

D.2.1: Skills gap analysis in Electricity and Recommendations

T2.1: Study visits and in-depth analysis to identify the companies needs in Electricity

T2.2: Study visits and in-depth analysis to set the state of play of VET curricula and benchmark with European framework

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I. Context of the Report

A. Purpose of the Document

The objective of this report is to provide a comprehensive analysis of existing skills gaps in vocational education and training (VET) programs in Burkina Faso, Benin, and Cameroon, particularly in the electricity sector. This analysis aims to inform the development and improvement of training modules for both initial VET learners and continuing education professionals in the electricity sector. The goal is to align VET provision with the current and future needs of the targeted sector, integrating advances in digital and green technologies to improve the qualifications and skills of employees and future employees. This document is part of a broader effort under *Work Package 2: Creation of Innovative Training Modules* to support the development of the electricity sector through the creation of innovative training modules in Burkina Faso, Benin, and Cameroon.

B. Structure of the Report

The report is structured into three main thematic sections. Section 1 provides detailed information on the context and history of the project, an overview of the national VET system in the three target countries, and a brief presentation of the VET schools/centers involved. Section 2 presents the main findings from the literature review, questionnaires, interviews, field visits, and focus group discussions. The final section offers conclusions and recommendations to inform about the development of new and innovative training modules for initial and continuing VET in the electricity sector.

C. Methodological Approach

This report is based on a diversified methodological approach. It combines documentary analysis relating to the national context and VET systems in Burkina Faso, Benin and Cameroon, with a particular focus on the electricity sector. In order to collect data from countries and partners, questionnaires were developed for companies, training centers and various stakeholders. They served as a basis for exchanges during study visits. In close consultation with project partners, a methodology was developed to specify the timetable and key stages of the analysis phase. Information collection relied on a combination of approaches: field visits, questionnaires, formal and informal face-to-face exchanges between partners, supplemented by regular remote communication (emails and messaging). Working via the Google Drive platform allowed all partners to work on the document, make changes or additional information or even validate the information during the writing of the report.

1. Questionnaires

Sample questionnaires were prepared and submitted to partners, to be used as support during interviews during study visits. These questionnaires were intended for training centres, companies



and policy makers. These checklists included questions relating to the world of vocational education and training and the target area.

An online questionnaire was designed for learners in Burkina Faso, as no study visits could be carried out in that country due to the situation there. 8 answers were collected. As planned in the application, an electrical training instructor and an educational advisor/project manager joined the teams in Benin to carry out the study visit to their country.

Online forms were sent to companies in each country to gather their feedback on collaboration with training centres and the local economic context. 15 responses were collected, i.e. 5 responses from companies per country.

The aim of the questionnaires was to obtain key information from the local economic sector and relevant stakeholders, including the three partner VET centres in Africa, companies, learners and partners associated with the project, the Chamber of Commerce and Industry of Burkina Faso, the Ministry of Employment and Vocational Training of Cameroon, the National Employment Fund of Ebolowa (Cameroon) and the Ministry of Secondary, Technical and Vocational Education of Benin, in order to establish a baseline for future analysis and the development of new training modules.

The detailed questionnaires are attached to this document - Annexes 1, 2, 3, 4 and 5. The responses are not included for reasons of data sensitivity.

2. Focus Groups

A toolkit for preparing the study and analysis visits was designed to analyze opinions, viewpoints, and the realities on the ground in the three countries and according to the different information groups: companies, VET centers, stakeholders, teachers, managers, and learners. During the study visits to Benin and Cameroon, samples from these categories were invited to participate in focus groups with the SEPR and SCF training teams. Participants were able to freely express their ideas and viewpoints, thus fostering discussion and debate on the target sector and vocational training policy in Benin, Burkina Faso, and Cameroon.

The detailed focus group toolkit is presented in Annexes 6, 7 and 8, along with the lists of participants.

II. Project Summary

The VET-POWER project, co-funded by the European Commission under Erasmus+ CBVET 2024, is a dedicated initiative aimed at improving qualifications in the electricity sector in three Vocational Educational Training centres in three African countries, namely Burkina Faso, Benin and Cameroon. It seeks to strengthen capacity building for trainers, managers, in-company tutors in cross-disciplinary skills such as green and digital transition, inclusion, entrepreneurship and internationalisation, as well as contribute to the development of work-based learning.

The current project builds upon four years of successful cooperation within the unprecedented SAAM (Supporting Alliance for African Mobility) Pilot mobility scheme project. It aims to further strengthen the achievements of SAAM, involving diverse spectrum of stakeholders active in the field of VET in Benin, Burkina Faso, Cameroon, Spain, Italy and France.

Key objectives have been identified to guide the project's activities:



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- Reinforce the links between vocational education and training and the labour market, by aligning VET curricula with companies needs.
- Improve the quality of VET provision in the electricity sector, while integrating the digital and green transitions.
- Strengthen the competences, skills, and employability potential of VET learners and improve integration into the world of work.
- Strengthen the knowledge, and pedagogical skills of VET managers, teachers and in-company tutors via trainings and sharing of good practices.
- Embed an internationalisation mindset and reinforce the capacities of VET providers in internationalization strategy.
- Introduce Work-Based Learning framework to bring closer VET education and the private sector.

VET-POWER initiates its efforts with a thorough analysis of the current context to identify companies' needs and assess the state of VET curricula in Benin, Burkina Faso and Cameroon in the electricity sector. Subsequently, benchmarking with the European framework will guide the development of new training modules for both Initial and Continuous VET in these fields.

The project will undertake the following specific activities:

- **Diagnosis and strategic development:**
 - Make an initial diagnosis of the state of play of the labour market and VET provision through study visits, focus groups and interviews with the companies.
- **Creation of Innovative Training Modules:**
 - Adapt and modernize training courses in electricity, incorporating digital and green transitions for both initial and continuing VET.
- **Capacity Building:**
 - Enhance the skills of teachers, managers, and in-company tutors across a diverse spectrum of competences through job-shadowing and training sessions by transferring pedagogical approaches, teaching and training methods and materials including Work-Based Learning.
- **Internationalisation and Cooperation:**
 - Anchor internationalisation dimension into the practices of VET providers through mobility, project design and management schemes.



III. Background and Context

A. Background and Current Context

1. Benin

Politics & Governance: President Patrice Talon has completed his term in office, leaving a legacy of institutional reforms and major projects (modernization of the Port of Cotonou, improvement of the road network, improvement of schools, rural water and electricity, etc.).

Security & Humanitarian Crisis: The country is relatively stable, with no major internal conflicts, although regional tensions can affect security.

Economy & Daily Life: In 2024, economic growth reached 7.5%, driven by the services and industry sectors.

International Relations and Strategic Directions: Benin is pursuing its policy of regional economic integration, despite the challenges associated with neighbouring crises.

2. Burkina Faso

Politics & Governance: Since the 2022 coup, Burkina Faso has been ruled by a military junta led by Ibrahim Traoré, who extended the transition to a civilian government until 2029.

Security & Humanitarian Crisis: The country is plunged into a jihadist insurgency: approximately 40% of the territory is beyond state control, more than two million people have been displaced, and access to basic services is severely disrupted.

Economy & Daily Life: Despite growth of approximately 4-5%, poverty remains high, and inflation, especially food inflation, is undermining living conditions.

International Relations & Strategic Directions: Burkina Faso has left ECOWAS (Economic Community of West African States), is distancing itself from the West, and is seeking new partners while asserting its national sovereignty.

3. Cameroon

Politics & Governance: President Paul Biya, 91, has announced his candidacy for an eighth term in 2025.

Security & Humanitarian Crisis: The security situation is marked by the resurgence of the conflict with Boko Haram in the north, leading to internal displacement and regional tensions.

Economy & Daily Life: Real GDP grew by 3.5% in 2024, supported by rising cocoa prices and cotton yields.

International Relations & Strategic Directions: Cameroon maintains its position within international organizations, despite internal challenges and regional tensions.



