



African, Caribbean and Pacific Group of States

“AFSEC – Harmonization of Electrotechnical Standards in Africa”

“ACP-EU TBT PROGRAMME” (REG/FED/022-667)

Project code 089-16

FINAL TECHNICAL REPORT

25th January 2017

Project implemented by



In consortium with



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ABBREVIATIONS AND ACRONYMS

ACP	Africa, Caribbean, Pacific
AFRAC	African Accreditation Cooperation
AFRIMET	Africa Metrology system
AFSEC	African Electrotechnical Standardisation Commission
ARSO	African Regional Organization for Standardization
ASEAN	Association of Southeast Asian Nations
ASTM	American Society for Testing and Materials
BIPM	Bureau International de Poids et Mesures
CAB	Conformity Assessment Body
COMESA	Common Market for Eastern and Southern Africa
EAAB	East African Accreditation Board
EAC	East African Community
ECOWAS	Economic Community of West African States
EMC	ElectroMagnetic Compatibility
IAF	International Accreditation Forum
IEC	International Electrotechnical Commission
ILAC	International Laboratory Accreditation Cooperation
ISO	International Organization for Standardization
ITU	International Telecommunication Union
NEC	National Electrotechnical Committee
NGO	Non-Governmental Organization
NQI	National Quality Infrastructure
OIML	Organisation Internationale de Métrologie Légale
PAQI	Pan-African Quality Infrastructure
NSB	National Standards Body
NMI	National Metrology Institute
SME/SMI	Small and Medium Enterprises/Industries
SOAC	West African Accreditation System
SOAMET	West African Secretariat for Metrology
TC	Technical Committee
UNIDO	United Nations Industrial Development Organization
TBT	Technical Barriers to Trade
WAQP	West Africa Quality Programme
WTO	World Trade Organization

ACKNOWLEDGEMENT

The Consortium in charge of the project have added a Non Key Expert n° 3 to the initially chosen the Experts' Team, after discussion with the TBT Programme manager. After a careful review of the Terms of Reference, the Experts' Team concluded that an IT expert should join the team of experts in order to design an structure the AFSEC Database on electrotechnical standards successfully. Therefore, the Experts' Team is composed of 5 members:

-) Key Expert 1 (KE1) and Team Leader – in charge of the standardization aspects of the project - Marie-Christine RADONDE,
-) KE2 in charge of the conformity assessment and Laboratories – Ivan HENDRIKX,
-) Three Non Key (NKE) experts:
 - o Mr. Vicente ROMERO - NKE1–Task 1 and Task 3, in support to the Standardization aspects,
 - o Mr. Rogelio GARRIDO- NKE2 – Task 2 and Task 3, in support to the Conformity Assessment aspects,
 - o Mr. Bernardo FANJUL - NKE3– Task 1 and Task 3 in support to the IT Activities.
-) The main stakeholder of the project was the secretariat of the African Electrotechnical Standardization Commission (AFSEC). AFSEC Members and Affiliates, who are the Electrotechnical National Committees of 13 countries to date, were also the stakeholders of this project.

Members of AFSEC are:

NEC (Cote d'Ivoire National Electrotechnical Committee)	NEC (Ghana National Electrotechnical Committee)	National Committee of Nigeria	Sudan National Electrotechnical Committee
NEC (DRC National Electrotechnical Committee)	National Committee of Kenya	NEC (Rwanda National Electrotechnical Committee)	NEC (Zambia National Electrotechnical Committee)
National Committee of Egypt	NEC (Namibia National Electrotechnical Committee)	National Committee of South Africa	

The countries affiliated to AFSEC are:

National Committee of Libya

NEC (Senegal National Electrotechnical Committee)

EXECUTIVE SUMMARY

In the field of electricity, electronics and related technologies, the African Electrotechnical Standardization Commission (AFSEC) is responsible for:

-) Identification of existing standards and prioritization of standard's needs,
-) Harmonizing existing standards, through either the adoption of international standards; or where necessary their adaptation to African conditions,
-) Where there is a need, identifying draft standards to be developed by the members of AFSEC for adoption, and
-) Recommending harmonized standards for application by the appropriate bodies of the African Union.

The overall objective of the project is to increase the capacity of African electrotechnical industry to implement common standards in support of increasing access to and use of electricity throughout Africa.

The purpose of the project is to support AFSEC in identifying priorities for harmonisation efforts for electrotechnical standards, ensuring synergy with African Regional Economic Communities Programmes. It also supports AFSEC in identifying the extent to which conformity to standards can be assessed in Africa, by conducting an assessment of electrotechnical testing capacities within African countries and overcome the technical barriers among African countries as related to compliance to standards.

In order to reach this goal, Project **089-16 AFSEC – Harmonisation of Electrotechnical Standards in Africa** envisaged that:

-) A database of Electrotechnical Standards is prepared and validated by the AFSEC Members during the Final Validation Workshop.
-) Information is collected and assessment is made in relation to capacities of the Electrotechnical Laboratories (or other facilities) potentially or actually qualified to be accredited to test electrical products.
-) Priorities and action plans of AFSEC in relation to its future programme of work are identified and validated during the Final Validation Workshop (taking place in Kenya, Nairobi).

In a period of four (4) months, including the inception period, the team of experts was in position to provide the first version of the database to the beneficiaries of the project.

Three (3) meetings took place:

-) Pretoria – 21st – 22nd November 2016,
-) Brussels – 16th December 2016,
-) Nairobi – 10th-11th January 2017.

The project had a definitive closing date on 29th January 2017.

The project which officially started on 4th October 2016 (contract was signed on 29th September 2016), via Skype conference between the TBT Programme Project Management Unit, the Consortium Backstopping Unit and the Key experts. During the whole implementation period, a large number of Skype conferences took place between the team of experts and the Consortium Backstopping Unit in charge of the project, between the team of experts and the beneficiary (AFSEC Secretariat), and between the team of experts, Consortium Backstopping Unit and the representative of the TBT Programme Ms. Irina Kireeva.

In Pretoria, Key Experts 1 and 2 met the Executive Secretary of AFSEC in order to present him the first framework of the AFSEC database on electrotechnical standards and to exchange on the project's Terms of Reference and the results to be obtained. In addition, they also had a meeting with the former Chairman of AFRAC with whom they had an exchange of views on what should be introduced in the database regarding the competence of AFSEC member states Laboratories.

In Brussels, the Key Experts met the representative of the TBT Programme Ms. Irina Kireeva in order to show her the first model of the database, to seek her advice for resolving the difficulties encountered and for preparing the Nairobi Final Validation Workshop.

The Final Validation Workshop held in Nairobi (Kenya) was attended by representatives of most of AFSEC's Members and its Affiliates and with the participation of representatives from several organizations partners such as ARSO and AFREC.

Regarding the results obtained and presented during the final validation workshop:

- **Result 1** – Database of Electrotechnical Standards is prepared and validated by the AFSEC Members during the Final Validation Workshop:
 - o The database was designed and prepared for its final use by AFSEC and its members,
 - o The validation of the database was done on 11th January 2017 during a hands-on training.
- **Result 2** – Information collected and assessment is made in relation to capacities of Electrotechnical Laboratories (or other facilities) potentially or actually qualified to be accredited to test electrical products
 - o This result was not fully achieved because of the reasons explained in point 1. Background of the present report.
- **Result 3** – Priorities and action plans of AFSEC in relation to its future programme of work are identified and validated during the Final Validation Workshop (taking place in Kenya, Nairobi).

The following actions were proposed and validated in Nairobi:

- o Year 2017 is established as the African Year of Quality Infrastructure. The Nairobi

Workshop could be considered as the first event of the African Year of Quality Infrastructure.

- Each AFSEC TC should be assisted in the preparation of guides on use of the standards under their responsibility. AFSEC should determine who could assist these TC.
- Such guides could be used as a support in an e-learning program to be structured.
- AFSEC should start discussion with its partners in PAQI (ARSO, AFRAC, and AFRIMET) regarding how to expand the database to areas other than electrotechnical standards.
- Regarding laboratories, a technical assistance with the participation of AFRAC should envisage assistance to a number of laboratories for their accreditation.

1 BACKGROUND

The African Electrotechnical Standardization Commission (AFSEC) was created in February 2008 as a result of a collaborative effort among stakeholders since 2005, and underpinned by a declaration of the Conference of African Ministers of Energy held in Algiers on 17 February 2008. 11 African countries are statutory members of AFSEC; Libya, Senegal and 5 regional African organizations are affiliate members.

In the field of electricity, electronics and related technologies, the African Electrotechnical Standardization Commission (AFSEC) is responsible for:

-) Identification of existing standards and prioritization of standard's needs,
-) Harmonizing existing standards, through either the adoption of international standards; or where necessary their adaptation to African conditions,
-) Where there is a need, identifying draft standards to be developed by the members of AFSEC for adoption, and
-) Recommending harmonized standards for application by the appropriate bodies of the African Union.

The overall objective of the project is to increase the capacity of African electrotechnical industry to implement common standards in support of increasing access to and use of electricity throughout Africa and to find any data related to the use of the international standards in any AFSEC Country.

The purpose of the project is to support AFSEC in identifying priorities for harmonisation efforts for electrotechnical standards, ensuring synergy with African Regional Economic Communities Programmes. It also supports AFSEC in identifying the extent to which conformity to standards can be assessed in Africa, by conducting an assessment of electrotechnical testing capacities within African countries and overcome the technical barriers among African countries as related to compliance to standards.

In order to reach this goal, Project **089-16 AFSEC – Harmonisation of Electrotechnical Standards in Africa** envisaged that:

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- J Priorities and action plans of AFSEC in relation to its future programme of work are identified and validated during the Final Validation Workshop (taking place in Kenya, Nairobi).

Our comments on the ToR related mainly to the short time available for the project implementation (less than 4 months) and the quite demanding results we had to achieve, which were influenced by some late responses and some non-responses from the NECs of the different countries and laboratory entities. In addition, the implementation of the project took place during the Christmas and New Year's Eve period, which is also the summer holiday period for most African countries. [Note: future projects should take cognizance of this, where information needs to be collected.]

Given the short time available for project implementation since the official start of the project (an audio-conference organized on 4th October 2016), the experts and the representative of the beneficiaries (Mr Paul Johnson –AFSEC) had been in regular contact via Skype.

This channel of communication was the one privileged by the consortium for sake of efficiency and budget control. Many audioconferences took place with the participation either of the PMU representative, Consortium's backstopping staff, Expert's Team members and AFSEC, or between Consortium's backstopping staff and Expert's Team members, in particular KE1 and NKE3 for the design and structuring of the database.

The activities undertaken during the inception period (4th October to 10th November 2016) were described in the Inception Report. They focused in designing the workplan and distributing tasks and responsibilities among Experts' Team members (technical and administrative details) and on the organisation of the Final Validation Workshop, which took place on 10th and 11th January 2017 in Nairobi (Kenya).

Until the Final Validation Workshop date, the Experts' Team worked at fulfilling the project's Terms of Reference.

- Regarding Result 1 – Database of Electrotechnical Standards is prepared and validated by the AFSEC Members during the Final Validation Workshop.

