization for the Harmonization of Business Law in Africa (OHADA). It is composed of a uniform act, relating to accounting law and financial information (AUDCIF), and an OHADA general accounting plan which includes the accounting system for the individual, consolidated and combined accounts. The revised SYSCOHADA aims to harmonize the accounting rules applicable in the OHADA area and to make them compatible with International Accounting Standards (IFRS).

1 - Revised SYSCOHADA and former SYSCOHADA

The main differences between the revised SYSCOHADA and the old SYSCOHADA are:

- The revised SYSCOHADA introduces new concepts such as deferred taxes, hedging transactions, long-term contracts, post-closing events, changes in accounting policy, etc.

- The revised SYSCOHADA modifies the structure of the OHADA General Chart of Accounts by going from 8 to 10 classes of accounts and by introducing subdivisions by nature, function and destination.
- The revised SYSCOHADA modifies the presentation of the financial statements by introducing a statement of comprehensive income, a statement of cash flows, a statement of changes in equity, and notes to the financial statements.
- The revised SYSCOHADA requires listed or publicly traded entities to produce financial statements in IFRS in addition to their individual financial statements in SYSCOHADA standards or according to the accounting framework specific to their activities.
- The revised SYSCOHADA simplifies the minimum cash flow system by allowing small economic entities to keep simplified accrual accounts and abolishes the simplified system that was an intermediate system.

2 – The objectives of SYSCOHADA

The objectives of the revised SYSCOHADA are to:

- Provide reliable, relevant, comparable and transparent financial information to internal and external users of financial statements;
- Facilitate the economic and financial integration of OHADA member countries by harmonizing their accounting rules;
- Promote the development of the provincial financial market by strengthening the confidence of investors and regulators;
- To move closer to International Accounting Standards (IFRS) while taking into account the specificities of the African context.

The revised SYSCOHADA entered into force on 1 January 2018 for the individual accounts of entities, and on 1 January 2019 for consolidated accounts, combined accounts and financial statements produced in accordance with IFRS.

The countries concerned by the revised SYSCOHADA are the 17 OHADA member countries, namely: Benin, Burkina Faso, Cameroon, Comoros, Congo, Côte d'Ivoire, Gabon, Guinea, Guinea-Bissau, Equatorial Guinea, Mali, Niger, Central African Republic, Democratic Republic of Congo, Senegal, Chad and Togo.

3 - Structure of the chart of accounts

The structure of the revised SYSCOHADA chart of accounts is as follows:

- Class 1: Sustainable resource accounts (equity and financial debts);
- Class 2: Fixed asset accounts (intangible, tangible and financial assets);
- Class 3: Inventory accounts;
- Class 4: Third-party accounts (current asset receivables and current liability debts);
- Class 5: Cash accounts (investment securities, cash receivables, bank accounts and cash registers)
- Class 6: Expense accounts for ordinary activities;
- Class 7: Revenue accounts;
- Class 8: Other income and expenses accounts;
- Class 9: Accounts for the accounting of commitments and cost management accounting.

Each class is subdivided into accounts, sub-accounts, and subdivisions by nature, function, and destination.

4 - Accounting Principles

The accounting principles of the revised SYSCOHADA are:

- The going concern principle, which implies that the entity is presumed to continue its business for the foreseeable future.
- The principle of continuity of methods implies that the entity applies the same accounting policies from one year to the next, unless there is a justified exceptional change.
- The prudential principle, which means that the entity does not recognise potential gains until they are realised and takes into account probable losses as soon as they are known.
- The principle of non-offsetting implies that the entity does not offset assets and liabilities or items of expenses and income, except in special cases provided for in the revised SYSCOHADA.
- The principle of intangibility of the opening balance sheet, which implies that the opening balance sheet of a financial year corresponds to the closing balance sheet of the previous financial year, after allocation of net income.
- The historical cost principle, which implies that the entity values assets and liabilities at their acquisition or production cost on the date of entry into the assets, except in special cases provided for in the revised SYSCOHADA.
- The materiality principle implies that an entity may deviate from accounting rules if the impact on its financial statements is negligible and if this simplifies its accounting.
- The principle of regularity and sincerity implies that the entity complies with the applicable accounting rules and procedures and that it faithfully reflects the economic and financial reality of its activity.

D. The reform of the technical and commercial humanities

The main consequence of the DRC's accession to OHADA in terms of accounting training has been to reform the educational programs to adapt them to SYSCOHADA.

From the 2014-2015 school year, after the DRC joined OHADA, the reform was introduced in the commercial technical education sector. This reform has led to the development of curricula for the sector's sectors according to the competency-based approach.

Thus, two courses have been organized, namely:
- A Sales and Management course;
- A Secretarial and Administrative course.

1 - The Sales and Management stream

To ensure the adequacy between training and employment, learners in the Commercial and Management sector, who are called upon to work as Accounting Assistant Technicians, must be introduced to:
- Fill in and handle accounting documents serving as supporting documents, by hand or with the help of the computer tool;
- Prepare documents related to the administration and in relation with third parties;
- Produce summary tables, manually or with the help of computer tools.

To do this, the school must make available to learners the printouts of the accounting documents or the computer tool (in which management software will be installed) in order to contextualize teaching and learning.

Profile of the A2 Technician in Sales and Management

The technician trained in the Sales and Management option is called "Assistant Accountant". He is an A2 level accounting professional who, within an economic entity and under the responsibility of an Accountant or a Chartered Accountant, is able to:
- Keeping the accounts;
- Participate in the exercise of certain administrative activities;
- Participate in the exercise of certain commercial activities;

- Participate in the exercise of certain financial activities;
- Participate in tax management.

NB.: This Accounting Assistant profile allows access to the civil service of the central, provincial and local government, in executive jobs in the financial, tax and customs sectors.

2 - The Secretarial and Administrative course

To ensure the adequacy between training and employment, learners in the Secretarial and Administrative sector, who are called upon to work as a Secretarial Technician, must be introduced to:

- Organize the office and keep records properly;
- Keeping all kinds of correspondence correct.

To do this, the school will provide learners with the tools necessary for the organization of the office and the maintenance of correspondences in order to contextualize teaching-learning.

Profile of the A2 Technician in Secretarial and Administrative Management

The technician trained in the Secretarial and Administrative option is called Administrative Secretary. He is a professional capable of:

- Organize the office, information and files;
- Ensure administrative correspondence.

As a professional man, the secretary is also able to create or manage an office automation company or a production unit. In addition, he or she may undertake higher or university studies, particularly in the economic, commercial, financial, administrative, and legal disciplines.

To do this, the school must have a well-equipped machine room.