B. Main Elements of VET within the National Qualification Framework

Countries	Number of training centers in the country (approximately)	Trends in electrical training in the country
Benin	A hundred	Popular type of training in the country, great interest from young people and parents.
Burkina Faso	401 (including 77 in Bobo-Dioulasso)	Growth in registrations, most BSB centers (31 public) train in the 2 electrical professions.
Cameroon	Between 140-150	Growing interest

Table 1: Main Elements of VET within the National Qualification Framework

Countries	Professional diploma(s)	Average entry age	Average exit age	EQF Level	Description
Benin	CQP / CQM (Professional Qualification Certificate / Professions)	14 – 15 years old	16 – 18 years old	EQF 2 – 3	Dual apprenticeship (center + company). Accessible to young people who have dropped out of school.
	CAP (Certificate of Professional Competence)	15 – 16 years old	18 – 19 years old	EQF 3	Basic vocational training.
	BEP / BT (Vocational Studies Certificate / Technician's Certificate)	16 – 17 years old	19 – 20 years old	EQF 4	Technical qualification, professional autonomy.
	Technical Baccaalaureate / Professional Baccaalaureate	17 – 18 years old	20 – 21 years old	EQF 4 – 5	Access to BTS (diploma of level 5) or direct employment.
	BTS / DUT	20 – 21 years old	22 – 23 years old	EQF 5	Higher technician training.
	Professional Degree	21 – 22 years old	24 – 25 years old	EQF 6	Technical autonomy and management.
Cameroon	CAP (Certificate of Professional Competence)	15 – 16 years old	18 – 19 years old	EQF 3	Same structure as Benin, French-speaking route.
	Technical Probationary Diploma (French-speaking)	17 years old	18 years old	EQF 3 – 4	Intermediate diploma before the technical baccaalaureate.
	Technical Baccaalaureate / Professional Baccaalaureate	18 – 19 years old	20 years old	EQF 4 – 5	Key diploma for employment or continuation in BTS.
	BTS (French-speaking) / HND (English speaking)	20 – 21 years old	22 – 23 years old	EQF 5	Internationally recognized HND (English-speaking model).
	Professional Degree	21 – 22 years old	24 – 25 years old	EQF 6	Strong specialization.
Burkina Faso	CAP (Certificate of Professional Competence)	15 – 16 years old	18 – 19 years old	EQF 3	Basic training, close to Benin and Cameroon.
	BEP / BT (Vocational Studies Certificate / Technician's Certificate)	16 – 17 years old	19 – 20 years old	EQF 4	Intermediate diploma.
	Technical Baccaalaureate / Professional Baccaalaureate	17 – 18 years old	20 – 21 years old	EQF 4 – 5	Key step towards BTS (diploma of level 5) or integration.
	BTS	20 – 21 years old	22 – 23 years old	EQF 5	Senior technician.
	Professional Degree	21 – 22 years old	24 – 25 years old	EQF 6	Professional autonomy.

Table 2: National framework of professional certifications in the 3 African countries



C. Supervision of VET Institutions

1. Benin

- Ministry of Secondary, Technical and Vocational Education (MESTFP)

Ministry is responsible for technical education and vocational training. It develops and implements TVET (Technical and Vocational Education and Training) policy. Its TVET strategy includes issuing the Professional Qualification Certificate (CQP) for artisans and apprentices. It also oversees the equipment of new centers through initiatives to equip technical high schools and vocational centers. All high schools and vocational training centers are managed by this Ministry.

- Ministry of Labour and Public Service (MTFP)

Ministry responsible for the lifelong learning of public officials and private sector workers. Through its Directorate General for Capacity Building and Employability, it produces an annual directory of continuing education centres, a monitoring and coordination tool for all stakeholders.

- Ministry of Small and Medium-Sized Enterprises and Employment Promotion (PMEPE)

This ministry works to promote apprenticeships in craft trades through sectoral projects. For example, the FEF+ project (Support for Vocational Training and Development of Apprenticeships in Crafts) has trained 350 artisans with the support of CMA-Benin and the French Embassy.

- Agencies and intermediary structures

ADET (Technical Education Development Agency): key institution, operational arm of the MESTFP, it is responsible for updating the reference documents, and all subjects concerning professional training.

Chambers of Trades/Crafts (CMA-Benin): engaged in professional training initiatives and project development.

ANPE (National Employment Agency): intermediary between job supply and demand through information, guidance, support and advice activities and prospecting for job opportunities. It contributes to the development and implementation of the national employment policy, with a view to reducing the unemployment rate.

2. Burkina Faso

- Burkina Suudu Bawdè (BSB)

Also called the Burkina Skills Center, it was created in July 2023 and brings together several structures (ANFP, CEFPO, CFPI-B, CFPR-Z, Permanent Secretariat of the National Certification Commission) into a centralized public agency. It is the main operator of vocational training.

- Ministry of Youth, Vocational Training and Employment (MJFPE)

Lead ministry for vocational training. It oversees policies, regulations, guidance, and coordination of vocational training and apprenticeship schemes. It manages or supervises specialized structures such as the Vocational Training and Apprenticeship Support Fund (FAFPA), public training centers (CFPI, CEFPO, etc.), as well as Burkina Suudu Bawdè.

- Ministry of Secondary Education, Vocational and Technical Training (MESFPT)

Responsible for technical and vocational education (ETP) integrated into the education system, coordinates technical high schools, vocational middle schools, technical training schools. Works with the MJFPE for the articulation between initial training and qualifying professional training.

- Department of Energy, Mines and Quarries



Coordinates and oversees electrical training, develops technical skills and skills in renewable energy.

- **Fund for Support of Vocational Training and Apprenticeship (FAFPA)**

The main public funding mechanism supporting individual or group training, through the employer apprenticeship tax (TPA, 3%). It subsidises up to 87.5% of the costs.

- **Ministry of Sport, Youth and Employment (MSJE)**

It plays a central role, developing and implementing national policy, regulating, establishing and supervising public and private centres, managing certification, training engineering, curricula, examinations, scholarships and partnerships.

- **Regional councils and local authorities**

Involved in the decentralised implementation of training programmes.

- **Social partners** (trade unions, employers, chambers of commerce)

Often associated with defining requirements and governing systems.

- **CCI (Chamber of Commerce and Industry)**

Supports training, facilitates access to higher education programmes and the labour market.

3. Cameroon

- **Ministry of Employment and Vocational Training (MINEFOP)**

As the main ministry for vocational training, it develops and implements national vocational training policy. It is also responsible for managing and monitoring vocational training centers. It develops apprenticeships and certification (CAP, CQP, etc.), while also piloting youth employment and integration programs.

- **Ministry of Secondary Education (MINESEC)**

The ministry responsible for technical and vocational education at the secondary level, it manages technical high schools and industrial, commercial, and agricultural programs. It works closely with MINEFOP to ensure continuity between initial training and qualifying training.

- **Ministry of Higher Education (MINESUP)**

It develops higher-level vocational training programmes (IUT, BTS, vocational degrees, engineering schools) and contributes to the professionalisation of public and private universities.

- **Ministry of Youth and Civic Education (MINJEC)**

It participates in the socio-professional integration of young people, training workshops, and apprenticeship programmes.

D. Lifelong Learning and Policy Directions

1. Benin

Lifelong Learning

Lifelong learning is a process of skills development undertaken individually by employees, at their own expense, in order to train and enrol in training courses. The process is the same for those changing careers. However, employers have the option of getting involved and participating in their employees' skills development. The University of Benin offers continuing professional education courses. Businesses and state-owned companies promote continuing professional development through



training plans within their organisations. The head of the profession confederation forms communities by area according to the profession, enabling refresher courses or capacity building.

The Ministry is aware that improving the skills of training centres requires lifelong learning for teachers. As part of future reforms concerning vocational training, there will be a strong focus on teacher training.

Policy guidance

Vocational training is one of the Beninese government's major priorities. The Ministry of Secondary, Technical, and Vocational Education has highlighted several priority projects:

- lifelong learning for teachers, particularly through international partnerships,
- the development of vocational schools and vocational training centres.

The objective is to shift to a model where 70% of learners will be enrolled in technical and vocational education, compared to 30% in general secondary education by 2030. The State is putting more resources into vocational training and technical education, in particular by increasing the number of vocational high schools and reducing the number of general education establishments.

Here are the key elements to remember regarding the current situation and the upcoming reforms underway:

- Eight leading vocational schools are under construction to train technicians, senior technicians, and workers. The training programs can be integrated into initial, dual, or lifelong learning programs.
- Curricula (training standards) are currently being developed to better align with market needs. This approach is in line with a framework law for technical and vocational training; however, no timeline has been specified for the validation of these new standards.
- Internships will soon become part of the training program and mandatory.
- According to the ministry, equipment and investments for private schools must come from projects or sponsors, as no budget is allocated for equipment investments in private schools. At the same time, the government is establishing partnerships with the private sector to develop dual training.
- The government, through the ANPE (National Employment Agency), has implemented the Special Employment Integration Program. This program allows jobseekers between the ages of 18 and 40 to be employed and to be paid by the government before being taken on by the company.

2. Burkina Faso

Lifelong Learning

- Several public institutions offer lifelong learning courses, generally aimed toward administrative bodies or government officials, such as the Institute of Public Finance, the National Customs School, and the National School of Financial Administration.
- Lifelong learning aims to strengthen or update professional or administrative skills throughout a career.
- The FAFPA (Fund for Support for Vocational Training and Apprenticeship), which finances initiatives. The FAFPA contributes to implementing government policy on lifelong learning vocational training and apprenticeships.



- Burkina suudu bawdè (Burkina Skills Centre), which brings together 31 vocational training centres (national, regional and provincial), works to promote quality and employability through initiatives such as internships, private partnerships and equipment modernisation.
- Draft decrees are currently being prepared to provide lifelong learning for teachers, for example, with the aim of harmonising practices in public vocational training centres.