During the first discussions, the Key Experts considered and proposed that instead of two NKE, three should be nominated, one of them being an IT specialist (NKE3), who will support the development of the database. This was formally accepted by the PMU.

As already stated, the beneficiary of this project is mainly AFSEC itself (its secretariat), who will be able to use the database for evaluating AFSEC's State members use of the standards. On this basis, AFSEC will have clear views on how to use common electrotechnical standards. AFSEC's State Members are also beneficiaries of this database, as it will allow them to obtain updated information concerning each State Member situation regarding the adoption of AFSEC's recommended standards. It will also allow for evaluating the situation of the national electrotechnical standardization in each State Member and other affiliate States.

In addition, this database is also a tool for public stakeholders (industries, universities, laboratories, consumers associations etc) to identify the National Electrotechnical Committees in AFSEC's State Members, to find standards in force in each country, to take note of the status of the standards (Voluntary – compulsory) and to be informed about the existence of accredited laboratories in each country.

- **Regarding Result 2 – Information collected and assessment is made in relation to capacities of the Electrotechnical Laboratories (or other facilities) potentially or actually qualified to be accredited to test electrical products**

Obtaining a detailed information about capacities and needs of laboratories based on home-based research was not feasible due to impossibility to visit those laboratories to check the correctness of the questionnaire and the real implementation of the lab facilities (test equipment, their Quality Management practices, their business plan, etc). This situation prevented to get a fair idea of the sustainability and seriousness of the business plan of the laboratory and to provide an evidence-based advice on which laboratories are eligible for supporting to get accreditation.

We feel also that decisions of eligibility of support to get accreditation for potential laboratories (or other CABs) are needed to be taken at a higher level e.g. at the level of entities who are working to develop a quality infrastructure system in the country (e.g. the national QI Council or similar).

In relation to the ToRs, page 13, it is stated that:

“8.1 Definition of indicators

Project performance will be measured against the indicators presented in the logical framework annexed to the technical proposal, it is however intended that during the inception phase the Logframe will be discussed with the beneficiary and amended if deemed necessary

The following indicators have already been identified as key elements of project success:

Overall Objective Level

-) *Ability of AFSEC Members to use the Database of Electrotechnical standards (questionnaire).*
-) *Private sector operators, participate more actively in the development of the Electrotechnical standards.*
-) *Level of satisfaction of AFSEC Members (questionnaire).*
-) *Number of collected and harmonized Electrotechnical standards.*
-) *Number of African Electrotechnical Laboratories or other facilities assessed.*
-) *Validation of the results of the project at the Final Workshop.”*

The Experts' Team considered that to use “Private sector operators, participate more actively in the development of the electrotechnical standard. “, as an indicator was not feasible as, given the short

duration of the project, influencing a number of private sector operators in the electrotechnical standards field was unrealistic. Experts' Team concluded this was rather a long term objective (e.g. 5 to 10 years) which cannot be measured in a time span of 4 months.

In the same chapter, appears also an indication of results:

Results Level

-) *Database made available on time to all AFSEC Members;*
-) *Database coverage is at least of all fully AFSEC members and of all African sub-regions;*
-) *Nr. of Electrotechnical laboratories assessed in relation their capacities to test electrical products;*
-) *Nr. of Electrotechnical Laboratories qualified to be accredited;*
-) *Electrotechnical Laboratories level of satisfaction of their assessments;*
-) *Nr. of action plans of AFSEC validated by all active Members;*
-) *Nr. of action plans for capacity building with related needed budget;*
-) *Nr. of action plans for capacity building with results indicators and agreed targets.*

Database coverage (bullet point 2 above) is feasible for AFSEC members but not for “all African sub-regions’, as African Sub-regions (ECOWAS, COMECA, ..) have their own Quality Infrastructure development strategy so it would be very difficult if not impossible to agree on a common database on electrotechnical standards as well on priority setting during the short period of this ACP TBT project.

2 ACTIVITIES CARRIED OUT

The activities were developed according to the timetable given in Annex 5.

They were focused on:

a) The development of the database (result n°1) in discussions among KE1, NKE1 and NKE3, according to each one’s competence. KE1 was a specialist in use of standardization databases in International and national standardization organization and could indicate how a user should use the database, depending on his/her responsibilities assigned. Her directives were immediately translated by NKE3 in terms of IT development.

In order to be useful, a database needs to be fed with data. These data could only be given by the AFSEC Members. NKE1 was the “go between” the Experts’ Team and the AFSEC Members in order to the latter provide data regarding national electrotechnical standards and their relation with the international or regional ones.

In order to AFSEC Members to give data liable enough to be easily migrated into the database, they were given a template to be filled in. **see fig 1**

	Number of the National Standard	title of NS	link to the [i]origin standard	Date of publication	Number of the edition of the standard	National ITC	origine reference of the document[ii]	origine organization	situation[iii]	Status of the national standard[iv]	language[v]
Example	SABS IEC 60335-1[vi]	Household and similar electrical appliances - Safety Part 1: General requirements	IEC 60335-1 https://webstore.iec.ch/p-preview/info_iec60335-1%7Bed4.1%7Dfr_d.pdf	2015	3	72	International	IEC	Identical	voluntary	English

[i] [Link to the database of the original standard \(example : link to the IEC standard or EN or ETSI ...\)](#) will also give the abstract of the standard

[ii] [International, regional, homegrown](#)

[iii] [Identical to the original standard or including modifications to it](#)

[iv] [Mandatory or voluntary](#)

[v] [English, French, Arabic, Portuguese, other, or dual \(EN/FR, AR/FR, ...\)](#)

[vi] [This reference may be linked to the national database and to the abstract of the national standard.](#)

Figure 1: Template to be filled in

b) Advancing in the selection of electrotechnical laboratories proposed for support to get accreditation (result n°2). Given the short time span of this project, it was developed a short (2 pages) questionnaire (refer to annex 2), to get information on their current capacities on a short notice. Main questions introduced are listed below:

- Identification of the laboratory.
- Scope: product or material tested, test method, IEC test standard.
- Status of the organization (private, state owned, etc.).
- Information on obtained accreditation(s).
- Subcontracting of tests.
- Availability of a Business Plan.
- Involvement in standards work.
- Any relevant information/suggestions within frame of this project.

This short questionnaire was developed jointly between KE2 and NKE2. KE2 and NKE2 also performed some background research on current accredited laboratories in AFSEC's State Members and Affiliate Countries using the web sites of the national accreditation bodies from these countries, to find out their scopes, number of laboratories, etc. Further analysis was performed on the kind of IEC standards which have been adopted in AFSEC member and affiliate member countries, to get information on the availability of IEC test standards which can be used by laboratories in some important areas as product safety testing (TC61), EMC testing (TC77), and electrical installation testing (TC64).

The questionnaire was mailed on 25 November 2016 to the NECs of AFSEC members and affiliate members. This decision was taken in agreement with AFSEC Secretariat at the Pretoria meeting because getting information also on the non-accredited laboratories would not be feasible for a number of reasons already explained above. Completed questionnaires were received from:

- Ghana (25.11.2016)
- Kenya (20.12.2016)

- South Africa (20.12.2016)
- South Africa (21.12.2016)
- South Africa (22.12.2016)
- Cote d’Ivoire (5.1.2017)
- Ghana (20.1.2017)

First analysis of data of labs, see table 1, who sent completed questionnaires taught us the following:

- ✓ Most laboratories were state-owned, accredited entities.
- ✓ They show limited use of Business Plans.

Lab No	Accreditation status	Kind of organisation	Business Plan available?
1	Ongoing	State owned	No
2	Ongoing	State owned	No
3	Accredited	Private	No
4	Accredited	State owned	Yes
5	Accredited	State owned	Yes
6	Ongoing	State owned	Yes
7	Ongoing	State owned	No (in development)

Table 1: main data of laboratories who completed the questionnaire

Main scopes of laboratories who sent completed questionnaires are in tables 2.1 and 2.2 below:

Lab No	Product/materials tested	IEC test standards
1	Household refrigerating appliances Electrical cables Batteries Switch/sockets	IEC 62552 series IEC 60227 series IEC 60095 IEC 60669-1-2
2	Electrical cables Household electrical appliances Batteries Lamps	IEC 60228, 60502 IEC 60335 series IEC 62031, 60968, 60969, 60064, 62776
3	Household electrical appliances ITE Audio-video equipment Meas., Control, Lab equipment UPS Electronic equipment used in Pwr inst. LED modules for general lighting	IEC 60335 series IEC 60950-1 IEC 60065 IEC 61010-1 IEC 60689 series IEC 62103 IEC 62031

Table 2.1: Main scopes of laboratories who completed the questionnaire

Lab No	Product/materials tested	IEC test standards
4	LV components, control & switch gear	IEC 60227, 60947 series, 60439-1, 60289, 60099
	HV components, control & switch gear	IEC 62271 series, 60660, 60076 series
5	Mains operated lawn movers/trimmers	IEC 60335-1 & -2-91
	Hand-held motor-operated electrical tools	IEC 60745 series
	Transportable motor operated tools	IEC 61029 series
	Single & three phase induction motors	IEC 60034 series, 60072 series
6	Conduit systems for cable management	IEC 60423
	Conduit systems for electrical installations	IEC 61386-1
	Electrical installation material (switches, circuit breakers, plugs)	No standards specified
7	Digital multimeter, clamp meter, Insulation tester, High Voltage tester, Resistor, Capacitor and Inductor	IEC guide 115

Table 2.2: Main scopes of laboratories who completed the questionnaire

Preliminary conclusions of the limited responses are that:

- Scopes of laboratories who responded to questionnaire mainly perform electrical safety testing for equipment/components.
- EMC testing not in scope of laboratories who responded.

A more elaborated questionnaire of 5 pages (see annex 6) was developed to:

- Capture in detail the scope and capacities of electrotechnical laboratories in AFSEC member and affiliate countries

This questionnaire was discussed in detail on the 2nd day of the Nairobi workshop (11th January 2017). This questionnaire is to be used during visits to the laboratories, it cannot be used on its own but should be used by laboratory experts to perform the visits to and perform assessments of laboratories who might get support for accreditation. As explained already in this report, this last activity was not in the scope of this project.

We see further guidance for this future activity of assessment visits of potential laboratories to get accreditation support in 2 areas:

1. Content of a typical business plan for the laboratory (see annex 7: to be provided with final version of final report)
2. Suggestions for the classification criteria to get accreditation support (see annex 8: to be provided with final version of final report)

The request for the above guidance was a result of the Nairobi workshop where participants asked for this information to be provided (some of the participants who asked this information already got it by electronic means during the workshop).

c) Regarding Result n°3, it was mainly discussed between KE1 and KE2 and AFSEC Secretariat during the meeting in Pretoria. In the view of Experts' Team, this was the best way for the experts to take into account the beneficiaries' needs after the end of the project.

For fulfilling results 1 and 2 the Experts' Team was confronted to one of the difficulties identified in the offer i.e : "Both AFSEC staff and AFSEC members (especially in both South Africa and Kenya) are fully involved and committed to the project's activities, participating and facilitating the work of the Technical Assistance Team on the ground"

The situation was such that in order to get the data on the national standards in force and on the laboratories in each country, four (4) mails for each State Member were necessary in order to receive the data of almost all countries. That was the major weak point of the implementation period.