III. The project: description and achievements

A. General framework

1 - Name

Strengthening digital skills in the training of accounting assistants in the Democratic Republic of Congo

Project to support the adequacy of training, employment and qualifications

Reference institution	**Ministry of National Education and New Citizenship** **Inspection Générale** Kinshasa, Democratic Republic of Congo
Partner	**Banana.ch SA** Lugano, Switzerland
Duration	2020-2025
Region	Democratic Republic of Congo
Summary	The project to *strengthen digital skills in the training of accounting assistants in the Democratic Republic of Congo* aims to introduce OHADA accounting standards and integrate Information and Communication Technologies, using accounting software and office tools (Word, Excel), in the teaching of schools organizing technical commercial courses. The project provides for the retraining of the teaching staff (13,000 teachers), the adaptation of curricula and teaching materials, the provision of modern accounting software and the creation of infrastructures equipped with instruments adapted to the teaching of computerized accounting.

2 - A national project

"The technical innovations that have taken place in recent years, particularly under the impetus of the rapid development of Information and Communication Technologies (ICTs), are making it possible to transform the economy and improve the living conditions of many people." United Nations Economic and Social Council, 2018 https://unctad.org/meetings/fr/SessionalDocuments/ecn162018d3_fr.pdf.

In the Democratic Republic of Congo, as in the rest of the globalized world, skills in the field of Information and Communication Technologies (ICT) are increasingly necessary in all jobs, especially in the field of administration and accounting management. Companies, both locally and internationally, still rely on IT systems for accounting management. Therefore, the Ministry of National Education and

New Citizenship of the Democratic Republic of Congo has considered it a priority to launch a national project aimed at strengthening digital skills in the training of accounting technicians.

3 - General objectives

With the process of digital strengthening of accounting and the learning of the handling of computer tools, the project contributes to the improvement of the quality of accounting teaching in schools of technical and commercial courses.

The project also aims to:

- Train accounting assistant technicians, capable of mastering the current computer tools essential to accounting management and meeting the requirements of the public sector, large and small companies;
- Facilitate the adequacy to the standardization imposed by the OHADA system;
- Promote access to information through digital technologies;
- Avoid increasing the *digital divide* and the consequent difficulties of companies in the quest for competitiveness on an international scale;
- Ensure that school activity can continue even in the event of an interruption of physical presence following the spread of epidemics (the forced closure of schools due to the coronavirus has resulted in a total suspension of training courses);
- To promote the emergence of self-entrepreneurship initiatives and provide useful tools in the management of startups and small businesses oriented towards local requests for services involving the use of ICTs;
- Create an environment conducive to quality education, align training with the needs of the world of work and open up to the international market;
- To update yourself in the follow-up of the computer revolution in progress.

4 - Actors involved

- The Ministry of National Education and New Citizenship, through the General Inspectorate and the Directorate of School Programs and Teaching Materials, plays a coordinating role in the project, is in charge of the constitution of programs at the national level, the punctual monitoring of activities and the partial financing of the entire project.
- Banana.ch SA, a technological partner company, is making its contribution, firstly through the free provision of software adapted to local technologies, and secondly through its meticulous work of adapting the software to the constraints imposed by the OHADA accounting system. Banana.ch SA also plays a facilitating role in the search for funding.
- The authorities of the 60 educational provinces in charge of the organization of education are responsible for the training of trainers and then the training of teachers in accounting and computer science. This work requires the institutions in charge to have a large amount of funding.
- The Permanent Accounting Council of Congo (CPCC) is the accounting standard-setting body in the Democratic Republic of Congo that is responsible for providing expertise on accounting aspects and OHADA themes.

5 - Project Management

The General Inspectorate and the Directorate of School Programs and Teaching Materials have been mandated by the Ministry to supervise the design and management of the project.

These two organizations have a well-articulated professional structure, capable of developing educational programmes and ensuring pedagogical supervision throughout the national territory. They also play a key role in teacher training and in improving the technical infrastructure of schools. They are therefore the main drivers of digitalization of schools.

The project, initially focused on teacher training, also highlighted the essential role of the Commercial School Programs Unit. The latter coordinated the creation of the chart of accounts and was responsible for the development of the training modules. Through her work, she has helped structure and strengthen business education by effectively integrating digital tools.

6 - Public-private partnership

This public-private partnership is in line with Goal 17 of the 2030 Agenda for Sustainable Development, which aims, among other things, to strengthen technological and innovation capacities in information and communication technology in least developed countries.

This form of coordination is increasingly being applied in development cooperation projects and programmes. For example, it is at the heart of the Digital Skills Enhancement strategy promoted by the United Nations *Commission on Science and Technology for Development*. As explained by this multilateral institution in a 2018 report[https://unctad.org/meetings/fr/SessionalDocuments/ecn162018d3_fr.pdf], it is a question of involving technology entrepreneurs more in contributing to the development of training instruments for the teaching of various digital skills.

B. The Banana Accounting software

1 - Benefits

Professional accounting software has similarities. They are all based on the principle of double-entry accounting. They prepare the various balance sheets, income statements and reports required. As for the accounting aspects, they offer more or less identical functionalities. Similar to learning how to drive a car, once a person learns how to use accounting software, they are able to easily switch to another.

However, the different accounting solutions can differ significantly depending on their technical characteristics, user-friendliness, etc. Many require servers, others run only in the cloud. Most are aimed at large businesses, have a wide variety of features, and can be very difficult to use. The vast majority are not suitable for use in an educational context.

At the beginning of the project, the Commercial Branches Unit of the Directorate of School Programs and Teaching Materials therefore carried out an analysis of various products. In 2018, it identified the company Banana.ch SA as a possible technological partner for the implementation of the strategy for the development and implementation of accounting software adapted to education. According to the analyses of Congolese education experts, SA Banana.ch software is the most appropriate to undertake the process of strengthening education, due to the following set of well-identified characteristics that have proven decisive in the success of the project.

The advantages of Banana Accounting software are as follows:

- Banana Accounting is an accounting software aimed at small businesses and can be easily installed on computers with limited resources, without the need for a server or specialized staff;
- The software works similarly to Microsoft Excel, it is easy to use and allows each student to complete the exercises independently and then transmit the result to the teacher;
- The software is available in French and also comes with comprehensive documentation;
- The software is international, designed to be adapted to specific uses and countries. This has made it possible to create tailor-made solutions for SYSCOHADA;
- The software is intended for people without accounting knowledge, it has been developed with a view to facilitating the learning of the double-entry method;
- To make it easier for students to use, simplified templates have been developed that do not have certain features that are not necessary in an educational setting;
- Banana.ch makes the software available to schools free of charge.

2 - Technical partner Banana.ch

The company Banana.ch, producer of Banana Accounting software, is a leader in the offer of professional accounting software for small businesses and education. It supplies its high-quality IT products in more than 180 countries. In 2002, Banana.ch SA was the first company in the world to offer a certification system for accounting data using progressive digital seals (blockchain). The ability to articulate and develop its services according to the requirements of accounting education has enabled the company to position itself as the leading training partner in Switzerland.

The company Banana.ch, producer of the Banana Accounting software, was already collaborating with training institutes, particularly with schools in Africa. She said she was ready to support the Ministry's efforts in a variety of ways, with a view to cooperation (ESG).