However, there are many challenges in terms of funding, trainer training, quality consistency and the finalisation of certain regulatory texts.

Policy guidance

- Vocational training in Burkina Faso is considered an essential lever for human capital development, job creation, self-employment and poverty reduction. It is enshrined in the main national policy guidelines (PRSP, laws of 1996 and 2007, National Policy of 2008, Strategy of 2014).

Various strategies and policy directions aim to strengthen vocational training:

- The National Employment and Vocational Training Strategy (ONEF) aims to:
 - Increase access to vocational training for as many people as possible
 - Establish effective and sustainable funding for vocational training.
- The Burkina Skills Centre / Burkina Suudu Bawdè enables:
 - the creation of a unified public operator, bringing together 31 vocational training centres.
 - offer training in several trades (civil engineering, mechanics, electrical engineering, IT, agri-food, etc.), with flexible durations (1 to 18 months) depending on needs.
 - aims to reduce youth unemployment/underemployment by improving employability.

Among these measures, the government wishes to increase the proportion of students directed towards technical education and vocational training, with the aim of reaching 60% of secondary school students, compared with 5% at present.

The main institutions implementing vocational training are:

- **The DGFP** (Directorate-General for Vocational Training): responsible for developing, implementing and monitoring national policy, as well as for educational organisation and apprenticeships.
- **The FAFPA** (Fund for Support for Vocational Training and Apprenticeship): finances lifelong learning and apprenticeships through various mechanisms (training plans, collective projects, calls for projects).
- **Burkina Suudu bawdè (BSB)**: the main public operator for skills development, with affiliated structures (Certification Centre, Engineering Centre, Support Unit) and decentralised structures (interregional and regional directorates).
- **The DG/EFTP** (Directorate-General for Technical and Vocational Education and Training): administers private training centres, supervised by the specifications applicable to private vocational training centres.

Furthermore, solar energy is a national priority, with the creation of two dedicated agencies:



- Burkina Faso Renewable Energy Agency (ABER);
- National Agency for Renewable Energy and Energy Efficiency (ANEREE).

In short, vocational training in Burkina Faso is based on a strengthened legal and institutional framework, a diversified offering, and an organisation structured around several key structures, with the aim of improving employability and combating poverty.

3. Cameroon

Lifelong Learning

In Cameroon, lifelong learning is governed by Law No. 2018-010 of 11 July 2018, which recognises its role in adapting and updating workers' skills. This law highlights key principles: training-employment adequacy, public-private partnership, work-based learning, validation of acquired experience (VAE), equity and decentralisation.

Current policy guidelines aim to

- the digital transformation of technical and vocational education and training, to modernise content and methods;
- pilot projects such as FormPro 237, which strengthen apprenticeships and the retraining of young people and trainers in promising sectors;
- the professionalisation of higher education with employment-oriented courses, internships and certificates;
- the strengthening of career guidance and information structures to better guide learners and workers towards available continuing education programmes.

Despite these policy guidelines, challenges remain: lack of infrastructure and qualified trainers, regional disparities, difficulties in securing long-term funding, and low uptake of accreditation of prior learning. The government is therefore seeking to make lifelong learning more accessible, better suited to the needs of the labour market, and more effective in terms of professional integration and retraining.

Policy guidance

The policy orientation of vocational training in Cameroon focuses on improving access to quality training that meets labour market needs and promoting entrepreneurship and decent employment. Under the supervision of the Ministry of Employment and Vocational Training (MINEFOP), the system aims to increase the number of young people and adults trained in the technical skills necessary for industrialisation, based on Law No. 2018/010 of 11 July 2018: it governs vocational training, defining the general legal framework and fundamental guidelines for the system.

Objectives of the vocational training policy

- **Promote equal access without discrimination:** to high-quality technical and vocational training.
- **Develop skills:** in sectors that are driving industrialisation, such as agribusiness, renewable energy, digital technology and mining.
- **Foster entrepreneurship:** to create decent and productive jobs.
- **Reduce disparities:** by ensuring a better match between training and employment.



E. Management and Coordination of VET

1. Benin

Public training centers	Private training centers
<ul style="list-style-type: none"> - Under the aegis of the State. - Not autonomous. - Staff appointed by the State (headmaster, director and other members of the administration appointed by the State). - State program 	<ul style="list-style-type: none"> - Autonomous regarding the organization of their center - Director of Studies and General Overseer, mandatory functions dependent on the State and appointed by the State - In the case of Don Bosco centers: the directors (of the work/parish and center) are appointed by a provincial. Other staff members are recruited through standard recruitment. - State programs, but more flexible in their implementation, and easier to bridge the gap with the job market.

Table 3: Differences in governance and autonomy of private and public training centres in Benin

2. Burkina Faso

Public training centers	Private training centers
<ul style="list-style-type: none"> - Under state supervision. - Centralized management and funding by the state. - Non-autonomous (strategic and budgetary decisions made by the state). - Staff appointed by the state (principal, director, and other members of the administration appointed by the state). - State program 	<ul style="list-style-type: none"> - Autonomy regarding the organization of their center. - Director of Studies and General Overseer are mandatory functions dependent on the State and appointed by the State. - In the case of Don Bosco centers: the directors (of the work/parish and center) are appointed by a provincial. Other staff members are recruited through standardized recruitment. - State programs, standards, and accreditations are defined by the State, but more flexibility in their implementation, and easier to bridge the gap with the job market.

Table 4: Differences in governance and autonomy of private and public training centres in Burkina Faso

3. Cameroon

Vocational training centers in Cameroon are governed by regulatory frameworks, including presidential decrees that define their guidelines and operations, while also providing for the participation of state actors and teaching staff. The autonomy of these centres is often influenced by their **public or private structure** and requires reforms to strengthen their ability to adapt to labour market needs.

Governance framework



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- **Regulation and supervision:** The governance of vocational training centers is governed by official texts, such as Presidential Decree No. 2020-2592, which defines the operation and rules to be respected by public and private centers.
- **Management structures:** Each public institution is headed by a Director, assisted by a Deputy Director, who manages the administrative and educational aspects. As for private centers, each of them has a management team (Administration).

Administrative and financial autonomy

Public centers have their financial autonomy which depends on the State (Appointment of members of the administration, assignment of trainers/teachers and their support, Purchase of materials, maintenance and upkeep of equipment). As for private centers, such as the IFBTSB, they have independent autonomy which comes from tuition fees, State subsidies, Donations from certain national and international organizations.

F. Quality Assurance

Countries	Structure Responsible for Monitoring/Control	Frequency and Monitoring Methods	Regulatory Framework / Control Tools	Main Objective / Quality Levers
Benin	Educational inspectors and advisors (ministry)	Random visits to secondary schools, at least once a year, sometimes more. Occasional surveys by the Ministry.	No text cited, but direct supervision via inspectors and technical departments.	Ensure the educational and administrative oversight of institutions; guarantee the compliance of teaching programmes.
Burkina Faso	Inspectors and educational advisors under the ministry responsible for vocational training	Unannounced inspection visits, at least once a year.	Public VET Centres: Law No. 010-2013/AN and Decree No. 2014-612/PRES/PM/MEF. Private VET Centres: Order No. 2018-057/MJFIP/CAB (conditions for creation, opening and operation).	Ensure compliance with national norms and standards, the relevance of learning, and the qualification of the workforce.
Cameroon	Ministry of Employment and Vocational Training (MINEFOP) via its educational inspectors	Annual inspections of training centres; reports submitted to management.	Training accreditation issued and monitored exclusively by the Ministry. May be withdrawn in the event of non-compliance.	Ensure the quality and compliance of training courses; maintain the accreditation of centres that comply with standards.

Table 5: Comparison of quality assurance systems in the three countries

IV. School/VET Centres Presentation

A. EPS SJB (Benin)

L'École Professionnelle Salésienne Saint Jean Bosco (EPS SJB), founded in 1990, is a Catholic vocational school whose mission is the integration and quality training of young people. Although a private school, it operates under the supervision of the Ministry of Secondary Education and Vocational Training, which requires it to comply with official programs and curricula. This requirement sometimes imposes a complex balance between adapting to the needs of businesses and respecting national standards.



The school offers two complementary courses: a secondary cycle covering electricity, electronics, electrical engineering, civil engineering and industrial maintenance computing (IMI), as well as a shorter vocational training course in the fields of electricity and plumbing. In 2023-2024, the establishment welcomes 743 students, including 636 boys and 107 girls, and mobilizes 106 employees. The training courses are certified by various diplomas such as the CAP, the DTI, the Technical Baccalaureate, the CQM and the CQP. With its thirty-four years of experience, particularly in the electricity sector, EPS SJB relies on a team of experienced and qualified teachers, supervised by a management and a committed project/program manager.