However, at the end of the implementation period, it was possible for the Experts' Team to show the project database to the AFSEC Members, during the Final Validation Workshop in Nairobi, including a large number of National standards and the reference of 6 accredited Laboratories.

In addition to the database itself, at the end of the implementation period, the Experts' Team has delivered three (3) manuals for use of the database:

- An installation manual for facilitating the work of the IT specialists who will install the database in its production environment,
- An user manual for the AFSEC Administrator in charge of updating several aspects of the database,
- An user manual for the National Administrators for helping them to administrate the national part of the database.

The results obtained at the end of the implementation period seemed satisfactory to the beneficiaries even though time allocated to the project was too short (4 months including the inception period) for finalizing the total migration of all data in the data base.

During this period, the beneficiary was active in indicating his approval or not to the proposals made by the Experts' Team.

Finally, the Final Validation Workshop held in Nairobi on 10th and 11th January 2017, permitted to the beneficiaries to understand the reasons for the Experts' Team to have asked so eagerly the data from each country, permitted also to discuss the choice made to include only data for accredited laboratories and also to discuss with the representatives of AFSEC's State Members possible improvements of the database. In addition, the Action Plans envisaged by the Experts' Team were also validated.

3 RESULTS ACHIEVED

3.1 Results achieved

The results achieved during the project are the following:

- Ñ The database on harmonization of standards is available and was validated during the Final Validation Workshop,
- Ñ The data of almost all AFSEC's State Members on national standards in force and their origin (international or home-grown) is available,
- Ñ Indication whether these national standards are recommended by AFSEC or not is available,
- Ñ The following guides for use of the database:
 - The technical manual which describes the way to make technical modifications on the Database and its programming framework, in English,
 - The Installation guide which describes the needed steps to install **the AFSEC Electrotechnical Standards Database Application** in a production environment, in English and French,
 - The AFSEC Administrator User Guide, which describes how to use the main functionalities to AFSEC Administrator Role in the database, in English and French,
 - The AFSEC National Administrator User Guide, which describes how to use the main functionalities to Country Administrator Role in the database, in English and French.

All these guides are provided in **Annex 1**.

- Ñ The database was delivered to the beneficiary,
- Ñ The accredited laboratories are identified for each country when they exist,
- Ñ The action plans for future objectives are proposed and validated by the beneficiaries.

Therefore, except for Result n° 2 which requested “Identification of all African Electrotechnical Laboratories (or other facilities) qualified to be accredited to test electrical products”, the results initially expected were satisfied.

For Results n°2, the identification of the laboratories eligible to be supported for accreditation would have required visits in their premises for evaluation of their existing equipment and competence. Such visits were not foreseen in this project and therefore, identification of such labs was not possible. Instead, a simplified questionnaire circulated to the members of AFSEC had the aim of identifying the “Accredited laboratories” or those in progress to accreditation. Only the data of 7 laboratories, refer to annex 9, were sent (the last one was received on 20 January 2017) to the team of experts during this implementation period. Identification and guidance to accreditation of laboratories when they are made known is one of the action plan proposed by the team of experts.

3.2 Final Validation Workshop

The agenda of the workshop is given in **Annex 4**.

The eleven (11) AFSEC members and one (1) of the affiliate countries (Senegal) were represented at the final validation Workshop (see **Annex 4**). That means that the decisions taken there have been really validated by all the beneficiaries.

The experts presented the development of the project, as indicated in Power Point presentations included in **Annex 4**.

During the workshop a presentation of the database was done which led to thorough discussions between the participants and the team of experts. Based on these discussions, some slight modifications were agreed upon and will be taken care of before the end of the project.

Discussions took place on Result n°2 and on the questionnaires which had been answered and the one which had been prepared for future action.

Finally the Priorities and Action Plans of AFSEC (see Annex 3) was validated by the participants.

A detailed report of the Final Validation Workshop was already submitted to the TBT Programme PMU and validated. It is not included as an Annex to the present Final Report.

4 KEY FINDINGS AND RECOMMENDATIONS

From the results obtained it can be concluded that the Consortium in charge of this project have reached the main results expected in the project's Terms of Reference. The beneficiaries acknowledged their satisfaction on the project results obtained in the short period of time allowed to the Experts' Team.

The beneficiaries also validated the Priorities and Action Plans of AFSEC (see Annex 3) in relation to electrotechnical capacity, which are listed below:

- Year 2017 is established as the African Year of Quality Infrastructure. The Nairobi Workshop could be considered as the first event of the African Year of Quality Infrastructure.
- Each AFSEC Technical Committees should be assisted in the preparation of guides on use of standards under their responsibility. AFSEC should determine who could assist to the Technical Committees.
- Such guides could be used as support in an e-learning program to be structured.
- AFSEC should start discussion with PAQI regarding how to expand the database r areas other than the electrotechnical field.
- Regarding laboratories, a technical assistance with the participation of AFRAC should envisage assistance to laboratories for their accreditation.

Further details on the Priorities and Action Plans of AFSEC in relation to electrotechnical capacity are provided in Annex 3 of the present Final Report.

ANNEXES

Annex 1: Toolkit for the database of Electrotechnical Standards.

Annex 1.1. Technical Manual, English version.

Annex 1.2. Installation Guide, English and French versions.

Annex 1.3. User Guide for AFSEC Administrator, English and French versions.

Annex 1.4. User Guide for Country Administrator, English and French versions.

Annex 2. Information in relation to all African Electrotechnical Laboratories.

Annex 2.1. Short questionnaire for assessment of laboratories who could get support for accreditation

Annex 2.2. Long questionnaire for assessment of laboratories who could get support for accreditation

Annex 2.3. Content of a typical business plan for laboratories

Annex 2.4. Suggestions for the classification criteria to get accreditation support

Annex 2.5. Completed questionnaires by participant laboratories.

Annex 3. Priorities and Action Plans of AFSEC in relation to electrotechnical capacity.

Annex 4. Final Validation Workshop Report. The full document was already validated by the PMU of the TBT ACP Programme and written indication has been provided to not include the full document as an annex to this Final Report.

Annex 4.1. Programme of the Final Validation Workshop.

Annex 4.2. Attendance lists to the final Validation Workshop.

Annex 4.3. Presentations delivered during the Final Validation Workshop.

Annex 4.4. Analysis of questionnaires of evaluation provided by participants and organisers.

Annex 5: Timetable of the activities

ANNEX 1 - TOOLKIT FOR THE DATABASE OF ELECTROTECHNICAL STANDARDS.

This annex comprises the following documents:

Annex 1.1. Technical Manual, English version.

Annex 1.2. Installation Guide, English and French versions.

Annex 1.3. User Guide for AFSEC Administrator, English and French versions.

Annex 1.4. User Guide for Country Administrator, English and French versions.

ANNEX 1.1. TECHNICAL MANUAL, ENGLISH VERSION.



African, Caribbean and Pacific Group of States

“AFSEC – Harmonization of Electrotechnical Standards in Africa”

“ACP-EU TBT PROGRAMME” (REG/FED/022-667)

Project code: 089-16

Technical Manual

20/01/2017



In consortium with



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1. INTRODUCTION

This document describes the way to make technical modifications on the Database and its programming framework.

2. THE ANGULAR JS

The AFSEC Database is constructed using **Angular JS version 1** <https://angularjs.org/> . Angular is a client-side MVC/MVVM framework built in JavaScript, essential for modern single page web applications (and even websites).

Angular has an initial short learning curve, any person will find it's up and down after mastering the basics. It's mainly getting to grips with the terminology and "thinking MVC". MVC stands for *Model-View-Controller*. Here are the higher level and essential APIs that Angular comes with, and some terminology.

MVC

It's used in many programming languages as a means of structuring/architecting applications/software. Here's a quick breakdown of meanings:

Model: the data structure behind a specific piece of the application, usually ported in JSON. Read up on JSON before getting started with Angular as it's essential for communicating with your server and view.

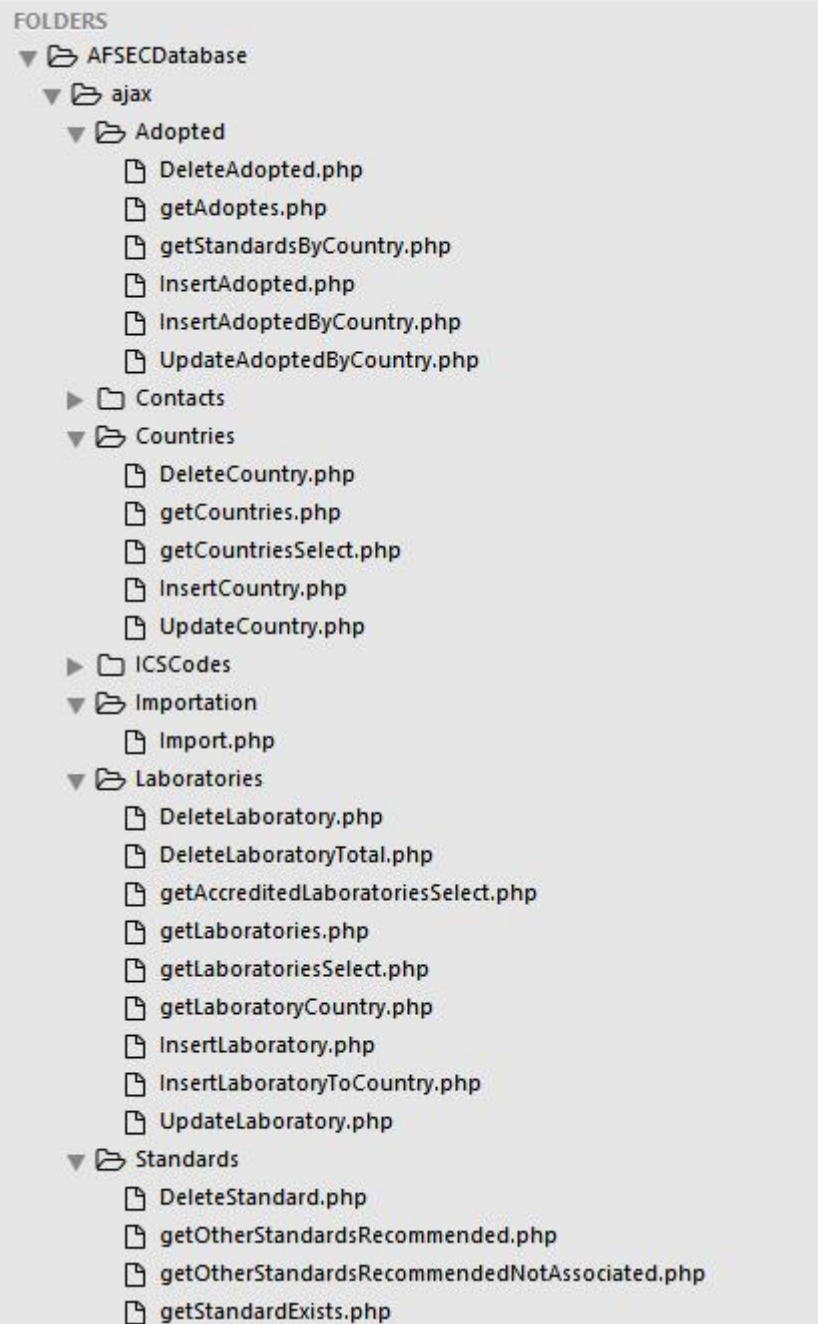
View: The view is simple, it's your HTML and/or rendered output. Using an MVC framework, you'll pull down Model data which updates your View and displays the relevant data in your HTML.