Key elements of this collaboration include:

- Signing of a public-private partnership contract for a period of several years;
- Support for the development of training adapted to the regulatory and educational context of the DRC;
- Free provision of software licenses for all schools in the DRC under the supervision of the General Inspectorate;
- Possibility for schools to use the software not only for educational but also administrative purposes, in order to modernize their management and financial accounting;
- The software made available is the same as the one sold to companies with a license worth $149 per seat. As an indication, considering the installation of about 10,000 computers in schools, the theoretical value of the contribution is about USD 1.5 million per year. This value is constantly increasing with the addition of new schools equipped with computers for teaching.
- Providing ongoing and free technical support for ministry staff;
- Coverage of development costs for adaptation to the SYSCHOADA system;
- Coverage of the costs of adapting to the specific needs of the DRC in terms of VAT management and reporting;
- Covering the costs of hiring a full-time developer based in Kinshasa, trained and assisted by the company itself, to provide assistance and carry out the necessary developments;
- Ability to use Banana.ch's digital infrastructure for templates, teaching extensions, and updates;
- Constant evaluation of the results obtained and the challenges encountered, with visits to schools, to make the solution more effective;
- Methodological support to the Ministry in the management of the project using the AGILE methodology;
- Contribution of the Swiss vision of technological evolution in terms of education and innovation, Switzerland being one of the most advanced nations in the world in these fields;
- Support to the Botangisi association to find and provide financial support for the project.

3 - AGILE methodology

To help the ministry overcome the challenges of managing the project, Banana.ch proposed adopting the AGILE methodology, which it had already been using for several years.

This project management methodology is widely used in innovative fields and by startups, often facing many unpredictable challenges and limited resources. It is based on a global vision defining the objectives to be achieved, while moving forward in progressive stages. Unlike traditional approaches, project phases are not fully defined at the outset. Limited goals, achievable in a short, well-defined period of time, are set as you go along. At the end of each phase, an evaluation is carried out to analyse the results obtained and identify any problems. On this basis, the next steps are planned, thus making it possible to move forward gradually and efficiently towards the end goal.

The adoption of this methodology quickly proved to be effective and well adapted. The ministry's civil servants, already used to managing constant changes, analyzing problems in a collaborative way and proposing solutions, have found AGILE a natural and effective tool.

The methodology was then adopted for the entire project, becoming the standard. Each task is now planned over a short time horizon, executed, and then followed by an evaluation of the results in order to make the necessary adjustments.

The AGILE approach has significantly contributed to the improvement of the quality of the results and the overall success of the project.

4 - Software localization

The Banana Accounting software has been designed to adapt to the various accounting rules of the countries where it is used. As part of this project, a specific localization was developed to meet the requirements of the SYSCOHADA accounting system.

The specialists of the Commercial Branches Unit, with the support of Technical Assistance, the Permanent Accounting Council in Congo (CPCC) and Banana.ch technicians, have developed accounting plans in accordance with OHADA standards. Then, the developers of Technical Assistance, in close collaboration with the experts of the Ministry of EPST, created extensions allowing the automated printing of the balance sheet, the income statement and the cash flow statement.

Thanks to these efforts, Banana Accounting now offers all the necessary features to be fully compliant with the OHADA accounting system, thus meeting local educational and professional needs.

C. Teacher training

1 - Challenges to be met

The Congolese education system is facing a structural lack of funding. Although the project initially planned to equip schools with computer rooms, the necessary financial resources were not available. Neither the Ministry nor the other entities involved had specific funds to support the digitization of accounting education.

However, the ministry had a strong professional structure, capable of supporting schools and teachers nationwide. Faced with these constraints, the General Inspectorate of National Education has chosen to transform this difficulty into an opportunity, by refocusing the project around three main axes:

- Prioritize teacher training;
- Overcoming financial constraints through collaboration with provinces and schools;
- Enhance existing infrastructure and support schools and teachers in the acquisition of IT tools.

2 - Teaching materials

The Commercial Branches Unit plays a central role in building the capacity of teachers and improving accounting training throughout the country. As a driving force behind modernization efforts, she coordinated initiatives to integrate digital tools and modern practices into teaching.

In this context, the Unit's managers have developed an intensive training module, designed to be conducted over a period of 10 to 13 days. This module was developed to meet the major challenge of the lack of trained technicians in many schools to manage and use computers. This reality has led the

Unit not to limit itself to purely accounting aspects, but to include essential elements related to information technology.

The content of the training module includes:

- Managing and using a Windows computer;
- Installing the Banana Accounting software on computers;
- An introduction to the OHADA accounting system;
- The practical use of the software for bookkeeping;
- The publication of accounting books and the printing of financial statements in accordance with OHADA standards.

This module aimed not only to teach accounting skills, but also to enable teachers and students to master the computer tools necessary for modern and efficient accounting management. Thanks to this effort, the Unit has made a significant contribution to bringing schools closer to the requirements of the professional world.

3 - Cascade training

Since it was not possible to train all teachers directly, a cascade strategy was developed. This first provided for the training of Inspectors at the central level, who were then led to deploy the training of nuclei of trainers in the various Educational Provinces, and the trainers initiated the teachers.

The General Inspectorate of National Education has allocated limited funds to this project.

The project was able to move forward thanks to the collaboration of all parties.

- The General Inspectorate of National Education, the Provincial Inspectorates and the Training Institutes have covered the costs of the staff necessary for the training of teachers in the normal course of their work.
- Trainers, inspectors and teachers have sometimes waived their remuneration or reimbursement of their expenses.
- For training, computer rooms already equipped in the territory were used.
    - The Inspectorate's staff used their own computer resources.
    - For the training of the Ministry's trainers, each user used his or her own computer.
    - For the training of trainers in the provinces, equipped schools have kindly made their computer rooms available for the duration of the courses.
    - For the training of teachers, the schools have made their rooms available free of charge.
    - Many teachers have made efforts to buy their own personal computers, which are then
    - used for professional purposes.

4 - Training of the Ministry's trainers

The members of the national core are 26 in number. They ensure the formation of provincial nuclei.

In 2018, the first training session for Central Level Inspectors was organized in the capital Kinshasa. This training session generated a lot of interest and a very high degree of satisfaction. For many participants who had never seen or used this accounting software, it was a novelty and an innovation.

The participants' reactions to the content of the training led to improvements in the materials used.

5 - The training of provincial trainers

The provincials train school teachers at the level of the educational provinces.

The formation of provincial nuclei has gone through two moments:

- October to December 2019, in 9 educational provinces: 50 participants were trained at each training site, i.e. a total of 450 Provincial Inspectors and a handful of Professors constituted as members of the provincial nuclei;
- April 2023: Inspectors from 60 Educational Provinces received additional training on the use of Banana accounting software. The training was organized in the form of the grouping of two or three educational provinces in 26 sites, namely the capitals of the Administrative Provinces. Each site welcomed 50 participants, and a total of 1300 Inspectors and Professors of the commercial and management sector saw their skills in digitized accounting strengthened.

6- Teacher training

Shortly after the capacity building, the provincial trainers were required to conduct trainings for teachers in commercial schools. Immediately after these training sessions in schools equipped with computer labs, enthusiastic teachers installed the Banana Accounting software and immediately used it in the classrooms with the students.