The center benefits from the support of partners such as ADAFO and the Belgian NGO VIA Don Bosco, which support the strengthening of vocational training systems in Africa, particularly regarding issues of pedagogy, integration, entrepreneurship, and social inclusion. However, the gradual decline in the historical financial support of the Salesians of Don Bosco is weakening the institution, which is now actively seeking new patrons and partners to ensure the sustainability and development of its activities. The school also ensures psychosocial support for young people, notably through the presence of a psychologist and increased work with families, in order to guarantee integrated training adapted to the needs of learners.

B. CFP Don Bosco (*Burkina Faso*)

The Centre de Formation Professionnelle et Technique (CFP) in Bobo-Dioulasso was established in October 1996 and is managed by the Salesians of Don Bosco. With over a quarter of a century of experience, its mission is to empower all young people, particularly those from disadvantaged backgrounds, to succeed and flourish through quality vocational training, while integrating human, civic, and religious values. The institution also welcomes young people from areas affected by insecurity, including internally displaced persons. For the 2024-2025 academic year, the center will train 750 students, including 652 boys and 98 girls, in various fields.

The CFP Don Bosco offers a wide range of training courses, structured according to the standards of the Ministry of Secondary Education and Vocational Training. The courses include a three-year short cycle (CAP) in the trades of electrical fitter, metal construction and electrical engineering; a two-year intermediate cycle (BEP) in industrial maintenance, metal structures, electrical engineering and, since 2023, in electricity and installation of solar equipment (EIES). This renewable energy course, one of the first opened in the region, covers solar photovoltaic and thermal technologies. Holders of a BEP can continue their studies to obtain a professional baccalaureate (EQF level 4). In addition, the center offers short-term continuing education courses (3 to 6 months) in IT and office secretarial work, designed to meet the growing demand for qualified profiles on the job market.

Student support is reinforced by an active work placement policy: around 250 learners are placed each year in local organisations in Bobo-Dioulasso, Ouagadougou and other cities, under the supervision of the Guidance and Integration Office (BOI). To ensure the quality and relevance of its training programmes, the centre maintains regular dialogue with its national and international partners and organises workshops with businesses in order to tailor its offering to market needs. Among its strategic partners, Schneider Electric supports the CFP by providing technical equipment, while LuxDev, the Luxembourg cooperation agency, supports the centre through specific capacity-building projects.



The CFP Don Bosco is thus a major player in vocational training in Burkina Faso, combining pedagogical experience, innovation in training programmes, attention to disadvantaged young people and solid partnerships for professional integration and adaptation to changes in the labour market.

C. IFPTDB (Cameroon)

The Institut de Formation Professionnelle et Technique Don Bosco (IFPTDB) in Ebolowa, founded in 1993 by the Salesian Fathers, aims to promote the education and technical skills of young people, particularly the most disadvantaged. The institution offers two training cycles: a technical high school, which supports learners from the first to the final year in accounting, automotive mechanics, electrical engineering, and carpentry and cabinetmaking; as well as a two-year vocational cycle, offering training in automotive mechanics, building electricity, carpentry and cabinetmaking, office secretarial and accounting, IT, computer graphics, mechanical manufacturing, and plumbing. This second program aims to give a new chance to young people who had lost hope of continuing their studies. The institute also has a boarding school for boys, open during the school year, which welcomes students from Cameroon and the sub-region, fostering an environment conducive to learning and social integration. In terms of capacity, the IFPTDB can accommodate up to 677 learners, with a maximum capacity of 40 in electrical engineering. Classes are limited to 30 students, and an average of around 10 learners sit the electrical engineering exams each year. The institution has specialised workshops with 90 individual workstations, equipped with what the centre describes as ‘moderately modern’ equipment. A regular maintenance plan ensures that the infrastructure is kept up to date, reinforced by investments in equipment made over the last three years. The institute also incorporates modules on electrical safety, waste management and environmental awareness into its programmes.

Academic performance shows an average success rate of 80%, compared to a dropout rate of around 20%. However, over the last five years, the IFPTDB has encountered several difficulties, particularly financial ones, related to the renovation of its infrastructure and equipment, as well as communication about its training programmes. Despite these challenges, the centre remains faithful to its mission: to train competent and qualified young people to meet the needs of the Cameroonian market and contribute to the country's emergence, promoting the idea that ‘a well-trained young Cameroonian is a guarantee for the future of the Republic’.

V. Key Elements of Analysis

A. Registration, Tuition and Duration

1. EPS SJB (Benin)

- Registration

Students submit an application to the centre, which is checked to ensure it is complete. New applicants take a compulsory entrance test in French, mathematics and physics, the results of which are then posted. Before the start of the academic year, a week-long soft skills training course is organised to prepare students for academic and professional requirements.



- Tuition Fees

For young people who have left school and are entering specialised plumbing or electrical courses at the start of secondary school (year 5, year 6, 6th/5th grade), the cost is 50,000 CFA francs (≈€76) for two years. For other secondary school programmes or courses (BEPC, CAP, Bac, DT), fees vary between €200 and €250 per year, with additional costs for teaching materials, exam fees, uniforms and insurance depending on the sector.

Thanks to the support of partners, some students benefit from a reduction or full coverage depending on their family's financial situation, as assessed by the educational psychologist and teaching staff. Girls pay 20% less in their second and final years to encourage enrolment and success. The school can also fund the education of certain young people if their parents do not wish them to continue.

- Duration of Schooling

The duration of training depends on the course chosen: two years for young people who have left school and are entering technical or plumbing courses, and three to six years for secondary courses leading to the BEPC, CAP, DT or baccalaureate, depending on the course.

2. CFP Don Bosco (Burkina Faso)

- Registration

Access to the various qualifications follows a progressive logic. The CAP (EQF 3) is accessible after validation of the previous level. The BEP (EQF 4) is prepared after the CAP, with an entrance test if it was obtained in another institution. Finally, the Professional Baccalaureate (EQF 4) is accessible after the BEP, also with an entrance test if the qualification was obtained externally. The institution remains vigilant about certain courses: for example, the electrical engineering section of the CAP could be closed due to a lack of suitable classrooms.

- Tuition Fees

Costs vary depending on the level of training:

- CAP: 165,000 CFA francs (≈€252) for the entire cycle.
- BEP: 190,000 CFA francs (≈€290) for the first year and 215,000 CFA francs (≈€328) for the second year.
- Professional Baccalaureate: 230,000 CFA francs (≈350 euros) for the first year and 260,000 CFA francs (≈396 euros) for the second year.

Training grants are available for the most vulnerable learners, with priority given to young people from disadvantaged families.

- Duration of Schooling

The duration of training is three years for the CAP, two years (maximum three years with repetition) for the BEP, and two years for the Professional Bac. The specialisations offered include the CAP in electrical and electrotechnical installation, the BEP in electrotechnology and solar equipment installation, and the Bac Pro in electrotechnology, with a new specialisation in solar energy opened in 2025.



3. IFPTDB (Cameroon)

- Registration

Admission to IFPTDB is based on an assessment of the applicant's file, with entry requirements varying according to the course, ranging from CEP (Certificate of Primary Education, EQF level 1) to Probatoire (EQF level 3), and may also include young university students seeking retraining. Entrance tests are required to enter the training centre.

The institution encourages girls to participate in so-called male-dominated courses by offering them a 25% reduction in training fees.

Young people in vulnerable situations are supported by the administration through partnerships that have been set up.

- Tuition Fees

The fees amount to €200 per year for initial training. The school also offers continuing education courses for job seekers, active professionals or those undergoing retraining, who benefit from specific support measures.

- Duration of Schooling

The basic training in electricity, leading to the Diploma of Professional Qualification (DQP, EQF level 2), lasts 2 years.

B. Structure and Curriculum

1. EPS SJB (Benin)

At EPS SJB, several electrical engineering qualifications are offered: the CAP (EQF 3, 2 years), the Technician Diploma – DT (EQF 4, 3 years, accessible after the CAP) and the Professional Baccalaureate (EQF 4, 3 years).

At the same time, the school offers state diplomas such as the CQP (Professional Qualification Certificate), funded by the Ministry of Secondary, Technical and Vocational Education. This diploma, which is available to young people who have left school, combines training and exams, with specific requirements (overall average of 10/20, minimum of 12/20 in vocational subjects). Sessions depend on the state budget, which can delay examinations. The CQM (Professional Qualification Professions, 2 years) also exists but does not necessarily open the doors to university, unlike the baccalaureate.

In total, vocational education covers six fields: electronics, electrical engineering, civil engineering, IT and industrial maintenance (IMI), plumbing and electricity. The school does not use weighting coefficients in order to give equal value to all subjects. It is also considering introducing a solar energy course to meet local needs, particularly in rural areas.

Finally, EPS SJB emphasises educational and personal support through a correspondence notebook and a personalised tracking notebook, used for both learning and the personal and pastoral life of students. This digital and paper tool ensures a constant link between the administration, teachers, families and learners, and allows programmes to be adjusted according to identified needs.