Controller: Do what they say on the tin, they control things. But what things? Data. Controllers are your direct access from the server to the view, the middle man, so you can update data on the fly via comms with the server and the client.

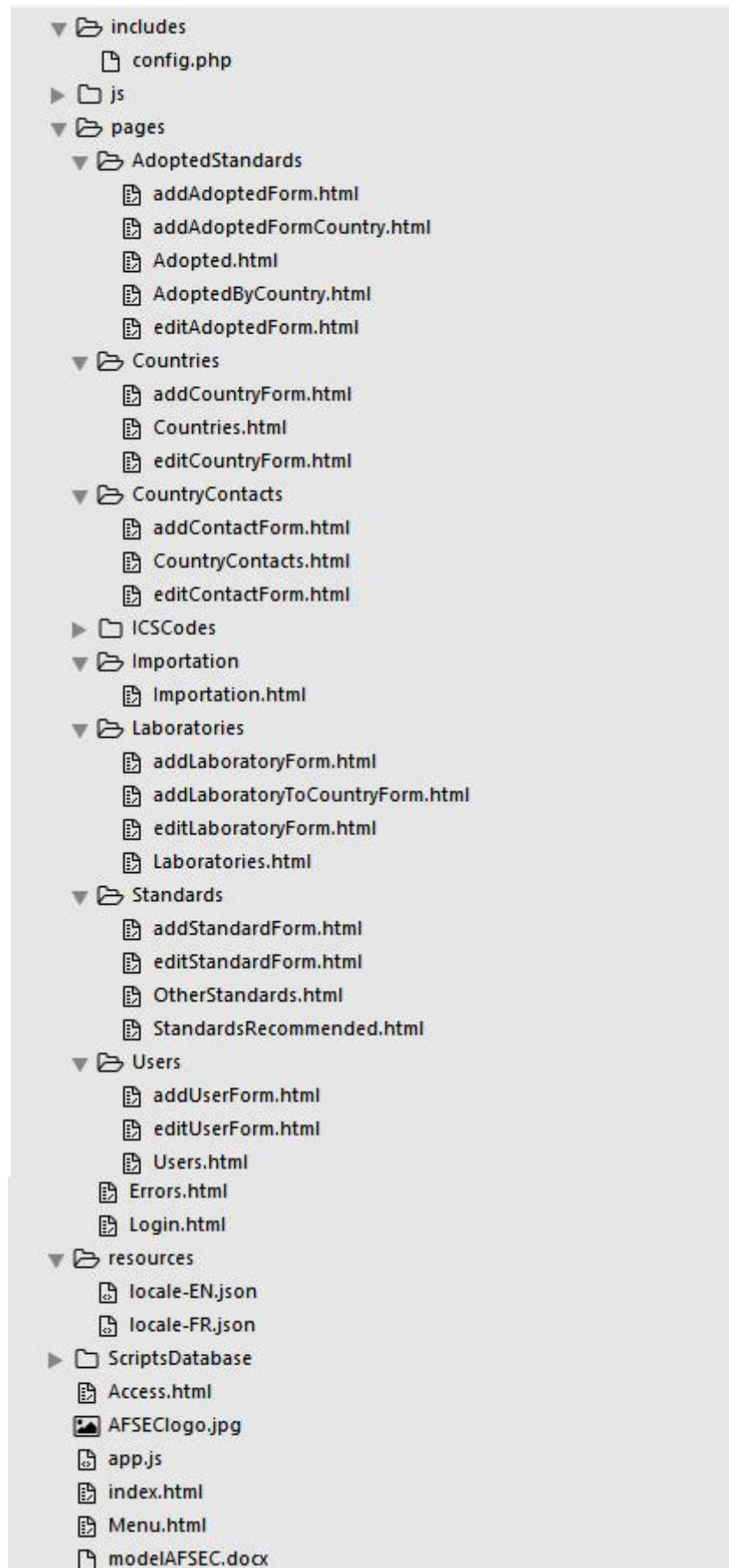
3. IMPORTANT CONSIDERATIONS

To make any modifications or added in the AFSEC Database project, we must have experience in Angular JS, PHP language programming, HTML and Bootstrap as CSS Framework.

We have organized the structure of the Source Code as follows:







In **ajax Directory**, we have all files (organized by functionalities directories) to make the **SQL Queries by PHP to MySQL Database**. The access data to the MySQL Database are described in the file `config.php` in the **includes Directory**:

```
<?php
error_reporting(E_ALL ^ E_NOTICE);

$db_hostname = 'localhost';

$db_database = 'afsec';

$db_username = 'AdminAfsec';

$db_password = 'AdminAfsec';

$mysqli = new mysqli($db_hostname,$db_username, $db_password, $db_database,3306);

$mysqli->set_charset("utf8");

if ($mysqli->connect_errno) {

    echo "Problem with Database.";

    echo "Error: Fail to connect to MySQL Server: \n";

    exit;

}

?>
```

In the **app directory**, we have the **Angular files** that we'll explain in the next sections. In the **CSS Directory** we get the Bootstrap CSS <http://getbootstrap.com/> to Graphic styles of the AFSEC Database and the fonts of the applications in **Fonts Directory**.

All files about Angular, Javascript and needed libraries of Angular to the project, are situated in the **js Directory (then included in the index.html file)**.

Too, the html files with angular tags organized by functionalities, are in **Pages Directory**. Finally, in **resources Directory**, we get the files with the words in English or French to make the translations in the Database and we put the database scripts to MySQL in **ScriptsDatabase Directory**.

It's important to say that in the root, we can get the `app.js` file that define the angular application and it's the basis to make the AFSEC Database works.

4. SETTING UP AFSEC DATABASE

First, we need to setup the essentials to an Angular project as AFSEC Database. There are certain things to note before we begin, which generally consist of an ng-app declaration to define your app, a Controller to talk to your view, and some DOM binding and inclusion of Angular. Here are the essentials:

Some HTML with ng- declarations:*

In index.html including in all HTML files of the project:

```
<!DOCTYPE html>
```

```
<html ng-app="myApp" ng-app lang="en">
```

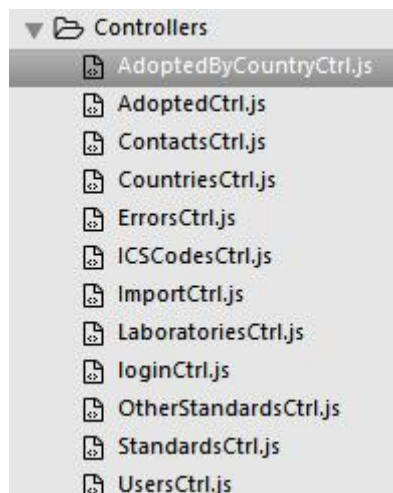
An Angular Module and Controller in file app.js:

```
'use strict';
```

```
var app = angular.module('myApp', ['ui.bootstrap', 'ngRoute', 'pascalprecht.translate', 'ngSanitize', 'ngCsv']);
```

```
app.config(['$routeProvider', '$translateProvider', '$provide', function ($routeProvider, $translateProvider, $provide) {..}]
```

Before jumping in, we need to create Angular *modules* which all our logic will bolt onto. You can see all Controllers for the Database in the directory Controllers:



And the start of any controller will be similar to this:

```
app.controller('getStandardsbyCountryCtrl', ['$scope', '$location', 'loginService', 'sessionService', '$http', '$timeout',
```

```
  'languageService', 'CSVService', '$anchorScroll',
```

```
  function ($scope, $location, loginService, sessionService, $http, $timeout, languageService, CSVService, $anchorScroll) {..}]
```

Each new file it creates simply grabs theApp namespace and automatically bolts itself into the application.

5. CONTROLLERS

Now you've grasped the concept of MVC and a basic setup, let's check out Angular's implementation on how you can get going with Controllers.

Taking the example from above, we can take a baby step into pushing some data into the DOM from a controller. Angular uses a templating-style `{{ handlebars }}` syntax for talking to your HTML. Your HTML should (ideally) contain no physical text or hard coded values to make the most of Angular. Here's an example of pushing a simple String into the DOM:

```
<div ng-app="myApp">
```

"The contents of this publication are the sole responsibility of" name of the author" and can in no way be taken to reflect the views of the European Union nor the ACP Secretariat." "The content of this document does not necessarily reflect the views of the concerned governments" "This Project is financed by the European Union"

```
<div ng-controller="MainCtrl">
  {{ text }}
</div>
</div>
```

```
var myApp = angular.module('myApp', []);
myApp.controller('MainCtrl', ['$scope', function ($scope) {
  $scope.text = 'Hello, Angular fanatic.';
}]);
```

As you can see in a similar way but for AFSEC Database in files, the app.js or any in Controllers Directory.

The key rule concept here is the \$scope concept, which you'll tie to all your functions inside a specific controller. The \$scope refers to the current element/area in the DOM (no, not the same as this), and encapsulates a very clever scoping capability that keeps data and logic completely scoped inside elements. It brings JavaScript public/private scoping to the DOM, which is fantastic.

The \$scope concept may seem scary at first, but it's your way into the DOM from the server (and static data if you have that too)!

It's important to remember that Controllers are for *data* only, and creating functions (event functions too!) that talk to the server and push/pull JSON data. No DOM manipulation should be done here, so put your jQuery toolkit away. Directives are for DOM manipulation, and that's up next.

As you can see in the AFSEC Database project, we have a file for each controller using in the Database (main functionalities). It's important include this files in the index.html to be loaded in the application.

If you want to create a new controller, you must define a file in Controllers directory (with its logic) and include it in index.html.

You have more information about controllers here <https://docs.angularjs.org/guide/controller>

6. DIRECTIVES

A directive is a small piece of templated HTML, preferably used multiple times throughout an application where needed. It's an easy way to inject DOM into your application with no effort at all, or perform custom DOM interactions.

So, what are directives useful for? A lot of things, including DOM components, for example tabs or navigation elements - really depends on what your app makes use of in the UI. In the case of the AFSEC Database (Directory Directives -> file ToolTipDirective.js), we created several directives to make a tooltip, a menu, a confirm message when a data is deleted or to upload a file to import data into database:

```
app.directive('tooltip', function () {
  return {
    restrict: 'A',
    link: function (scope, element, attrs) {
```

```

$(element).hover(function () {
    // on mouseenter
    $(element).tooltip('show');
}, function () {
    // on mouseleave
    $(element).tooltip('hide');
});
}
};
});
app.directive('menu', function () {
    return {
        restrict: 'E',
        templateUrl: 'Menu.html',
        controller: 'menuController',
        controllerAs: 'menuController'
    }
});
app.directive('uploaderModel', ['$parse', function ($parse) {
    return {
        restrict: 'A',
        link: function (scope, iElement, iAttrs)
        {
            iElement.on("change", function(e)
            {
                $parse(iAttrs.uploaderModel).assign(scope, iElement[0].files[0]);
            });
        }
    };
}]);
app.directive('ngReallyClick', [function() {
    return {
        restrict: 'A',
        link: function(scope, element, attrs) {
            element.bind('click', function() {
                var message = attrs.ngReallyMessage;
                if (message && confirm(message)) {
                    scope.$apply(attrs.ngReallyClick);
                }
            }
        }
    };
}]);

```

```
});  
}  
}  
});
```

You have more information here: <https://docs.angularjs.org/guide/directive>

7. SERVICES

Services are often a confusing point. From experience and research, they're more a stylistic design pattern rather than providing *much* functional difference. After digging into the Angular source, they look to run through the same compiler and they share a lot of functionality. You should use Services for *singletons*, and Factories for more complex functions such as Object Literals and more complicated use cases.