This was an important milestone that allowed experienced teachers to learn new skills, learn a new approach to teaching and try a new experience. The satisfaction of both students and parents was at its peak, even if the major criticism pointed to the lack or inadequacy of computers for students.

Thanks to the training provided by the provincial core of each educational province, teachers in 5,769 schools have been trained at the rate of two teachers per school, one in accounting, the other in computer science. A total of 11,538 teachers were therefore trained in classroom learning how to use the accounting software Banana Accounting, chosen as a tool for learning and evaluating practical integration situations.

The choice to train two teachers per school is based on the observation of a need for complementarity. In some schools, the accounting teachers who have to teach students how to use accounting software do not have a good command of computer tools, and computer teachers generally do not have enough knowledge of accounting. The Ministry, through the national training service SERNAFOR, which is part of the General Inspectorate of National Education, has therefore decided to train pairs of teachers so that they complement each other within the educational action units.

7 - Adaptation of the regulations

However, the Regulations still provided that training, exercises and examinations would be conducted manually.

The Ministry has therefore had to adapt the regulations by giving schools equipped with computers the prerogatives to provide training and to carry out exercises and examinations using software. Thus, the DRC was one of the first nations in the world to introduce the possibility of carrying out accounting tests and examinations with software throughout the national territory.

The adaptation of the regulations was carried out during the first wave of training.

8 - Support for schools

Throughout the project, the schools benefited from the constant support of the provincial experts and the Cell.

This regular contact was essential to identify the problems encountered in the field and to readapt the approach accordingly. The provincial experts provided local support, while the Unit ensured the central coordination and monitoring of the initiatives.

This collaboration made it possible to quickly make the necessary adjustments, whether in training, teaching tools or technical implementation. It also facilitated the appropriation of the new system by teachers and students, by responding directly to their needs and integrating their feedback.

This continuous support has increased the efficiency of the deployment while fully involving local stakeholders in the success of the project.

D. Pupil training

Overall data:

- According to the General Inspectorate in charge of the pedagogical evaluation of the long cycle, more than 76,000 students have been trained until the end of their course and have been subject to the certifying evaluation (State Exam or Baccalaureate).
- 5,769 schools in the business and management stream have used the Banana Accounting software as a practical classroom learning tool.

The accounting profession is going through a prosperous period, where technological innovations have never reshuffled the cards so much. Knowing how to use the latest software has become crucial to project oneself into the future of the profession. The Ministry of National Education thus prepares learners for digital work and integrates the use of accounting software for more concrete training adapted to future developments in accounting careers.

1 - The use of accounting software

This dynamic of using accounting software benefits both learners and their future recruiters. Studying accounting with digital accounting and management tools allows learners to be more sought after in the job market. "Accounting tools are crucial in the training of students, they provide them not only with technical know-how but also with a concrete vision of their future professional environment."

The world of work is recruiting people who already know how to use digital accounting tools. Training students in these tools therefore also makes it possible to meet the needs of business leaders, by establishing a direct link between the relevance of the training and the requirements of the market.

2 - The 8 activities of the training module

The training module has been designed to allow participants to gain an in-depth understanding of the fundamentals of accounting while using the Banana Accounting software as a learning tool. Through a structured and progressive approach, participants develop practical and essential skills, ranging from setting up charts of accounts to managing cash, fixed assets and financial statements. This program combines theory and practice, and aims to strengthen the mastery of accounting techniques while integrating the use of modern digital tools. It is structured around 8 activities.

Activity 1: Introductory approach

At the end of this activity, the participant is able to:

- Define accounting software;
- Explain the importance and characteristics of accounting software;
- Present the Banana Accounting software;
- Install the Banana Accounting software and activate the subscription.

Activity 2: Setting up the chart of accounts

At the end of this activity, the participant is able to:

- Apply the notions of setting up a chart of accounts using the Banana Accounting software;
- Configure the grouping and aggregation system;
- Use double-entry accounting using Banana Accounting software.

Activity 3: Accounting
At the end of this activity, the participant is able to:
- Explain the concepts of accounting using accounting software;
- Distinguish the types of entries in the accounting software;
- Use double-entry accounting with VAT.

Activity 4: Introduction to Billing
At the end of this activity, the participant is able to:
- Create the invoice with or without VAT using the software;
- Print the invoice according to a chosen template.

Activity 5: Cash Management
At the end of this activity, the participant is able to:
- Create cash management journals with or without VAT;
- Record cash flows;
- Import cash movements to the central journal.

Activity 6: Management of Depreciable Fixed Assets (Asset Register)
At the end of this activity, the participant is able to:
- Create the register of depreciable assets;
- Record depreciable items;
- Create depreciation lines;
- Import depreciation entries to the master journal.

Activity 7: Publishing General Ledgers, Trial Balances and Financial Statements
At the end of this activity, the participant is able to edit or print the General Ledger, Balance and Financial Statements.

Activity 8: Protecting Ledger and Accounting Data (Blocking Entries and Certification)
At the end of this activity, the participant is able to:
- Block accounting movements;
- Check the write block;
- Unblock entries.

3 - Exams and examination centres

Concerning the commercial sector, in particular the commercial and management sector, the Practical Integration Situation of the "core business" branch (accounting) takes place on a computer with the appropriate accounting software Banana Accounting.

The purpose of the professional practice examination is to verify that each candidate has acquired the skills required to perform a specific task.

Professional practice is organized in a cluster centre that receives applicants from a well-defined number of schools (no more than 10).

The grouping centre is a school chosen for reasons of accessibility, proximity to the other schools assigned to it and the provision of an equipped computer room where computers and printers are connected to a local network.

During the examination, the examiners (accounting and computer science teachers) under the supervision of the Chief Inspector of the centre receive the candidates in turn according to the capacity of the computer room.

- The candidate receives the item book and takes his exam according to the instructions (see the Example of a Practical Integration Situation);
- Once his work is finished, each candidate starts printing his production and the examiners collect the papers for correction;
- The correction is done when all the candidates assigned to a centre have passed their test.

NB. : An example of a Practical Integration Situation is available in the appendix.

E. Project validation

The General Inspectorate and the Unit have ensured the continuous monitoring of the accounting training provided to the students. This monitoring was achieved through regular direct contact with teachers and inspectors, through field visits and through in-depth investigations. This proactive approach has made it possible to gather concrete feedback on the challenges encountered, to understand the specific needs of schools and to adjust teaching methods to ensure effective teaching.

There was a strong interest and support for this new type of training, not only from teachers who have enriched their skills, but also from students, motivated by the integration of modern tools, and from parents who appreciated the relevance and concrete impact of this initiative on their children's learning. This unanimous recognition has helped to strengthen the commitment of all stakeholders and to make this training a model of pedagogical innovation.

1 - Scientific study 2022

In November 2022, a research entitled "Integration of the Banana Accounting Software in the Commercial and Management Section in the Schools of the Lubumbashi 1 Sub-Division" was published in a scientific journal of the city of Lubumbashi, capital of the Educational Province of Haut-Katanga 1.