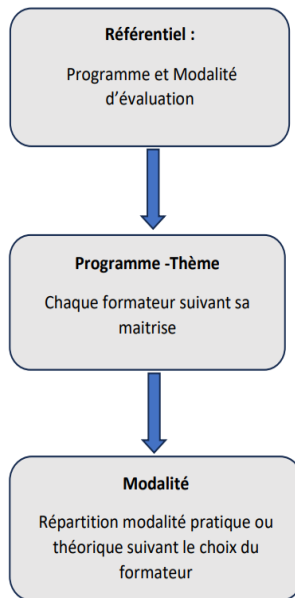


Figure 1: Diagram showing the steps for implementing the curriculum at EPS SJB

2. CFP Don Bosco (Burkina Faso)

The CFP Don Bosco offers three levels of education, in accordance with the standards set by the Ministry of Secondary Education and Vocational Training.

- The CAP (EQF 3), a three-year course, is open to holders of the CEPE or Level 5 qualification in the fields of Electrical Installation, Metal Construction and Electrical Engineering (under threat due to lack of space).
- The BEP (EQF 4), a two-year course (maximum three years), is available after a CAP or BEPC. It covers Industrial Maintenance, Metal Structures, Electrical Engineering and, since 2023-2024, Electricity and Solar Equipment Installation (EIES), making the centre a pioneer in renewable energies.
- The Professional Baccalaureate (EQF 4), a two-year course following a BEP, is offered in Electrical Engineering and is expected to be extended to solar energy in 2025. An internship report is compulsory (failing grade <10/20 results in exclusion). Grades <7/10 in professional subjects result in exclusion, and repeating the course twice results in expulsion.

In addition, the centre offers short courses (3 to 6 months) in IT and office administration, which are in high demand on the market.

The CQP exists in Burkina Faso but is not offered at the CFP Don Bosco. However, the government awards professional qualifications based on needs, particularly in photovoltaics.

Finally, the centre and its Salesian counterparts face a common challenge: integrating new courses (home automation, solar energy) despite the lack of equipment and standards. Training standards are developed based on the needs of businesses (equipment, skills, assessment).

The electrical engineering course remains a priority for the institution.



3. IFPTDB (Cameroon)

The IFPTDB offers several training courses in electricity and electrical engineering, tailored to market needs:

- Professional Qualification Diploma (DQP – EQF 2) in industrial electricity (2 years). Full-time training (36 hours/week, including 22 hours of practical training), incorporating modules on solar energy, home automation and entrepreneurship. The programmes are reviewed every 2 to 3 years and include support for business creation.
- Certificate of Professional Competence (CAP – EQF 3) in electricity (4 years). Accessible to those who have completed their Primary School Certificate, it covers the concepts of diagrams, machines, installations, transport and electricity distribution. Diploma awarded with an average grade of ≥ 10 .
- Baccalaureate F3 (EQF 4) in electrical engineering (7 years after primary school or 3 years after the CAP). Focused on projects, controls, machines and power electronics, also validated with an average grade of ≥ 10 .
- The IFPTDB also offers continuing education courses for job seekers, professionals and people undergoing retraining, designed according to market needs and supported by partners such as the AFD and companies. The most dynamic sectors at present are woodworking and IT, with plans to expand into other areas.

The skills acquired are officially recognised in Cameroon, although there is not yet a system for validating non-formal learning. Two trainers are dedicated to this mission.

The full-time courses (36 hours per week, including 22 hours of practical training and 7 hours of theory) are regularly updated every 2 to 3 years and include modules on solar energy, home automation and entrepreneurship, with support for business creation. Ultimately, the centre plans to set up work-study programmes.

C. Target

Countries	Minimum age for admission to training	Age range for specific degrees	Comments
Benin	14-15 years old	BEPC (EQF 2) required to enter 10th grade; CQP (EQF 3): ages 14-24	Initial training for teenagers; CQP (EQF 3) accessible to older young people
Burkina Faso	14-15 years old	CAP / BEP (EQF 3) : ages 14-24	Initial training for teenagers
Cameroon	15 years old	Adults can also take courses in electrical engineering.	Initial and continuing training available for adults

Table 6: Comparison of the targets according to the VET centre



D. Staff

For the three training centres, initial and continuing training is considered essential for trainers.

1. EPS SJB (Benin)

The training centre employs between 80 and 90 people, including administrative and teaching staff, ten of whom are trainers specialising in electricity. Qualified staff receive regular pedagogical and technical training in order to maintain a high level of competence and adapt practices to market needs. The teaching team consists of two main profiles:

- working professionals who teach during their holidays, bringing practical expertise from the field,
- young graduates who have completed their baccalaureate and been trained in teaching through a continuing education programme followed by an internship at the centre.

The institution attaches particular importance to adapting to technological developments. It is gradually integrating tools such as home automation and solar energy, although their deployment remains limited by a lack of equipment or official standards.

Lifelong learning is a priority in the educational programme:

- weekly activities between teachers of the same subject,
- quarterly meetings between public and private sector trainers,
- half-day thematic teaching sessions as needed,
- technical refresher sessions during the holidays.

These initiatives promote the updating of skills and help to maintain the quality and relevance of the education offered by the centre.

2. CFP Don Bosco (Burkina Faso)

The training centre has 10 electrical trainers. Teachers regularly receive technical skills training, particularly during the holidays.

The centre attaches great importance to adapting to technological and market developments, although the integration of new teaching tools (such as home automation and solar energy) is limited by a lack of equipment and official guidelines.

Several continuing education programmes have been put in place:

- Frequent technical skills training for teachers.
- Monitoring of technological and market developments to stay up to date.
- Sensitivity to the integration of new teaching tools despite material and reference limitations.

3. IFPTDB (Cameroon)

When recruiting, several criteria are considered, with teaching experience and the number of years of active professional experience in electricity being among the most important characteristics. In general, teachers are active professionals in the field they teach, and there is no minimum number of



years of practice required to teach. Currently, the administrative staff consists of 11 members: 4 women and 7 men. All of these members are permanent employees with employment contracts. In total the centre counts 85 teachers of which 10 in the field of electricity (2 women and 8 men).

E. Internship and Career Guidance and Integration Office

1. EPS SJB (Benin)

- The CQP (Professional Qualification Certificate, EQF level 3) diploma is organised as a work-study programme with three days at school and three days in a company in the electrical and plumbing sectors, with 10 students being trained by CQP. For this diploma, a three-month internship is compulsory in the second year, which can be extended to six months in the event of resits.
- No internship is required to prepare for the CAP, while the BEP requires a 2-month internship during the summer. For the vocational baccalaureate, the State requires a 2-month internship starting in February/March.
- For the Baccalaureate or DT, during these three years of study, students must complete compulsory internships. In general, this involves one month during the school holidays. Support for an assessed report is available but is not included in the certification.

The school has a Career Guidance and Integration Office (BOI) responsible for supporting students in their search for internships and professional integration. The BOI's objectives include:

- career guidance,
- career tracking,
- job preparation,
- socio-professional integration.

It plays a role in supporting students towards employment and entrepreneurship during their training, during internships and professional integration, as well as providing follow-up after training. The BOI helps to reduce academic failure and dropout rates, adapt training to market needs, improve professional integration and promote local development through employment or self-employment. In Benin, the BOI has a network of 16 partner companies, such as ATS and GENELEC, enabling students to apply for academic internships and company visits, and also offers training in business plan development for business creation.

2. CFP Don Bosco (Burkina Faso)

An internship period from February to March is carried out during the final year of secondary school, with the requirement to write an internship report and pass an assessment within the company in order to validate the diploma, as the internship is included in the final assessment. The internship process is highly structured thanks to the BOI and BSM software, which includes a form for tracking internship objectives. Once an agreement has been reached with the company, the student must register on the BSM database software. Internships take place in Bobo-Dioulasso and other cities in Burkina Faso, notably Ouagadougou, with an average duration of two months per internship.



The BOI supports around 250 learners on work placements in companies and industries. Like EPS SJB, CFP Don Bosco also has a BOI service with the same objectives and missions. The main missions of the BOI are to carry out field visits, explain the school's training courses, establish contacts and propose agreements. The BOI connects learners and companies for internships at the end of the first and second years of studies, consulting teachers on the skills to be developed, although few companies are interested in the training framework. The internship process is closely supervised by the BOI and via the BSM software, allowing for structured monitoring of the students' objectives and learning.

3. IFPTSB (Cameroon)

A three-month work placement, equivalent to 365 hours, is compulsory for all students. This placement is an essential part of the training programme, providing students with their first taste of the world of work in their first year of study. Each year, the centre organises between 1 and 50 placements, although no students are currently enrolled in work-study programmes.