When you create a Service (or Factory) you'll need to use dependency injection to tell Angular it needs to grab hold of your new Service - otherwise you'll get a compile error and your Controller will break.

In AFSEC Database, **we have the file services.js in Services Directory** where we defined services related with login, session information, language translation of the data, export list to Excel, importation data from files to Database and to know the role of the user or if it's connected or not.

You have more information here: <https://docs.angularjs.org/guide/services>

ANNEX 1.2. INSTALLATION GUIDE, ENGLISH AND FRENCH VERSIONS.



African, Caribbean and Pacific Group of States

“AFSEC – Harmonization of Electrotechnical Standards in Africa”

“ACP-EU TBT PROGRAMME” (REG/FED/022-667)

Project code: 089-16

Database Installation Guide

03/01/2017



In consortium with



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1. INTRODUCTION

This document describes the needed steps to install **the AFSEC Electrotechnical Standards Database Application** in a production environment.

2. SYSTEM AND TECHNICAL REQUIREMENTS

-) Application Server Apache 2
-) Database Server MySQL – Community Server or Upper. Version 5.5 or upper.
-) PHP Development Platform – version 5.7 and upper.
-) Operating System – UBUNTU, Windows, etc.... depends on ISP (Internet Service Provider)

3. TASKS RELATED TO THE DATABASE

Initialization Scripts

For the implementation of the **Database of AFSEC Electrotechnical Standards**, it is necessary to create the necessary infrastructure in database (MySQL Server).

The application provides text files related to the creation of tables, initialization of data, assignment of privileges and users, etc. These scripts are tested for the MySQL database in version 5.

Below is a table listing the name of the file to run and the user to authenticate to the database:

Realization Order	File Name	User	Description
1	CreateDatabase&&User.sql	ROOT) Create User AdminAfsec with password AdminAfsec) Create Afsec Database) Give Grants to AdminAfsec User
2	TablesAfsec.sql	ROOT	Create all tables of the Database with primary and foreign keys.
3	InsertUsers.sql	ROOT	Insert data in Users Table
4	InsertCountries.sql	ROOT	Insert data in Countries Table
5	InsertContacts.sql	ROOT	Insert data in Contacts Table
6	InsertLaboratories.sql	ROOT	Insert data in Laboratories Table
7	InsertAccreditedLaboratories.sql	ROOT	Insert data in Accredited Laboratories Table
8	InsertRecommendedStandards.sql	ROOT	Insert data in Recommended Standards Table
9	InsertAdoptedRecommendedStandards.sql	ROOT	Insert data in Adopted Recommended Standards Table

4. TEST USERS

In the application, in the integration environment (and in the *Initialization Scripts too*), the following users have been defined to use the database:

User	Password	Description
Admin	Admin	AFSEC Super Administrator
Coted	Coted	National Administrator of Cote d'Ivoire
Ghana	Ghana	National Administrator of Ghana
Namibia	Namibia	National Administrator of Namibia
Kenya	Kenya	National Administrator of Kenya
Congo	Congo	National Administrator of Congo
Egypt	Egypt	National Administrator of Egypt
Nigeria	Nigeria	National Administrator of Nigeria
Rwanda	Rwanda	National Administrator of Rwanda
South	South	National Administrator of South Africa
Sudan	Sudan	National Administrator of Sudan
Zambia	Zambia	National Administrator of Zambia
Senegal	Senegal	National Administrator of Senegal
Libya	Libya	National Administrator of Libya

5. TASKS RELATED TO THE DATABASE APPLICATION

Installation

The only task to do will be **copy the AFSECDatabase directory to htdocs directory of the Apache Server or to /var/www/html directory depending on the environment of the ISP.**

It's important that the Apache server is configured with the **HTTPS protocol**. More information https://httpd.apache.org/docs/2.4/ssl/ssl_howto.html

6. CHECKING THE SERVICE

Once deployed or redeployed the application, to verify its correct operation enter the url deploys in the following format:

) **Public Access**

`https://<domainAFSEC>/AFSECDatabase/index.html#/public`

) **Private Access**

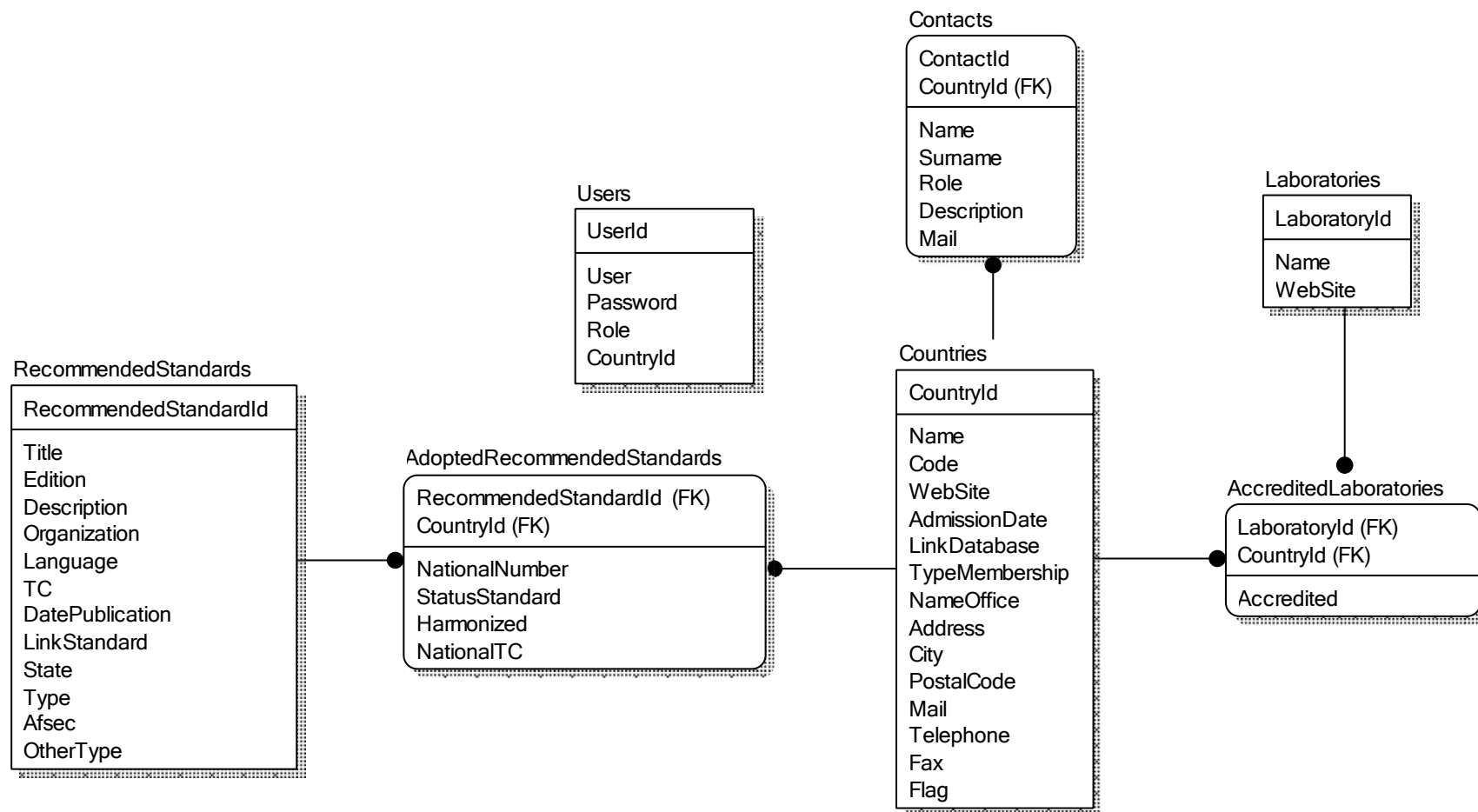
`https://<domainAFSEC>/AFSECDatabase/index.html#/login`

7. GOOGLE ANALYTICS

If you want to know more about your visitors and how your content is performing or whether you run a website for a home business or a large corporation, Google Analytics is the industry standard for tracking, analyzing, and reporting site data. Knowing how to use Google Analytics correctly will help you measure site traffic, SEO, engagement, ad revenue, and even activity on social media.

We recommended to AFSEC the use the Google Analytics (<https://analytics.google.com/>) by its ISP, to identify the origin of visitors to the database.

Annexes. Database Model





***Groupe des Etats Africains, des Caraïbes
et du Pacifique***

**“AFSEC – Harmonisation des normes électrotechniques
en Afrique”**

“ACP-EU TBT PROGRAMME”

(REG/FED/022-667)

Code Projet: 089-16

Guide d’installation de la base de données

03/01/2017



en consortium avec



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1. INTRODUCTION

Le présent document décrit les étapes nécessaires pour installer dans un environnement de production l'**Application de base de données des normes électrotechniques de l'AFSEC**.

2. SYSTÈME ET PRESCRIPTION TECHNIQUES

-) Application serveur Apache 2
-) Base de données serveur MySQL- ou supérieur. Version 5.5 ou supérieure.
-) Plateforme de développement PHP – version 5.7 et supérieur.
-) Le système d'exploitation – UBUNTU, Windows, etc dépend du FAI (Fournisseur d'accès)

3. TÂCHES RELATIVES À LA BASE DE DONNÉES

Scripts d'initialisation

Pour la mise en œuvre de la **Base de données des normes électrotechniques AFSEC**, il est nécessaire de créer l'infrastructure nécessaire dans le serveur (serveur MySQL).

L'application fournit des fichiers texte associés à la création de tables, d'initialisation des données, attribution de privilèges et utilisateurs, etc. Ces scripts sont testés pour la base de données MySQL en version 5.