His conclusions are more than encouraging:

- Out of 131 schools examined, only 39 had computer tools;
- Out of 39 teachers whose schools had computer tools, 36 had followed the training organized by the Ministry of EPST;
- 74.4% of teachers had already integrated the use of software into their teaching;
- Satisfaction was positive for 36 teachers;
- 37 teachers reported that students had reacted positively to the use of the software;
- The complaints were related to the lack of IT tools;
- The software was able to perform all the required functions and saved time and better verified the operations performed.

These results demonstrate the effectiveness of the training developed by the officials of the Ministry of EPST and the cascade approach used. Most schools with digitally adapted classrooms had trained their teachers, making them able to initiate the use of the OHADA system to install and teach students how to use the Banana Accounting software. This structured and in-depth research confirms the findings made during school visits by Technical Assistance.

The positive dynamics observed in schools, driven by teacher training and the provision of software, are marked by the following facts:

- Computers that were not in use or used little before the training were, after the training, updated with new operating systems and used daily;
- These computers are not only used for teaching accounting, but also for other tasks;

- The teachers were very happy to have had the opportunity to be trained on the OHADA system and to use accounting software;
- With the use of computers and accounting software, students broaden their learning perspectives;
- Teachers and school heads have been over-motivated to mobilize their own resources in order to strengthen and perpetuate the initiative by acquiring computers and using accounting software.

2 - Test Activity and Results

A test activity was organized as part of the evaluation of practical skills (SIP) of students in the commercial stream in the Democratic Republic of Congo. This test involved students using the Banana Accounting software as a learning tool, and aimed to prepare students for the certification exams by assessing their mastery of practical skills and identifying necessary adjustments.

Main objectives:
- Measure the mastery of computerized accounting skills with the Banana Accounting software.
- Validate practical integration situations.
- To guide future certification assessments for a better adaptation to the learners' level.

Organization:
- 10 educational provinces selected, including several in Kinshasa.
- 94 participating schools, i.e. 1,001 candidates.
- 7 days, including the test, correction and analysis on site.

Results:
- 53.1% of candidates passed the test.

Key challenges identified:
- Insufficient mastery of the basics of accounting in some schools.
- Delay in software training in some areas.
- Technical problems (lack of network connection, lack of electrical power, computers infected with viruses).

Recommendations:
- Strengthen training on the Banana Accounting software in schools that are lagging behind.
- Acquire adequate equipment (generators, antivirus, network connections).
- Plan learning according to the schedule of certification exams.

Prospects:
- The results of the test will be used to adjust the planned certification assessments and to develop an action plan to improve the integration of the Banana Accounting software in education for the 2024-2025 school year. A supervision mission is also planned to ensure the smooth running of the exams with this software.
- This program marks a significant step forward in modernizing accounting education and developing digital skills among students.

3 - Visiting schools

After an initial phase of face-to-face training, the restrictions related to the Covid19 pandemic led to remote exchanges between the Technical Assistance and the Ministry of EPST. It was not until June 2022 that a visit to Kinshasa could be organized, this time in collaboration with the managers and technicians of the Banana.ch company, involved in the project. This visit provided an opportunity to exchange directly with Ministry officials, to take stock of the progress of the project and to identify the next steps to be taken.

During this visit, the integration of the Banana Accounting software into the teaching process was evaluated in several schools. The exchanges, conducted between inspectors, teachers and students, aimed to gather practical feedback on the use of the software, to understand the difficulties encountered and to discuss possible improvements. The direct involvement of Banana.ch technicians fuelled the relevance of the discussions and provided immediate technical clarifications.

The feedback revealed a general satisfaction with the use of the software, which was perceived as an effective tool for learning accounting. However, several logistical challenges were highlighted, such as the lack of computers that forces students to work in small groups, or the frequent power cuts that disrupt the sessions. And a recurring concern of the students was the suitability of the software for the professional world. The representatives of Banana.ch explained that the software, although suitable for teaching, was based on the universal principles of double-entry accounting, and thus made adaptation to other software simple and intuitive.

These visits, marked by participation and collaboration, made it possible to strengthen the dialogue between stakeholders, to identify avenues for improvement, and to underline the common commitment to quality training, effectively integrating digital tools.

F. Observed side effects

1 - Schools' accounting management

In many schools, accounting management is still manual. Faced with this situation, the institutions have expressed the need for a modernized system, in particular to manage family contributions more efficiently using computers.

In some cases, the software has been used for the accounting management of the schools themselves or for the monthly recording of school fees paid by households. This has improved financial management, increased transparency towards families and allowed for better appropriation of new technologies by schools. This transition has also facilitated the strengthening of teachers' skills.

The provinces and the department supported this modernization in an effort to make the best use of financial resources. The Cells helped the schools to draw up appropriate charts of accounts and to adopt Banana Accounting, a simple and efficient solution.

The benefits of computerized accounting quickly convinced schools, encouraging them to modernize their practices. This evolution has also promoted the training of students in digital tools, enriching their skills and preparing them for the demands of the professional world.

2 - Support for businesses

Banana.ch pointed out that in Switzerland several accounting teachers also work as consultants to companies. These activities have significant benefits, both for education and for companies. Local small and medium-sized enterprises benefit from the assistance of qualified professionals in the management of their business and in the training of their staff. At the same time, teachers gain real-world experience of the real needs of companies, then integrate this practical knowledge into their lessons, making the teaching more relevant and better adapted to the requirements of the professional world.

A similar trend was observed among some local teachers. The Unit has therefore made teachers aware of the importance of these practical experiences in companies. To the extent possible, it supported these ancillary activities, believing that they enriched both the skills of teachers and the quality of pupils' training.

G. Key figures of the project and phases carried out

Key figures:

- The ministry's trainers, members of the national core, are 26 in number. They provide training for provincial nuclei, which train school teachers throughout their educational provinces;
- The formation of provincial nuclei has gone through two moments:
    - October to December 2019, in 9 educational provinces: 50 participants were trained at each training site, i.e. a total of 450 Provincial Inspectors and a handful of Professors constituted as members of the provincial nuclei;
    - April 2023: Inspectors from 60 educational provinces received additional training on the use of Banana accounting software. The training was organized by grouping together in the 26 administrative provinces two or three educational provinces. Each site welcomed 50 participants. A total of 1300 Inspectors and Professors of the commercial and management sector have thus seen their skills in digitized accounting strengthened.
- Teachers in 5,769 schools have been trained at the rate of two teachers per school, one in accounting, the other in computer science. A total of 11,538 teachers were trained in classroom learning how to use the accounting software Banana Accounting, chosen as a tool for learning and evaluating practical integration situations.
- More than 76,000 students have been trained until the end of their course and have been subject to the certifying evaluation (State Exam or Baccalaureate).
- 5,769 schools in the business and management stream have used the Banana Accounting software as a practical classroom learning tool.