The centre has no formal partnerships with public companies, but collaborates with several private companies. IFPTDB maintains a network of industrial and commercial partners that is still being developed, generally comprising between 1 and 20 companies. Each year, between 1 and 10 companies participate in the centre's activities or courses, and a similar number of workers or employers come to speak to students, without however being directly involved in teaching activities or projects. At the same time, between 1 and 10 companies regularly collaborate on work placements, trainer training and technical visits. Some partnerships can last more than ten years, and the centre receives 1 to 3 letters of intent or support each year. It does not yet run international partnerships or advanced training courses for workers. Like the other centres analysed, the IFPTDB has a BOI department, which is responsible for the same tasks and objectives.

F. Feedback from Learners

1. EPS SJB (Benin)

Regarding feedback from the learners, comprising seven boys and three girls (seven in their final year of vocational technical studies and three in vocational training), they expressed overall satisfaction with the internships while identifying several areas for improvement, including:

- A desire to extend the duration of the internships, ideally to 2 months instead of 1
- An increased need for practical skills: bleeding, mortar, engine assembly/disassembly, variable speed drive wiring, renewable energies
- Strengthening of business management and report writing modules
- A request for internships more in line with real-life professional situations

Learners also asked about the possibility of doing internships in Europe and the future integration of Artificial Intelligence into programs, highlighting their desire to be better prepared for technological and professional developments.



2. Burkina Faso

Feedback from students studying for a Professional Baccalaureate in electricity, mainly in their final years, shows that learners have already completed several work placements. Half of them have completed more than three placements, a quarter have completed three placements and a quarter have completed two placements, with an average duration of two months per placement. Many completed their internships in agri-food companies, working in equipment maintenance, mechanics, electricity and machine maintenance. Seven out of eight learners felt that they had received comprehensive preparation from the training centre before, during and after the internship, through an internship report, an interview with the BOI manager, training in how to behave in the workplace, technical training and company visits.

Combien de stage(s) avez-vous déjà réalisé lors de vos études au Centre de Formation Professionnelle Don Bosco de Bobo-Dioulasso ?

8 réponses

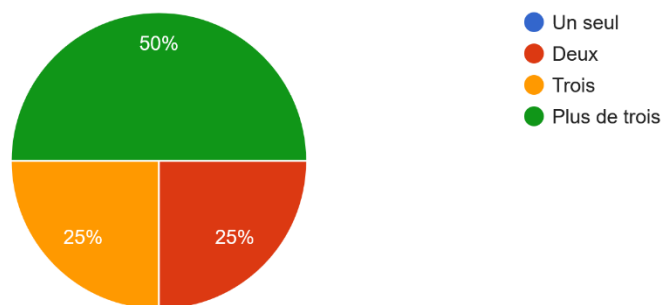


Figure 2: Feedback from learners regarding the number of work placements completed during their schooling at CFP Don Bosco

The main difficulties identified by learners include:

- The difference between theory and practice
- Working on site
- Travel
- Adapting to the company and the environment
- The stigmatisation of girls in this male-dominated profession, who are sometimes considered incapable of doing the same work as boys

The biggest differences observed during internships concern:

- Differences in equipment
- The practical application of theory, which is considered more difficult than expected, with practice sometimes lacking in depth
- The tools used
- Working under pressure, in a team, with attention to detail and precision

Approximately 75% of learners report having been assessed for their internship. The impacts of this experience include discovering the professional world, strengthening technical and professional skills such as technical knowledge, self-confidence and team spirit, rigorous work and improvement, as well as a better understanding of the electrical and electronic field.



Avez-vous été évalué par votre centre de formation professionnelle pendant ou après votre période de stage ?

8 réponses

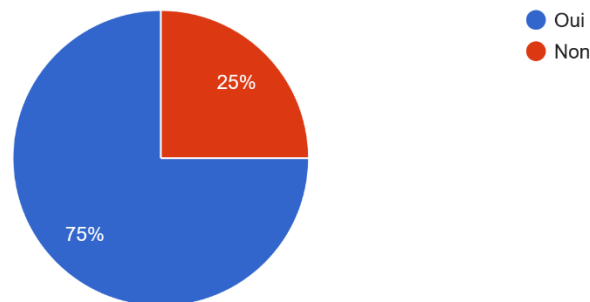


Figure 3: Learners' responses regarding their assessment during or after their internship period

3. IFTPTDB (Cameroon)

Of the 26 learners sent on placements, the participation and involvement of the trainees was deemed satisfactory overall. The eight-week duration of the placement allowed for good integration into the companies and a valuable professional immersion experience. However, a few areas for improvement were identified, including:

- Increasing the number of hours devoted to practical work;
- The acquisition of equipment kits before the start of the internship in order to promote greater autonomy and efficiency in the field.

On a technical level, the need to focus training more on solar and renewable energies, to reproduce real working conditions in companies at the centre and to encourage visits to construction sites in order to familiarise learners with the realities of the profession was highlighted.

The monitoring of internships was deemed satisfactory, thanks to regular communication between the host organisations and the training centre, provided in particular by the Career Guidance and Integration Office (BOI) and the Director of the centre.

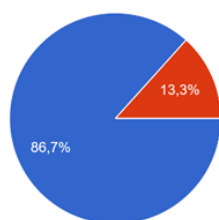
G. Market Needs

Following meetings with companies and the questionnaires they completed, several common trends and differences emerged in the three countries.

Employers all emphasise a marked need for practical and theoretical skills, as well as digital skills and personal skills (interpersonal skills, soft skills).

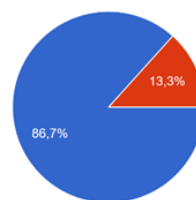


Êtes-vous satisfait des compétences des diplômés ?
15 réponses



Les diplômés ont-ils besoin d'une formation professionnelle complémentaire avant de commencer à travailler ?
15 réponses

● Oui
● Non



● Oui
● Non

Figure 4: Responses from companies regarding the skills of graduates and whether graduates require additional training

86.7% of companies surveyed in the three countries are satisfied with the skills of graduates, however, the same percentage believe that graduates also need additional vocational training before starting work.

In Benin, companies specialising in electricity, electrical energy and solar energy are experiencing difficulties in automation, energy management and consumption, as well as in trades related to the installation of power plants and solar kits or solar streetlights. Only 20% of companies report difficulties in recruiting suitable candidates, 40% consider the skills of graduates to be unsatisfactory, and 80% believe that additional training in applied electricity is necessary before hiring.

In Burkina Faso, companies working in the electricity sector generally consider their equipment to be satisfactory and do not report any major difficulties in recruiting staff. Graduates are considered competent, but need to strengthen their practical skills in electricity, as well as their digital and personal skills. The emphasis is less on the need for specific technical training and more on the need to improve and update skills in order to keep pace with developments in the sector.

In Cameroon, companies report recurring difficulties in finding qualified candidates in general electricity, industrial maintenance, power line maintenance and security systems. In addition, they mention a deficit in the use of programming and design software applied to electricity, as well as in the mastery of new technologies. Companies also highlight the absence in training of modules related to customer relationship management, the creation/takeover of electrical businesses and economic performance analysis, which are important elements in supporting the sector's evolution towards more comprehensive and entrepreneurial professions. Here, 75% of companies report difficulties in recruiting.

In all three countries, the lack of professional experience remains a major obstacle for all businesses. However, specific needs also differ: in Benin, they mainly concern skills related to solar energy (installation of solar kits, solar power plants, solar streetlights); in Burkina Faso, they concern digital skills; and in Cameroon, they concern new technologies, the use of programming and design software, and general electricity.



H. Relationship with Companies

In all three countries, collaboration between vocational training centres and businesses is well established, mainly through work placements that enable learners to acquire electrical skills in real-life conditions and enhance their employability. However, the intensity and modalities of this collaboration differ.

In all three countries, collaborations have been in place for a relatively long time (from 1 to more than 10 years), with strong involvement in educational activities (visits, practical activities, trainer training) and a significant number of internships (up to 40 per year in Burkina Faso, 5 to 25 in Cameroon and between 3 and 20 in Benin).

In Benin and Cameroon, all companies also collaborate, but direct involvement in programme development is lower (20%), even though all participate in educational activities through internships, visits or testimonials. Benin also stands out for its structured organisation of post-internship meetings, where companies, teachers and sometimes parents discuss market developments and the skills that need to be strengthened, with some teachers also working in companies, enabling them to adjust their courses.

Expectations differ from country to country:

- In Benin, companies are calling for subsidies for electrical equipment, tax breaks and better integration of internships into curricula.
- In Cameroon, they are calling for more direct financial support for employers, centres and start-ups, as well as greater emphasis on direct exchanges with students on practices in the electrical sector.
- In Burkina Faso, priority is given to raising awareness and facilitating partnerships, with government support to consolidate networks between stakeholders.

I. Challenges for Employers

Employers in all three countries face similar challenges when recruiting: the lack of experience among young graduates, insufficient soft skills, and the additional costs associated with training them in the workplace. These constraints are relatively minor in Burkina Faso, more significant in Benin, and particularly severe in Cameroon, where the difficulty in finding qualified candidates is most acute. The turnover of young staff is also reported as a constraint in Benin and Cameroon, affecting the stability of the workforce.