Ci-dessous un tableau qui répertorie le nom du fichier à exécuter et l'utilisateur pour s'authentifier sur la base de données :

Ordre de réalisation	Nom de fichier	Utilisateur	Description
1	CreateDatabase & & User.sql	RACINE	<ul style="list-style-type: none">)Créer AdminAfsec utilisateur avec mot de passe AdminAfsec)Créer la base de données Afsec)Donner des droits à l'utilisateur AdminAfsec
2	TablesAfsec.sql	RACINE	Créer toutes les tables de la base de données avec des clés primaires et étrangères.
3	InsertUsers.sql	RACINE	Insérer des données dans la Table Users
4	InsertCountries.sql	RACINE	Insérer des données dans la Table des pays
5	InsertContacts.sql	RACINE	Insérer des données dans la Table Contacts
6	InsertLaboratories.sql	RACINE	Insérer des données dans la Table des laboratoires
7	InsertAccreditedLaboratories.sql	RACINE	Insérer des données dans la Table des laboratoires accrédités
8	InsertRecommendedStandards.sql	RACINE	Insérer des données dans le tableau de normes recommandées
9	InsertAdoptedRecommendedStandards.sql	RACINE	Insérer des données dans le tableau de normes de recommandé a adopté

4. TEST UTILISATEURS

Dans l'application, dans l'environnement d'intégration (et *dans l'initialisation des Scripts également*), les utilisateurs suivants ont été définis pour utiliser la base de données :

Utilisateur	Mot de passe	Description
Admin	Admin	AFSEC Super administrateur
Coted	Coted	Administrateur national de Côte d'Ivoire
Ghana	Ghana	Administrateur national du Ghana
Namibie	Namibie	Administrateur national de la Namibie
Kenya	Kenya	Administrateur national du Kenya
Congo	Congo	Administrateur national du Congo
Égypte	Égypte	Administrateur national de l'Égypte
Nigeria	Nigeria	Administrateur national du Nigeria
Rwanda	Rwanda	Administrateur national du Rwanda
Sud	Sud	Administrateur national d'Afrique du Sud
Soudan	Soudan	Administrateur national du Soudan
Zambie	Zambie	Administrateur national de la Zambie
Sénégal	Sénégal	Administrateur national du Sénégal
Libye	Libye	Administrateur national de la Libye

5. TÂCHES LIÉES À L'APPLICATION DE LA BASE DE DONNÉES

Installation

La seule tâche à réaliser sera de **copier le répertoire AFSECDatabase vers le répertoire htdocs du serveur Apache ou vers le répertoire /var/www/html** selon l'environnement de l'ISP.

Il est important que le serveur Apache soit configuré avec le **protocole HTTPS**. Plus d'informations dans https://httpd.apache.org/docs/2.4/ssl/ssl_howto.html

6. CONTRÔLE DU SERVICE

Une fois l'application déployée ou redéployée, pour vérifier son bon fonctionnement entrez l'url déployé dans le format suivant :

) **Accès public**

<https://<domainAFSEC>/AFSECDatabase/index.html#/public>

) **Accès privé**

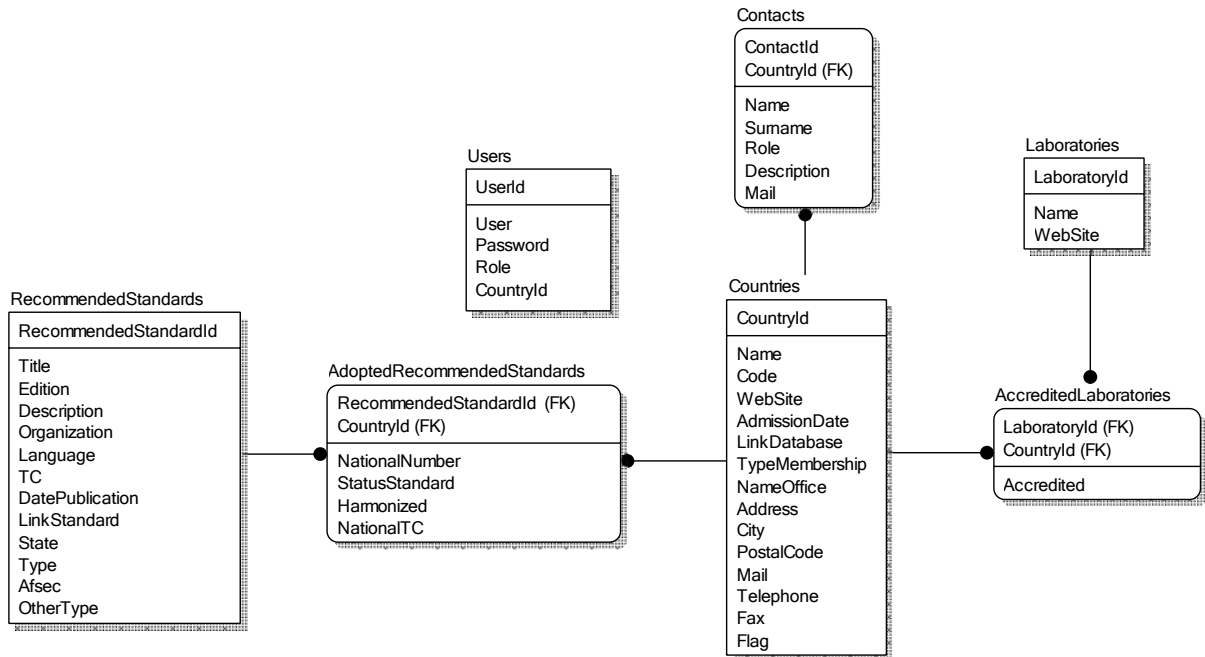
<https://<domainAFSEC>/AFSECDatabase/index.html#/login>

7. GOOGLE ANALYTICS

Si vous voulez en savoir plus sur vos visiteurs et les performances du contenu ou lorsque vous exécutez un site Web pour une entreprise à domicile ou une grande entreprise, Google Analytics est le standard industriel pour le suivi, l'analyse et l'établissement de rapports sur les données de site. Savoir comment bien utiliser Google Analytique vous aidera à mesurer le trafic sur le site, référencement (optimisation des moteurs de recherche – en anglais SEO), engagement, revenus publicitaires et même l'activité sur les médias sociaux.

Nous avons recommandé à AFSEC l'utilisation du Google Analytics (<https://analytics.google.com/>) par son FAI, de façon à identifier l'origine des visiteurs de la base de données.

ANNEXE 1. MODÈLES DE BASE DE DONNÉES



ANNEX 1.3. USER GUIDE FOR AFSEC ADMINISTRATOR, ENGLISH AND FRENCH VERSIONS.



African, Caribbean and Pacific Group of States

“AFSEC – Harmonization of Electrotechnical Standards in Africa”

“ACP-EU TBT PROGRAMME” (REG/FED/022-667)

Project code: 089-16

User Manual – AFSEC Administrator

20/01/2017



In consortium with



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1. INTRODUCTION

This document describes the explanations to use the main functionalities to AFSEC Administrator Role in the database.

2. THE AFSEC DATABASE

One of the main objectives of this project is the implementation of the Database of Electrotechnical Standards of the AFSEC Members. In a general way, that Database will allow to:

- Propose a **list of recommended standards for adoption by AFSEC** to their members.
- **Manage for each AFSEC member country, their adopted standards, accredited laboratories and contact information.**
- Define three types of roles to access to the Database:
 - **At AFSEC level for:**
 - Introducing new country members in the database.
 - Introducing new recommended Electrotechnical Standards
 - Introducing users which can access to the database with different roles.
 - **At each national committee level for:**
 - Adopting any recommended standard by AFSEC.
 - Create and associate new electrotechnical standards not recommended by AFSEC.
 - Manage the contact information of the AFSEC member countries.
 - Add accredited or not accredited laboratories to the country.
 - **At public access:**
 - View all the adopted standards for each AFSEC Member Country.
 - View all the recommended standards for adoption by AFSEC
 - Export all these data to Excel.

3. MAIN FUNCTIONALITIES

1. Database Access

We will have a specific screen to access the Database in a private mode. In this case for AFSEC Administrator.

Insert Standard Details Into Database

Reference Number:

It's required

Type:

IEC Regional Home Grown Other sources of standards

Other sources of standards:

It's required!

Edition:

It's required

State:



It's required!

Title:

It's required

Organization:

Language:



It's required

TC:

It's required

Publication Date:

It's required

Link to standard (optional):

Add into Database

Reset

Cancel

- Reference Number: For Example, IEC 60335-2-6 2014
- Type: IEC, Regional or Homegrown Standard and Other Sources for Standards. In this last case, we must detail those sources.
- Edition of the Standard.
- State: Active or Withdrawn
- Description/Title of the Standard: For example, Household and similar electrical appliances – Safety – Part 2-6: Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances
- Organization: For Example, IEC, ISO, AFSEC, etc.
- Language: English, French, etc.
- TC: Technical Committee of the Standard.
- Publication Date: Year of the publication date of the standard
- Link to standard: If exists, to see the standard in pdf for example.


For each AFSEC recommended Standard already registered in database we have two buttons to update and delete that information by AFSEC Administrator.

3. Other Standards not yet recommended by AFSEC

The AFSEC Administrator can update and delete the data of the standards not yet recommended by AFSEC associated to countries and see the number of countries that have adopted any of that kind of standard.

Database of the Standards adopted for AFSEC Countries Language | English | ▾







AFSEC SuperAdministrator User: Admin Logout

 Compilation of Standards in use in AFSEC member countries

Menu | AFSEC Recommended Standards | **Other Standards** | Countries | Users | Import

Page Size: Filter:

Filtered 2470 of 2470 Total Recommended Standards [Export to CSV/Excel](#)

Reference Number	Type	Recommended by AFSEC	Edition	State	Title	Organization	Language	AFSEC TC	Publication Date	Countries have adopted	Update	Delete
ARP 032	Home Grown	Not Yet	1	Active	Guidelines for the modification of luminaires for tubular fluorescent lamps to retro-fit I F0 tubular lamps or T5 semi-luminaires	SANS	English	064-02	2014	1		
ARP 035	Home Grown	Not Yet	3	Active	Guidelines for the installation and maintenance of street lighting	SANS	English	064-02	2014	1		
ARP 061 Grown	Home	Not Yet	1.01	Active	Procurement guide for large cage rotor induction motors of medium voltage	SANS	English	061	2012	1		

It is important to say that the form of data to update will be the same that when we add a new recommended standard. And when we click on the countries that have adopted any standard in that list, we can see more information about that adoption:

Name	Name Office	Code	Membership	Admission Date	Address of the NC	National Number	National TCL	Status of Standard	Harmonized	Laboratories	Delete
	EC National Committee of South Africa	ZA	Statutory		Private Bag X191 Fretoria 0001 +27 12 423 79 11 +27 12 344 15 63	ARP 062-5		Voluntary	With Modifications	2	

As National Number of the Standard, National Technical Committee, Status of the Standard and if that adoption is harmonized or not.