Period	**Project Phase**
2016-2017	Setting up the project.
2017-2018	Research and selection of the technology partner.
2018-2019	Adaptation of the accounting software, development of the training module, experimentation and installation of the software in schools, training of National trainers and adaptation of the curriculum.
2019-2020	Training of trainers in the provinces: (i) Kinshasa (Mount Amba, Funa, Lukunga, Tshangu and Plateau); (ii) Haut-Katanga1; (iii) Lualaba 1; (iv) Kongo Central 1, 2 and 3. Development of teaching materials, installation of software in computer rooms, experimentation with students in the 3rd and 4th years, improvement of the software; implementation of the VAT solution, budget indices and OHADA carry-overs.
2020-2023	Extension of the training to the entire territory of the Republic and even outside the borders in Angola. Introduction of teaching on the use of software systematically carried out in all schools.
2023	Participation in the training seminar on the OHADA framework for non-profit entities in Cotonou (Benin) and Ouagadougou (Burkina Faso). Initiation of international collaborations to share experiences and problems, particularly with other countries in the OHADA area[https://www.ohada.com/actualite/6956].
2023	Adaptation of the Banana Accounting software to the new OHADA repository for non-profit entities. Creation and implementation of charts of accounts.

2024	Design, validate, and print the practical integration situation test. Mission across the educational provinces to ensure the passing of the practical integration situation test. Production of the summary report of the organization of the practical integration situation test with the use of the Banana Accounting software. This report concluded with the following conclusion: as the success rate is higher than the failure rate in all the target educational provinces, the Practical Integration Situations (SIPs) using the Banana Accounting software should be administered outside the session of the 2024 state exam. Field supervision of the 2024 certification evaluation focusing specifically on the transfer of professional practice, during which the students were subjected to practical integration situations and the various tasks were carried out with the help of the Banana Accounting software.

IV. Future prospects and actions

The project has achieved its objective of training the majority of teachers in schools.
They are now able to:

- Using computers, installing the necessary software, managing a computer room.
- Train students in accounting and the specificities of OHADA, teach them the use of a computer, the basic software and the accounting software.

1 - Priorities

However, there are many schools that lack computer labs. This is why the priorities are now as follows:

- Create the necessary conditions by supporting schools in the acquisition of the required computers, so that students can receive training with digital tools.
- Transform the current teacher training system into a system of in-service training, capable of training new teachers and keeping existing teachers up to date.

2 - Creation of a self-correction system

Thanks to the use of software, students' work is much better structured and more readable, which greatly facilitates the work of correction for teachers.

Banana.ch is developing an innovative system that will automate the correction of exercises. This system will include guided training and automatic marking, making learning even more efficient and interactive.

3 - Development of two new modules

To make our learning tool comprehensive in relation to the Business Humanities curriculum, it is necessary to develop the above modules.

- A module for training pedagogical trainers in the design of webinars.
- A module to give instructions on how to set up the payroll, to issue stock sheets according to valuation methods, and to produce tax returns on profits and profits.

4- Strengthening the capacity of provincial nuclei

A refresher training course is seriously considered in order to introduce the complete chart of accounts, the chart of accounts having been initially simplified in the Banana Accounting software in

order to facilitate the use and understanding of the learners. This refresher training will also cover the use of the account plans of non-profit or non-profit entities.

5 - State of play of the examination centres

At the time of the Practical Integration Situations, many of the Practical Integration Situations did not yet have a local network installed. Since all computers must be interconnected and linked to a printer for procurement, it should be ensured that each centre is equipped with a local area network and working printers in the near future. In centres with computers that are not compatible with the Banana Accounting software, the computer equipment must be replaced.

6 - Strengthening school infrastructure

Many schools do not have computers and projectors, or even a classroom equipped with computers to carry out the exercises. Modern equipment for these schools should therefore be purchased and installed, as well as a solar energy system. Many establishments must also be equipped with Internet and wifi.

7 - Creation of digital teaching materials

Educational materials available in digital format would have the distinct advantage of making the most up-to-date information available easily and free of charge in all parts of the country and even in remote and underserved schools, thus offering the possibility of having a high level of training everywhere.

The design and preparation of such digital teaching materials, including video presentations and regular updates, remain very challenging to date. To do this, teachers must in the future be specifically trained in new technologies; An infrastructure for managing and distributing content must also be created.

8 - Creation for mobile devices

A future goal of the project would be to ensure that each student has his or her own computer with which to access the teaching materials and practice with professional software. Ideally, for the school to have personal smartphones, which can be used as laptops thanks to lapdocks.

However, these products are currently very expensive. We believe that creating reference specifications could create such a large market that many tech companies could develop models at very competitive costs. To achieve this objective, an analysis and testing phase, aimed at defining these specificities while finding a fair compromise between functionality and cost, must still be initiated.

9 - Data exchange and storage platform

The effective use of advanced computing resources requires a platform for accessing, exchanging and sharing data, both for teachers and students. The existing infrastructure is very much linked to the supplies of the various manufacturers and is based on non-local infrastructures. It is therefore necessary to develop a data rescue and sharing infrastructure in the first place, specifically adapted to the school environment and easily implemented at the local level.

10 - International Collaboration

The challenges and problems facing the Democratic Republic of Congo are the same as those experienced by many other countries. International cooperation is therefore crucial to accelerate

development, reduce costs and improve efficiency. What is more, such collaboration is all the more appropriate in the field of accounting as the rules are the same throughout the OHADA zone, which covers 17 West African nations. The first step in this direction would be to organise a platform for sharing experiences as well as seedlings and congresses.