In terms of relations with training centres, companies everywhere recognise the value of partnerships but feel that they could be strengthened. In Benin, employers want to be more involved in the co-construction of programmes in order to better respond to market developments. In Burkina Faso, relations are positive but could be consolidated. In Cameroon, expectations focus primarily on financial and logistical support to modernise equipment, facilitate the intake of trainees and align training with the new requirements of the electricity sector.



Thus, despite well-established cooperation, employers stress the need to bridge the gap between training and the labour market, in particular through better integration of businesses in the design of training programmes, greater focus on transferable skills and increased support from the State to ease the constraints on recruiters.

J. Skills Requirements

The summary table identifies skills requirements based on feedback from companies in the three target countries.

Skill category	Benin	Burkina Faso	Cameroon
Techniques	Automation, energy management/consumption, solar installations (kits, street lamps, power stations)	Practical improvement in electricity, updating of knowledge	General electricity, industrial maintenance, power lines, security systems, specialised software, new technologies
Digital	Need identified but not detailed	Reinforcement desired	Programming, electrical engineering design, advanced digital technologies
Transversal skills / Interpersonal skills	Interpersonal skills, soft skills	Interpersonal skills, soft skills	Customer relations, entrepreneurship, economic analysis, management
Professional experience	Moderate impact (20% of companies affected)	Low impact	Critical issue (75% of companies affected)

Table 7: Identification of skills requirements based on feedback from companies in the three target countries

K. Gender Ratio

Countries	Total no. of learners	No. of girls	% of girls	Gender policy and specific measures	No. of female teachers/trainers
Benin	717	110	15 %	20% reduction in school fees for girls, personalised support and involvement in decision-making, gender policy to make life easier for girls.	11 female teachers (out of 82), including 2 electrical engineering teachers.
Burkina Faso	750	98	13 %	Granting of full scholarships to learners from vulnerable families, especially girls.	10 female teachers in the electrical engineering department.
Cameroon	N/A	0	0 %	Scholarships for girls, priority given to women when recruiting trainers, 25% discounts for girls, but no girls enrolled in electrical engineering for 2024–2025.	10 Electricity teachers, including 2 women and 8 men.

Table 8: Comparison of gender ration in the 3 VET Centres



L. Salaries and Working Conditions

1. EPS SJB (Benin)

Regarding working conditions in the electrical industry for high school graduates, working hours are generally standard at 8 hours per day, depending on the company. Some companies may require hours between 6 a.m. and 8 a.m., while others may require night work depending on the activity, with days off. For a baccalaureate in electrical engineering, the state salary, notably via the state platform and subsidy system for the employment of young employees, exceeds 150,000 CFA francs (equivalent to €120). In the private sector, salaries can range from 60,000 to 80,000 CFA francs (between €92 and €121) per month, depending on the size of the company and the sector.

2. CFP Don Bosco (Burkina Faso)

In Burkina Faso, salaries vary according to experience, level of qualification, and responsibilities. In the electricity and electrical engineering sector, monthly remuneration, including bonuses, generally ranges from 128,485 CFA francs (approximately €195.81) for the lowest-paid positions to 452,343 CFA francs (approximately €689.37) for the highest-paid positions, although some salaries may exceed this ceiling.

In terms of working conditions, the electrical trade requires rigor, precision, and concentration. Workdays are often busy, punctuated by scheduled interventions depending on the progress of construction sites. The work is carried out both indoors and outdoors, sometimes in confined spaces or at heights. Hours may vary depending on emergencies, repairs, or technical constraints, and meeting deadlines, safety, and quality are constant priorities. In addition to these hours, overtime is often required. For those who are self-employed, there are generally no set hours.

3. IFPTDB (Cameroon)

Working conditions in Cameroon are governed by the Labour Code for the private, which stipulates that:

- An employee in the industrial sector (e.g., electricity) is entitled to a 40-hour work week, or 8 hours per day. Any hours worked in excess of this are considered overtime.
- Employees are recruited by category and according to their highest academic qualification. Thus, a young person with a high school diploma must be classified in the 8th category. Those with a DQP (Professional Qualification Diploma) (EQF level 3 to 5) are classified in the 6th category. Salaries depend on the geographical location of the company, including the local standard of living, the company's sector of activity, and the position held. Salaries can therefore vary from 80,000 CFA francs (approximately €121.92) to 150,000 CFA francs (€228.6) in the private sector. In the civil service, workers are subject to civil service regulations.



M. Perspectives and Opportunities

1. EPS SJB (Benin)

Currently, state training and curricula do not reflect renewable energies. However, the center includes concepts related to photovoltaic energy so that learners have some basic knowledge. But trends show that the focus will be on this sector in the future, particularly with new government reforms underway. While waiting for these changes, trainers are trying to provide training on the installation of solar panels, but only on an occasional and punctual basis due to the absence of this topic from the program. According to the centre and the electrical engineering teachers, photovoltaics is a sector with a promising future that will develop in the coming years, as will energy management in businesses and also in homes, with automation, particularly due to the country's energy fluctuations and instability. The electrical engineering sector should also be linked to other areas of training, such as air conditioning, IT for drawing up plans and designs, camera installation, etc., in order to give learners greater versatility and a wider choice on the job market.

2. CFP Don Bosco (Burkina Faso)

Once they have completed their training and obtained their diploma or certificate, learners enter the labour market. However, in Burkina Faso, as in most countries in the region, unemployment remains high, which means that there is no guarantee of immediate employment upon completion of training, as supply remains lower than demand.

Despite this context, some graduates manage to enter the workforce, either through salaried employment or self-employment. The majority work as construction electricians, equipment electricians, industrial maintenance technicians, or choose to specialize in innovative fields such as home automation or renewable energy.

The sector's current needs mainly focus on introducing home automation, in order to better prepare future professionals for technological developments and market requirements.

3. Cameroon

In Cameroon, electrical engineering graduates are gradually entering the job market, often after completing an advanced training or pre-employment internship at the companies where they did their academic internships. This initial experience allows them to acquire practical skills before joining larger companies in the energy or industrial sector.

Many works in electrical installation and maintenance companies, on construction sites, in industry, or in energy companies. Others turn to self-employment, setting up their own businesses or working as independent contractors for private individuals. The most common occupations are equipment electrician, electrical engineering technician, and solar system installer.

With the development of home automation, renewable energies, and smart grids, job prospects in this field remain favourable, particularly for young graduates who are able to combine technical skills with adaptability to technological innovations.



VI. SWOT Analysis

A. EPS SJB (*Benin*)

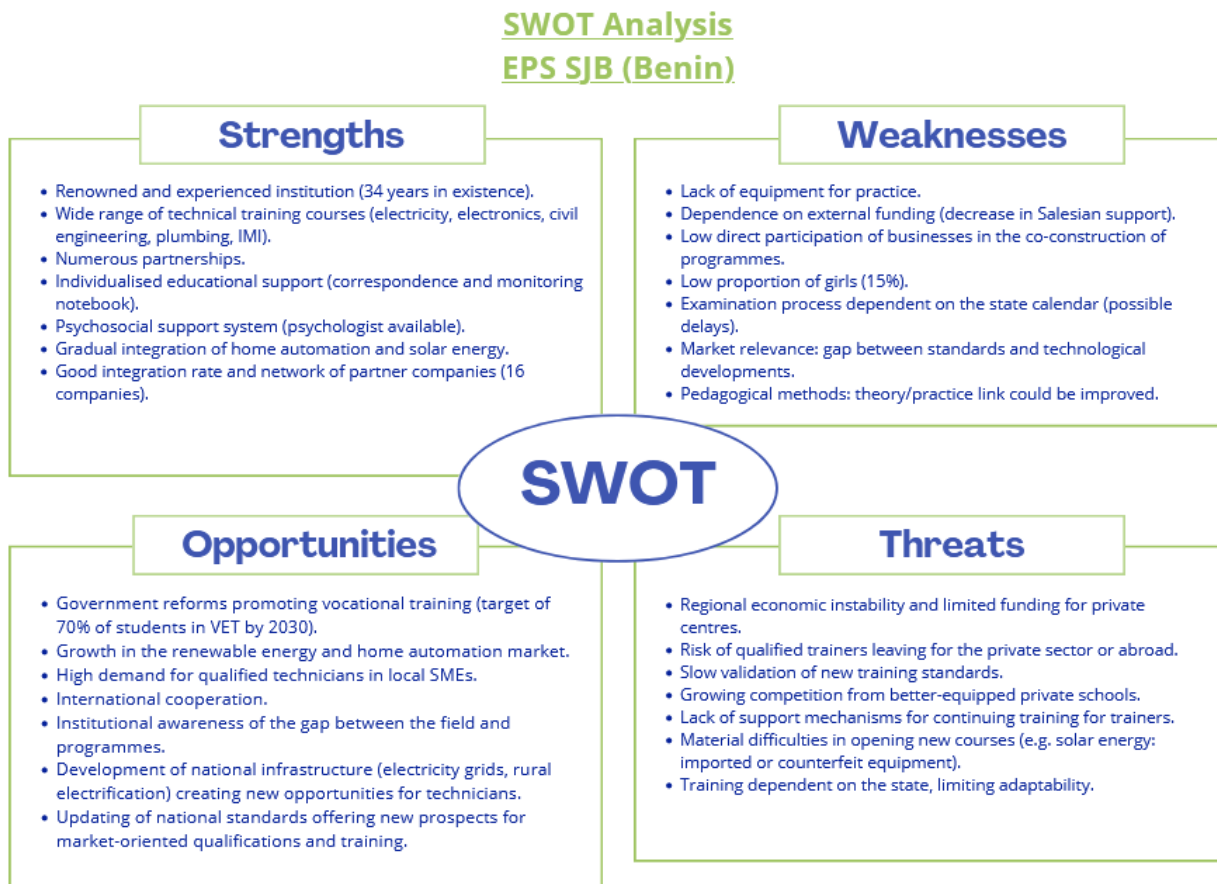


Figure 5: SWOT analysis of the EPS SJB VET centre in Benin

B. CFP Don Bosco (*Burkina Faso*)



SWOT Analysis CFP Don Bosco (Burkina Faso)