4. Country Members

To create, update and delete the data of member countries (contact information).








































Language: English

AFSEC SuperAdministrator User: Admin Logout

AFSEC List of the AFSEC Countries Members

Menu [AFSEC Recommended Standards](#) [Other Standards](#) **[Countries](#)** [Users](#) [Import](#)

Page size: 50 Filter: Filtered 13 of 13 Total Countries

Flag	Country Name	Name Office	Code	Membership	Admission Date	Website	Address of the NC	Adopted Standards	Laboratories	Update	Delete
	Cote d'Ivoire	Direc D'Ivoire Normalisation (CODINORM)	CI	Statutory		http://www.codinorm.ci	2 plateaux Bided / Anglo Blvd L27110 / rue K115 Villa 195-(repere) 3000CO 2-plateaux / Abidjan / Cote d'Ivoire yahooussou@energies.ci +225 22 41 67 58 +225 22 41 62 67	0	1		
	Democratic Republic of the Congo	Centre Congolais de Normalisation (CCN)	CD	Statutory		http://www.ccn.cd	SRK Avenue du 31 - 11 P 1414-888 P Kinshasa/Congo +243 12 211 77 +243 12 215 74	0	1		
	Egypt	Ministry of Electricity & Energy	EG	Statutory			Abbasia CAIRO EQ-11517 -20 22261 91 66 +20 22261 91 66	0	0		
	Ghana	Ghana Standards Authority (GSA)	GH	Statutory		http://www.gsa.gov.gh/	Off Tefeh Quassie Interchange - Legon-Nicola Road / Accra / Ghana Accra P.O. BOX MB 245 info@gsa.gov.gh +233 30 200 0000 +233 30 200 0000	0	0		
	Kenya	Kenya Bureau of Standards (KEBS)	KE	Statutory		https://www.kebs.org	Kapiti Road, Off Mombasa Road - P.O. Box 54974 Nairobi 00200 info@kebs.org +254 20 6054606948000 -254 20 600630	31	1		
	Libya	EC National Committee of the Libya	LY	Affiliate		http://www.inosm.org.ly	Libyan National Center for Standardization and Metrology Building - Alfarajee - P.O. Box 5178 Tripoli +218 21 4004 6500/011 +218 21 4004 6500	0	0		
	Namibia	Namibian Standards Institute (NSI)	NA	Statutory		http://www.nsi.com.na/	Forum (2nd Bankam) Building - First Floor Suite 115 - 11-17 DE FRANS 100120 Street Windhoek, Namibia P.O. Box. 26364 query@nsi.com.na +264 61 3884000/401402 -264 61 388454	39	0		
	Nigeria	Standards Organisation of Nigeria (SON)	NC	Statutory		http://sccr.gov.ng/	Flat 13/14 North Business District Victoria Ardèche Street - Lekki Peninsula Scheme 1 YABA, LAGOS PMB 2102 info@sccr.gov.ng +234 1 27 08 241 +234 1 27 08 243	194	0		
	Rwanda	Rwanda Standards Board (RSB)	RW	Statutory		http://www.rsb.gov.rw/	KK 15 Road, 49 PC Box 7099 Kigali info@rsb.gov.rw +250 252 596 103 +250 252 593 305	426	0		
	Senegal	Association Sénégalaise de Normalisation (ASN)	SN	Affiliate		http://www.asn.sn/	21 Liberté Street - Route du Front de l'air Financière BP 4617 Ichoumbean +221 827 64 01 +221 827 64 12	0	0		
	South Africa	EC National Committee of South Africa	ZA	Statutory			Private Bag X191 Pretoria 0001 +27 12 428 79 11 +27 12 344 15 63	1667	2		
	Sudan	Sudanese Standard and Metrology Organisation (SSMO)	SD	Statutory		http://www.ssmo.gov.sd	Caladia Street - P.O. Box 13573 Khartoum info@ssmo.gov.sd +249 183 775247 +249 183 774600	21	0		
	Zambia	Zambia Bureau of Standards (ZABS)	ZM	Statutory		http://www.zabs.org.zm/	PO Box 50259 Ridgeway - Lusaka ZA 16101 +260 1 291 338 +260 1 238 483	270	0		

First 1 Last

[Back](#)

[Logout](#)

Insert Country Details Into Database

Name:

It's required!

Name Office:

Code ISO Country:

It's required!

Admission Date:

Website:

Membership

Link to National Database (optional):

Address of Country:

City:

Postal Code:

Mail:

Telephone:

Fax:

Associate Accredited Laboratories:

URL to Country Flag:

It's required!

The information to be filled in for any new country to register in the database will be:

- Name of the Country
- Name of the organization in the Country for Electrotechnical standardization Management
- Code ISO of Country
- Admission Date in AFSEC
- Website of the National organization if it exists.
- AFSEC Membership: Affiliate or Statutory
- If it exists, link to National Database of Standards.
- Contact Information with Address, City, Postal Code, Mail, Telephone, Fax.
- If we want, we can associate Accredited Laboratories to any country.
- Flag of the member country

Some of these fields are required and others not.

In the list of the country members of the AFSEC, the AFSEC Administrator can access to the total of adopted recommended and not recommended standards and the list of laboratories that are accredited or not in any country.










































On the latter, only the AFSEC Administrator can delete a laboratory of the AFSEC Database.

Name	Website	Accredited	Delete Laboratory from Database for all countries
LBTP(Laboratoire du Bâtiment et des Travaux Publics)	http://www.lbtp.org	Yes	

5. Users of Database

To manage users (add, update or delete users) that can access to the Database based on their role (AFSEC Administrator, Country Administrator).

Add new user +
Export to CSV/Excel

User	Password	Role	Country	Update	Delete
Admin	Encrypted	AFSEC SuperAdministrator			
Coted	Encrypted	Country Administrator	 Cote d'Ivoire		
Congo	Encrypted	Country Administrator	 Democratic Republic of the Congo		
Egypt	Encrypted	Country Administrator	 Egypt		
Ghana	Encrypted	Country Administrator	 Ghana		
Kenya	Encrypted	Country Administrator	 Kenya		
Libya	Encrypted	Country Administrator	 Libya		
Namibia	Encrypted	Country Administrator	 Namibia		
Nigeria	Encrypted	Country Administrator	 Nigeria		
Rwanda	Encrypted	Country Administrator	 Rwanda		
Senegal	Encrypted	Country Administrator	 Senegal		
South	Encrypted	Country Administrator	 South Africa		
Sudan	Encrypted	Country Administrator	 Sudan		
Zambia	Encrypted	Country Administrator	 Zambia		

The data for any new user in the database will be:

Insert User Details into Database

User:

It's required!

Password:

It's required!

Role:

It's required!

Country:
It's required!

Add into Database
Reset
Cancel

- **Username**
- **Password to access the Database**
- **Role:** *AFSEC Administrator – Country Administrator*
- **Country:** *If the Role is Country Administrator, select the Country.*

4. OTHER FACILITIES OF THE DATABASE

The AFSEC Administrator could import data about standards of one country in the database but the process is not easy and is better done by IT technical staff.

In any list of the database, **we will have the possibility to filter the information by several ways:**

PageSize: Filter:
Filtered 761 of 761 Total Recommended Standards

Number of lines by page (Page Size - Pagination)

1. Search/Filter by any word (or sub word) in any column of the list
2. Order the data in columns by click on arrows (Up/Down), in the title of each column. Title↑
3. Choice of the language (English/French)

Language: English
English
Français

On the other hand, any list can be exported to MS Excel in a CSV file. In MS Excel, we must use the following Menu Options to see the data in a correct way:

Select the first column of the CSV File and then click on the following menu options in MS Excel:

Data-Text in Columns-Separated by commas.



Groups d'Etats Africains, des Caraïbes Et du Pacifique

**“AFSEC – Harmonisation des normes electrotechniques
en Afrique”**

**“ACP-EU TBT PROGRAMME”
(REG/FED/022-667)**

Code Projet: 089-16

Manuel de l'Utilisateur – Administrateur AFSEC

20/01/2017



en consortium avec



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2. LA BASE DE DONNEES AFSEC.....	3
3. PRINCIPALES FONCTIONNALITÉS.....	3
4. AUTRES INSTALLATIONS DE LA BASE DE DONNEES	13

1. INTRODUCTION

Le présent document décrit les explications nécessaires pour utiliser les principales fonctionnalités du rôle d'Administrateur d'AFSEC dans la base de données.

2. LA BASE DE DONNEES AFSEC

L'un des principaux objectifs de ce projet est la mise en œuvre de la base de données des Normes électrotechniques des membres AFSEC. D'une manière générale, cette base de données permettra de :

- Proposer **une liste des normes recommandées pour adoption par AFSEC** à ses membres.
- **Gérer pour chaque pays membre de l' AFSEC, les normes qu'ils ont adoptées, les laboratoires accrédités et les coordonnées correspondantes.**
- Définir trois types de rôles pour accéder à la base de données :
 - **Au niveau de l'AFSEC pour :**
 - inclure de nouveaux pays membres dans la base de données.
 - Introduire de nouvelles normes électrotechniques recommandées
 - Introduire des utilisateurs qui peuvent accéder à la base de données avec des rôles différents.
 - **Au niveau de chaque Comité national pour :**
 - Adopter une norme recommandée par l'AFSEC.
 - Créer et associer de nouvelles normes électrotechniques non recommandés par l'AFSEC.
 - Gérer les informations de contact des pays membre de l'AFSEC.
 - Ajouter les laboratoires des pays, qu'ils soient accrédités ou non .
 - **À l'accès du public pour pouvoir :**
 - connaître toutes les normes adoptées par chaque pays membre de l'AFSEC.
 - Identifier toutes les normes recommandées pour adoption par l'AFSEC
 - Exporter toutes ces données vers Excel.

3. PRINCIPALES FONCTIONNALITÉS

1. *Base de données Access*

Nous aurons un écran spécifique pour accéder à la base de données en mode privé. Dans ce cas pour l'administrateur AFSEC.

Portail Orange : Actu, S... Reverso | Traduction en IEC 60335-2-6:2014 | IEC info_jec60335-2-6(e) x DATABASE OF THE ...

52.56.70.109/AFSECDatabase/index.html#/login

Langue Français

Base de données des normes adoptées pour les pays de l'AFSEC



Bienvenue:

Nom d'utilisateur

Mot de passe

S'identifier



Et où nous pouvons sélectionner la langue de la base de données, en anglais ou en Français et introduire notre nom d'utilisateur et mot de passe pour être authentifié par l'application.

L'administrateur AFSEC sera celui qui est chargé de donner les informations d'identification correctes des pays pour leur faciliter l'accès, comme nous le verrons plus tard.

2. Normes électrotechniques Recommandées

Pour **créer, mettre à jour et supprimer les données** des normes électrotechniques recommandées pour l'adoption par les Membres de l'AFSEC.

Base de données des normes adoptées pour les pays de l'AFSEC

Langue Français

AFSEC Utilisateur SuperAdministrator: Admin **Se déconnecter**

AFSEC Normes recommandées pour l'adoption commune

Menu AFSEC Normes recommandées Autres normes Pays Utilisateurs Importer

Taille de la page: 100 Filtre: Filtrer Filtré 100 sur 100 Total des Normes Recommandées

Ajouter Norme Recommandée + Exporter vers CSV/Excel

Numéro de référence	Type	Recommandé par l'AFSEC	Édition	État	Titre	Organisation	Langue	AFSEC TC	Date de publication	Les pays ont adoptés	Mettre à jour	Supprimer
AFSEC 01.2018	Régional	Oui	1	Actif	Guide for application of standards for rail electrification in Africa	AFSEC	Anglais-Français	10	2018	1		
LN 50095-12011	Régional	Oui	1	Actif	Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148	LN	Anglais	0/1	2012	1		

Nous avons un bouton pour ajouter une nouvelle norme recommandée par l'AFSEC et un formulaire avec les données suivantes à remplir apparaîtra:

Insérer les détails de la norme

Numéro de référence:

Type:

IEC Régional Norme d'origine nationale Autres sources de normes

Édition:

État:

Titre:

Organisation:

Langue:

TC:

Date de publication:

Lien vers la norme (facultatif):

- Numéro de référence : Par exemple, CEI 60335-2-6 2014
- Type : CEI, norme régionale ou norme locale et normes d'autres Sources. Dans ce dernier cas, nous devons détailler ces sources.
- Édition de la norme.
- État : en vigueur ou supprimée

- Titre/Description de la norme : par exemple, Appareils électrodomestiques et analogues – Sécurité – Partie 2-6: Exigences particulières pour les cuisinières, les tables de cuisson, les fours et les appareils fixes analogues
- Organisation : Par exemple, IEC, ISO, AFSEC, etc.
- Langue : Anglais, Français, etc.
- TC : Le Comité technique en charge de la norme.
- Date de publication : Année de la date de publication de la norme
- Lien vers la norme : si il existe, pour voir la norme en pdf par exemple.