11 - Adaptation of the curricula

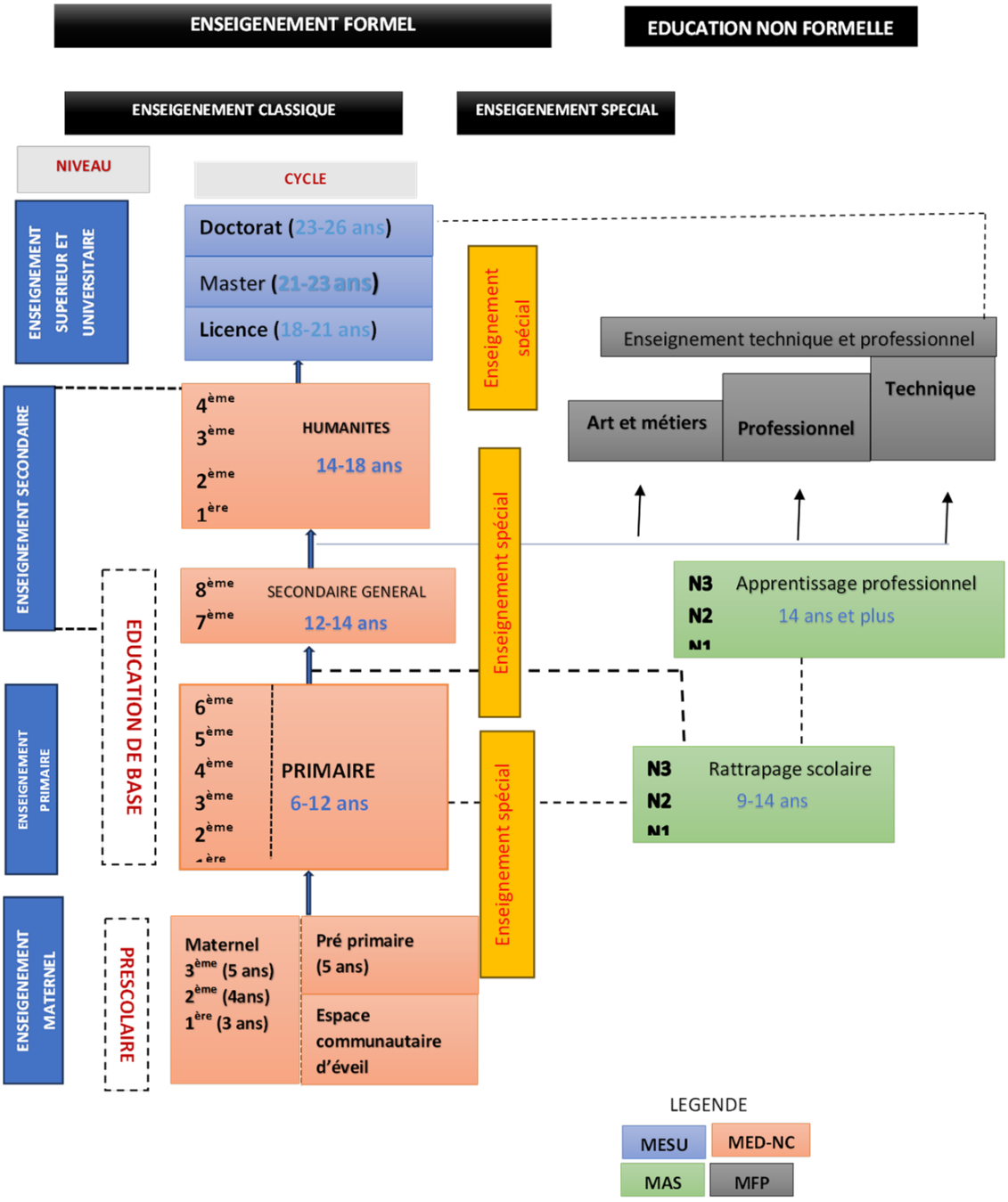
As many accounting tasks will be automated in the future, the training of accountants will need to place an increasing emphasis on the use of digital tools, financial forecasting and other more advanced activities. Training programmes will need to be continuously adapted and improved. New experiments will also have to be carried out and new training materials will have to be prepared on the basis of monitoring and evaluations.

12 - Teaching Quality Assurance System

To improve education, changes need only be introduced, but the effectiveness of the use of new technologies must be carefully verified. The ministry and the provinces must be supported financially and technically to ensure these audits and improve the quality of education.

Appendix 1

Diagram of the organization of education in the DRC



Appendix 2

Synoptic table of the evolution of the data of the Ministry of Edu-NC 2019-2020

(©DIGE/MINEDU-NC 2024, data collected from the 60 Educational Provinces, statistical yearbooks 2019-20 and 2020-21 and 2023-24)

Parameters	Level of education	Sex	Yearbook situation 2019-2020		
			Public 2019-2020	Private 2019-2020	Total 2019-2020
Schools (establishments)	Preschool		4 192	4 058	8 250
	Primary		52 092	7 895	59 987
	Secondary		27 535	5 252	32 787
	Total		83 819	17 205	101 024
	% School		83,0%	17,0%	100,0%
Organized classes (pedagogical group)	Preschool		13 042	11 787	24 829
	Primary		402 827	54 260	457 087
	Secondary		258 870	68 870	327 740
	Total Classes		674 739	134 917	809 656
Enrolled students	Preschool	DONE	180 680	112 345	293 025
		THREAD	191 680	117 821	309 501
		UNTIL	372 360	230 166	602 526
	Primary	DONE	8 666 608	1 055 835	9 722 443
		FILL	8 002 095	1 064 482	9 066 577
		UNTIL	16 668 703	2 120 317	18 789 020
	Secondary	DONE	3 283 467	573 739	3 857 206
		THREAD	2 412 024	535 999	2 948 023
		UNTIL	5 695 491	1 109 738	6 805 229
	Total Male Students		12 130 755	1 741 919	13 872 674
	Total Female Students		10 605 799	1 718 302	12 324 101
	Total Students		22 736 554	3 460 221	26 196 775
	% Students		86,8%	13,2%	100%
Teaching staff	Preschool	FEM	12 320	11 566	23 886
		UNTIL	12 940	11 807	24 747
	Primary	FEM	121 284	21 829	143 113
		UNTIL	392 526	53 679	446 205
	Secondary	FEM	64 294	11 805	76 099
		UNTIL	398 052	76 172	474 224
	Total Men		605 620	96 458	702 078
	Total Women		197 898	45 200	243 098
	Total Teacher		803 518	141 658	945 176
	% Teacher		85,0%	15,0%	100%

Synoptic table of the evolution of the data of the Ministry of Edu-NC 2020-2021

(©DIGE/MINEDU-NC 2024, data collected from the 60 Educational Provinces, statistical yearbooks 2019-20 and 2020-21 and 2023-24)

Parameters	Level of education	Sex	Yearbook situation 2020-2021		
			Public 2020-2021	Private 2020-2021	Total 2020-2021
Schools (establishments)	Preschool		5 736	4 700	10 436
	Primary		59 588	10 489	70 077
	Secondary		31 613	6 834	38 447
	Total		96 937	22 023	118 960
	% School		81,5%	18,5%	100,0%
Organized classes (pedagogical group)	Preschool		21 944	16 003	37 947
	Primary		631 716	102 630	734 355
	Secondary		503 856	68 311	572 167
	Total Classes		1 157 516	186 953	1 344 469
Enrolled students	Preschool	DONE	235 590	123 142	358 732
		THREAD	247 374	128 208	375 582
		UNTIL	482 964	251 350	734 314
	Primary	DONE	9 283 365	1 111 820	10 395 184
		FILL	8 658 050	1 116 040	9 774 091
		UNTIL	17 941 415	2 227 860	20 169 275
	Secondary	DONE	3 482 797	646 380	4 129 177
		THREAD	2 599 489	620 748	3 220 237
		UNTIL	6 082 286	1 267 128	7 249 414
	Total Male Students		13 001 752	1 881 342	14 883 093
	Total Female Students		11 504 913	1 864 996	13 369 910
	Total Students		24 506 665	3 746 338	28 253 003
	% Students		86,7%	13,3%	100%
Teaching staff	Preschool	FEM	17 047	13 115	30 163
		UNTIL	18 265	13 599	31 917
	Primary	FEM	138 257	26 822	165 079
		UNTIL	446 243	65 756	511 999
	Secondary	FEM	76 232	14 908	91 140
		UNTIL	463 121	94 683	557 804
	Total Men		696 093	119 246	815 339
	Total Women		231 536	54 845	286 381
	Total Teacher		927 629	174 038	1 101 667
	% Teacher		84,2%	15,8%	100%