Figure 6: SWOT analysis of the CFP Don Bosco VET centre in Burkina Faso



C. IFPTDB (Cameroon)

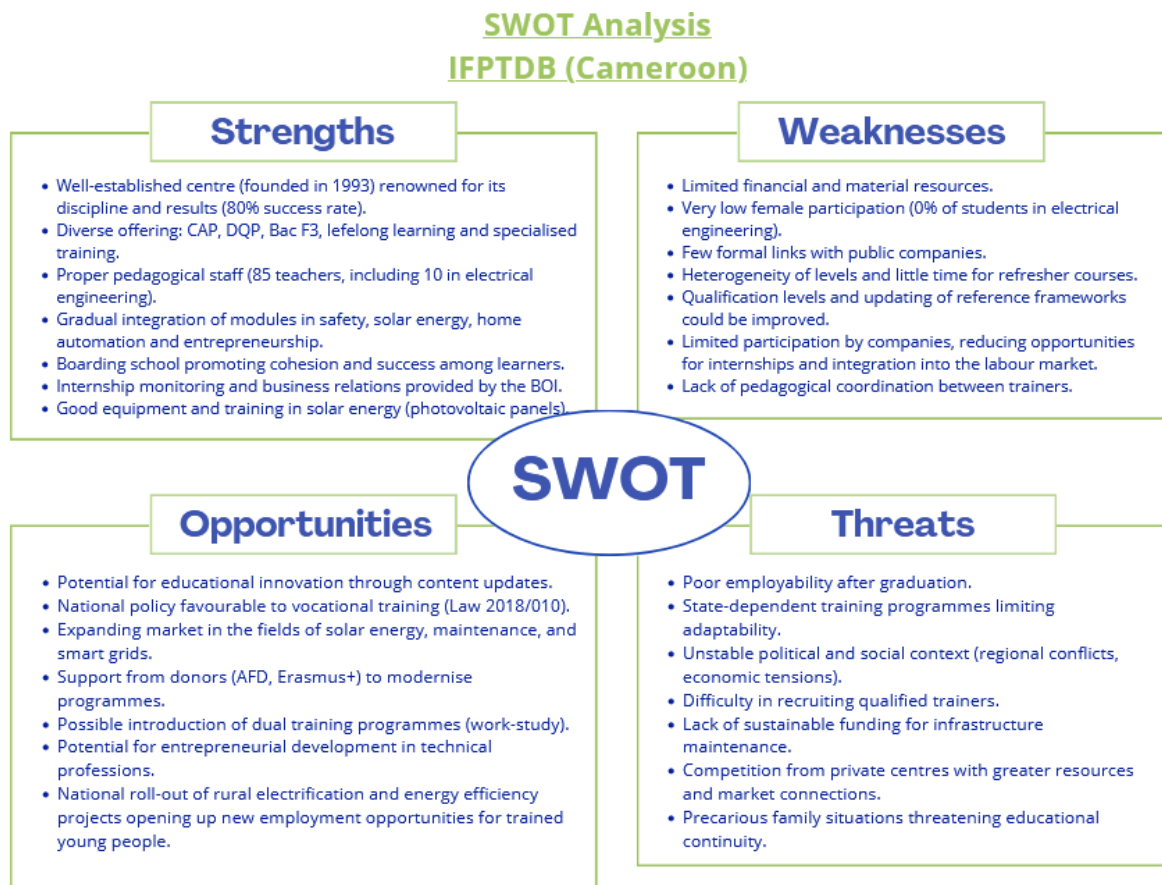


Figure 7: SWOT analysis of the IFPDTB VET centre in Cameroon

VII. Conclusions and Recommendations

A. Pedagogical Recommendations

Pedagogical methods and approaches

- Move from a lecture-based teaching style to an active, practical approach.
- Encourage project-based learning, a skills-based approach and hands-on experimentation.
- Integrate work placements into the curriculum.
- Set up educational workshops and projects covering distribution, energy management, safety and automation.

Skills and cross-disciplinary approach

- Strengthen cross-disciplinary skills: electricity, plumbing, solar energy, home automation
- Structure modules for an integrated approach tailored to market needs
- Integrate modules related to energy management and consumption, electricity production and sustainable



Partnerships and companies' involvement

- Further structure school-companies' partnerships
- Encourage companies to share their strategies and specific needs according to the local economy
- Emphasise the link between internships and employment, with longer internships and better preparation/equipment for students
- Organise joint training programmes for trainers and internship supervisors: courses, workshops and seminars on teaching skills, innovative methodologies and mentoring

Recognition of skills

- Explore the system for recognising non-formal/informal skills (inspired by the Italian model) to promote learners' practical experience
- Integrate this recognition into educational pathways and assessments

Teacher training and continuous improvement

- Support teachers in adapting teaching methods
- Strengthen trainer training: initial, pedagogical, didactic and continuous
- Establish an evaluation and feedback system to adjust teaching methods and training content

B. Technical Recommendations

Energy management and sustainable development

- Provide training on energy distribution and energy management/consumption for the three countries.
- Link energy management to automation and electrical systems.
- Adapt the skills-based approach to each country's reference framework, with the 'distribution' box remaining systematic.
- Take into account each country's specific electricity production to contextualise the training.

Alarm systems and low voltage systems (Benin and Burkina Faso)

- Lack of alarm systems in centres: intercom, fire alarm, intrusion alarm
- Possibility of integrating these modules to strengthen learners' practical skills

Safety

- Provide training on electrical safety and the risks associated with electricity
- Link safety to automation and energy management

Automation

- Included in standards but currently little used
- Enables energy and security management
- Related to sustainable development and energy efficiency

Industry and professional integration

- Maintain focus on project objectives: skills development and facilitated integration of learners



- Ensure that the deployment of curricula corresponds to the needs of businesses rather than the perceived needs of the country
- Training of trainers recommended to adapt modules to the real needs of the market

Pedagogical construction site

- Set up practical projects incorporating distribution, energy management, safety and automation
- Encourage the direct application of skills on educational construction sites to prepare for professional integration

C. Suggested Topics and Modules

Based on the information provided in this report, several areas of focus are being considered for the design of training modules:

- Pedagogy and teaching methods: promoting greater cohesion and harmonisation among trainers.
- Safety: an essential topic in all contexts, whether industrial or domestic, and one that must be integrated into practice regardless of the setting.
- Energy management.
- Solar or photovoltaic kits.
- Enhanced automation.

Key points to consider for modules and resources

- Modules must remain aligned with the reference framework.
- Take into account the resources required for each topic: equipment, market, companies ready to recruit, economic resources available to families or the institution.
- Example of photovoltaics: integrate management, installation, maintenance and adaptation to local needs.
- Set up two modules that can be used immediately and plan for an additional module to be introduced later.
- Ensure that modules are developed to complement existing programmes.

D. Conclusion

This report has provided a comprehensive analysis of the vocational education and training (VET) landscape in the electricity sector in Benin, Burkina Faso, and Cameroon. The findings highlight both the progress achieved in aligning national VET systems with labour market needs and the continuing challenges that limit their full effectiveness.

Despite notable reforms and institutional efforts, the analysis reveals persistent gaps in the adequacy of training equipment, the integration of renewable energy and digital technologies, and the pedagogical capacity of trainers. Strengthening collaboration between training institutions, companies, and public authorities remains essential to ensure greater coherence between training provision and the evolving demands of the electricity sector.



The recommendations formulated in this report aim to guide the design of innovative, inclusive, and market-oriented training modules. By reinforcing technical and transversal competences, promoting work-based learning, and embedding sustainability and digitalisation into curricula, the project will contribute to the modernization of VET and the long-term employability of learners in the target countries.



Annexes

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