Synoptic table of the evolution of the data of the Ministry of Edu-NC 2023-2024

(©DIGE/MINEDU-NC 2024, data collected from the 60 Educational Provinces, statistical yearbooks 2019-20 and 2020-21 and 2023-24)

Parameters	Level of education	Sex	Yearbook situation 2023-2024		
			Public 2023-2024	Private 2023-2024	Total 2023-2024
Schools (establishments)	Preschool		6 376	5 641	12 017
	Primary		60 548	9 558	70 106
	Secondary		33 638	7 861	41 499
	Total		100 551	23 059	123 610
	% School		81,3%	18,7%	100,0%
Organized classes (pedagogical group)	Preschool		25 553	16 089	41 642
	Primary		460 470	76 818	537 288
	Secondary		373 581	104 168	477 749
	Total Classes		859 604	197 075	1 056 679
Enrolled students	Preschool	DONE	196 821	148 479	345 300
		THREAD	230 919	144 738	375 657
		UNTIL	427 740	293 217	720 957
	Primary	DONE	10 030 305	1 421 012	11 451 317
		FILL	8 656 674	1 185 822	9 842 496
		UNTIL	18 686 979	2 606 834	21 293 813
	Secondary	DONE	3 387 354	750 683	4 138 037
		THREAD	2 619 275	772 477	3 391 752
		UNTIL	6 006 629	1 523 160	7 529 789
	Total Male Students		13 614 480	2 320 174	15 934 654
	Total Female Students		11 506 868	2 103 037	13 609 905
	Total Students		25 121 348	4 423 211	29 544 559
	% Students		85,0%	15,0%	100%
Teaching staff	Preschool	FEM	24 661	35 726	60 387
		UNTIL	30 084	40 104	70 188
	Primary	FEM	259 283	189 899	449 182
		UNTIL	715 333	580 551	1 295 884
	Secondary	FEM	144 525	103 247	247 772
		UNTIL	678 961	629 492	1 308 453
	Total Men		995 909	921 275	1 917 184
	Total Women		428 469	328 872	757 341
	Total Teacher		1 424 378	1 250 147	2 674 525
	% Teacher		53,0%	47,0%	100%

Appendix 3

Example of a Practical Integration Situation

RÉPUBLIQUE DÉMOCRATIQUE DU CONGO

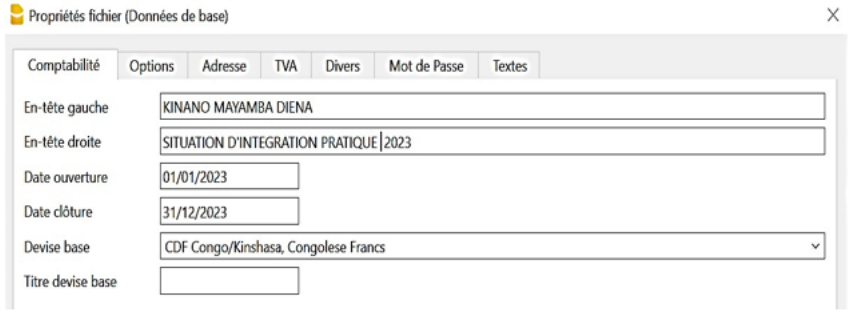
INSPECTION GENERALE

SITUATION D'INTEGRATION PRATIQUE (S.I.P)

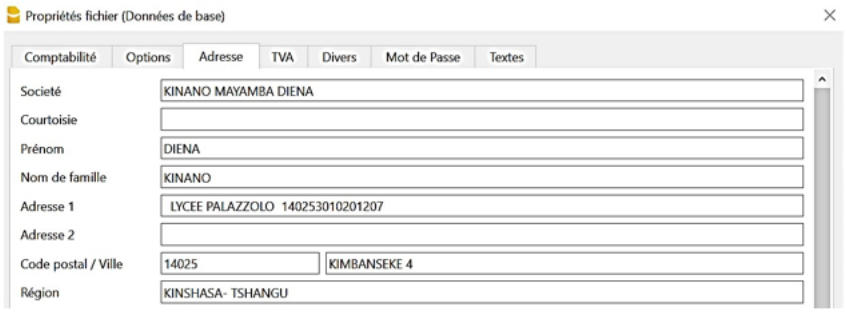
Session 2024	H.1,5	S.4	U.15

CONSIGNES

Chaque candidat doit indiquer son identité complète au niveau des propriétés fichier selon les exemples des images suivantes :



- En-tête gauche : nom, post-nom et prénom de l'apprenant ;
- En-tête droite : Écrire Situation d'Intégration Pratique suivie de l'année d'édition de l'Examen d'État.



- Société : écrire le nom, post-nom et prénom de l'apprenant ;
- Prénom : écrire le prénom ;
- Nom de la famille : répéter le nom ;
- Adresse 1 : écrire le nom de l'établissement ;
- Code postal/ville : écrire le code du centre suivi du nom du centre ;
- Région : écrire la province éducationnelle.

Session 2024	H.1,5	S.4	U.15

Niveau : 4ème année des humanités commerciales et gestion

Fonction : Tenir la comptabilité

Compétence intégrée 1.2. : Participer aux travaux de fin d'exercice

Compétence visée 1.2.4. Procéder à l'actualisation du fichier d'immobilisations et à la réévaluation.

R01. Calculer les annuités d'amortissement.

R03. Dresser le tableau des amortissements.

R04. Passer les écritures d'amortissement

Contexte

Au 31 décembre 2023, la S.A. SAGANAC située sur l'avenue du port n°21 immeuble flamboyant 7ème niveau, RCCM 19-B-2411, ID.NAT. 02-45-M7625 Procède aux travaux de fin d'exercice.

Ayant constaté les erreurs commises dans l'actualisation du fichier d'immobilisations, le comptable vous confie la tâche en votre qualité de futur Assistant comptable, apprenant de la 4ème commerciale et Gestion en stage, d'actualiser ledit fichier et d'importer les écritures en comptabilité endéans 1h30' sur base des données reprises en annexe ci-dessous.

Supports autorisés :

- Ordinateurs avec logiciel Banana Comptabilité ;
- Plan des comptes (se trouvant dans mes documents) ;
- Liste des comptes.

ANNEXE : INVENTAIRE PHYSIQUE DES IMMOBILISATIONS

Compte	Immobilisations	Valeur d'acquisition	Durée de vie	Date d'acquisition	Date de mise en service	Mode d'amortissement
2313	Bâtiments Adm. & Com	520.000.000	50 ans	01/01/2023	01/01/2023	Linéaire
2442	Matériels informatiques (Ordinateurs)	60.000.000	4 ans	31/05/2023	30/06/2023	Linéaire
2451	Matériel auto	48.000.000	5 ans	01/01/2023	01/01/2023	Dégressif

GRILLE D'EVALUATION / APPRENANT

	CRITERES	PONDERATIONS
1.2.4. PROCEDER A L'ACTUALISATION DU FICHIER D'IMMOBILISATIONS ET A LA REEVALUATION	Edition du tableau des amortissements	14 Points
	Calcul des annuités d'amortissements	6 Points
	Passation des écritures d'amortissement	10 Points