Pour chaque norme recommandée à l'adoption commune par l'AFSEC déjà enregistrée dans la base de données, nous avons deux boutons pour que l'Administrateur ADSEC puisse mettre à jour et supprimer cette information.

3. *Autres normes non encore recommandées par l'AFSEC*

L'administrateur AFSEC peut mettre à jour et supprimer les données des normes non encore recommandées par l'AFSEC associées aux pays et voir le nombre de pays qui ont adopté l'une de ces normes.

Langue: Français

AFSEC Utilisateur SuperAdministration: Admin Se déconnecter



Compliation des normes en usage dans les pays membres de l'AFSEC

Menu AFSEC Normes recommandées **Autres normes** Pays Utilisateurs Importer

Taille de la page: 100 Filtré: 2478 sur 2478 Total des Normes Recommandées

[Exporter vers CSV/Excel](#)

Numéro de référence	Type	Recommandé par l'AFSEC	Edition	État	Titre	Organisation	Langue	AFSEC TC	Date de publication	Les pays ont adopté	Mettre à jour	Supprimer
ARP 022	Norme d'origine nationale	Pas encore	1	Actif	Guidelines for the modification of luminaires for tubular fluorescent lamps to retrofit T8 LED tubular lamps or T5 semi-luminaires	SAH3	Anglais	064-02	2014	1	✎	✖
ARP 030	Norme d'origine	Pas encore	2	Actif	Guidelines for the installation and maintenance of street lighting	SAH3	Anglais	004-02	2014	1	✎	✖

Il est important de dire que la forme des données à mettre à jour sera la même que lorsque nous ajoutons une nouvelle norme recommandée. Et quand on clique sur les pays qui ont adopté une norme dans cette liste, nous pouvons voir plus d'informations sur cette adoption :

DATABASE OF THE AFRI

52.56.70.109/AFSECDatabase/Index.html#/home/Adopted/1671/ARP%20032

Base de données des normes adoptées pour les pays de l'AFSEC

Langue Français

AF SEC Utilisateur SuperAdministrator: Admin [Se déconnecter](#)

Liste des pays de l'AFSEC qui ont adopté la norme

AFSEC ARP 032



Menu AFSEC Normes recommandées Autres normes Pays Utilisateurs Importer

Taille de la page: 00

Filter

Filtre: 1 sur 1 Total des normes adoptées

Exporter vers CSV/Excel

Nom	Nom Bureau	Code	Adhésion	Date d'admission	Address of the NC	Numéro national	National TC	Etat des normes	Harmonisé	Laboratoires	Supprimer
	IEC National Committee of South Africa	ZA	Membre en titre		Private Bag X191 Pretoria 0001 +27 12 428 79 11 +27 12 344 15 98	ARP 032		Volontaire	Identique	2	

Premier 1 Dernier

Back

[Se déconnecter](#)

Windows taskbar: Posez-moi une question, 21:45, 25/01/2017

Telles que le numéro National de la norme, le Comité technique National, l'état de la norme et si cette adoption est harmonisée ou non.

4. Les pays membres

Pour créer, mettre à jour et supprimer les informations sur les pays membres (coordonnées)









































Liste des pays membres de l'AFSEC

Menu	AFSEC Normes recommandées	Autres normes	Pays	Utilisateurs	Importer
-------------	---------------------------	---------------	-------------	--------------	----------

Taille de la page: Filtre: **Filtré 13 sur 13 Total des pays**

[Ajouter un pays +](#)

[Exporter vers CSV/Excel](#)

Drapeau	Nom du pays en Anglais	Nom Bureau	Code	Adhésion	Date d'admission	Site Internet	Address of the NCI	Normes adoptées	Laboratoires	Mettre à jour	Supprimer
	Cote d'Ivoire	Côte D'Ivoire - Normalisation (CODINORM)	CI	Membre en titre		http://www.codinorm.ci/	2 plateaux Sidedet - Angle Blvd Latrille / rue K115 Villa 195-(repère SOCOCE 2-plateaux) Abidjan/Cocody yahoussou@cinergies.ci +225 22 41 67 58 +225 22 41 52 97	0	1		
	Democratic Republic of the Congo	Office congolais de contrôle (OCC)	CD	Membre en titre		http://www.occ-rdc.cd/	98, Avenue du Port - B.P. 8614-8806 Kinshasa/Gombe +243 12 211 77 +243 12 219 74	0	0		
	Egypt	Ministry of Electricity & Energy	EG	Membre en titre			Abbassia CAIRO EG-11517 +20 22 261 91 66 +20 22 261 91 66	0	0		
	Ghana	Ghana Standards Authority (GSA)	GH	Membre en titre		http://www.gsa.gov.gh/	Off Tetteh Quashie Interchange - Legon-Madina Road near Gulf House, Okponglo Accra P.O. BOX MB 245 info@gsa.gov.gh +233 302 500065 +233 302 500231	0	0		
	Kenya	Kenya Bureau of Standards (KEBS)	KE	Membre en titre		https://www.kebs.org	Kapili Road, Off Mombasa Road - P.O. Box 54974 Nairobi 00200 info@kebs.org +254 20 605490/6948000 +254 20 609660	31 AFSEC-2 NOAFSEC-29	1		
	Libya	IEC National Committee of the Libya	LY	Affilié		http://www.incsm.org.ly	Libyan National Center for Standardization and Metrology Building - Alfermage - P.O. Box 5178 Tripoli +218 21 4624369/2082 +218 214630885	0	0		
	Namibia	Namibian Standards Institute (NSI)	NA	Membre en titre		http://www.nsi.com.na/	Forum (Old Sanlam) Building - First Floor Suite 115 - 11-17 Dr Frans Indongo Street Windhoek, Namibia P.O. Box. 26364 queny@nsi.com.na +264 61 386400/4011402 +264 61 386454	39 AFSEC-3 NOAFSEC-30	0		
	Nigeria	Standards Organisation of Nigeria (SON)	NG	Membre en titre		http://son.gov.ng/	Plot 13/14 Northern Business District - Victoria Arobieke Street - Lekki Peninsula Scheme 1 YABA, LAGOS PMB 2102 info@son.gov.ng +234 1 27 08 247 +234 1 27 08 246	184 AFSEC-7 NOAFSEC-177	0		
	Rwanda	Rwanda Standards Board (RSB)	RW	Membre en titre		http://www.rsb.gov.rw/	KK 15 Road, 49 PO Box 7099 Kigali info@rsb.gov.rw +250 252 586 103 +250 252 583 305	426 AFSEC-32 NOAFSEC-394	0		
	Senegal	Association Sénégalaise de Normalisation (ASN)	SN	Affilié		http://www.asn.sn/	21 Lotissement - Route du Front de terre Dakar BP 4037 isn@orange.sn +221 827 64 01 +221 827 64 12	0	0		
	South Africa	IEC National Committee of South Africa	ZA	Membre en titre			Private Bag X191 Pretoria 0001 +27 12 428 79 11 +27 12 344 15 68	1667 AFSEC-55 NOAFSEC-1812	3		
	Sudan	Sudanese Standard and Metrology Organization (SSMO)	SD	Membre en titre		http://www.ssmo.gov.sd	Baladia Street - P.O. Box 13573 Khartoum info@ssmo.gov.sd +249 183 775247 +249 183 774852	211 AFSEC-3 NOAFSEC-208	0		
	Zambia	Zambia Bureau of Standards (ZABS)	ZM	Membre en titre		http://www.zabs.org.zm/	PO Box 50259 Ridgeway - Lusaka ZA 15101 +260 1 291 038 +260 1 238 483	270 AFSEC-8 NOAFSEC-284	0		

Premier [«](#) [1](#) [»](#) Dernier

[Retour](#)

[Se déconnecter](#)

Insérer les détails du pays

Nom:

Nom Bureau:

Code ISO Pays:

Date d'admission:

Site Internet:

Adhésion

Lien vers la base de données nationale (facultatif):

Address of the NC:

Ville:

Code Postal:

Courrier:

Les informations à remplir pour tout nouveau pays à inscrire dans la base de données seront :

- Nom du pays
- Nom de l'organisation dans le pays pour la gestion de la normalisation électrotechnique
- Code ISO du pays
- Date d'admission à AFSEC
- Site Web de l'Organisation nationale, si il existe.
- membres de l'AFSEC : statutaire ou Affilié
- Si elle existe, le lien vers la base de données des normes nationales.
- les Coordonnées du membre : l'adresse, ville, Code Postal, Mail, téléphone, Fax.
- Si nous voulons, nous pouvons associer des laboratoires accrédités pour tous les pays.
- Drapeau du pays membre

Certains de ces champs sont obligatoires et d'autres pas.

Dans la liste des pays membres de l'AFSEC, l'administrateur de l'AFSEC peut accéder à l'ensemble des normes recommandées par l'AFSEC et celles qui ne le sont pas encore, qui sont adoptées et la liste des laboratoires accrédités ou pas dans chaque pays.

Sur ce dernier point, seul l'administrateur de l'AFSEC peut supprimer un laboratoire de la base de données AFSEC.

5. Utilisateurs de la base de données

Pour gérer les utilisateurs (ajouter, mettre à jour ou supprimer des utilisateurs) qui peuvent accéder à la base de données basée sur leur rôle (administrateur AFSEC, administrateur du pays).



Utilisateurs de la base de données ACCESS

Menu AFSEC Normes recommandées Autres normes Pays Utilisateurs Importer

Taille de la page:

50

Filtre:

Filter

Filtré 14 sur 14 Total des utilisateurs

[Ajouter un nouvel utilisateur +](#)

[Exporter vers CSV/Excel](#)

Utilisateur	Mot de passe	Rôle	Pays	Mettre à jour	Supprimer
Admin	Crypté	AFSEC SuperAdministrateur			
Coted	Crypté	Administrateur de pays	Cote d'Ivoire		
Congo	Crypté	Administrateur de pays	Democratic Republic of the Congo		
Egypt	Crypté	Administrateur de pays	Egypt		
Ghana	Crypté	Administrateur de pays	Ghana		
Kenya	Crypté	Administrateur de pays	Kenya		
Libya	Crypté	Administrateur de pays	Libya		
Namibia	Crypté	Administrateur de pays	Namibia		
Nigeria	Crypté	Administrateur de pays	Nigeria		
Rwanda	Crypté	Administrateur de pays	Rwanda		
Senegal	Crypté	Administrateur de pays	Senegal		
South	Crypté	Administrateur de pays	South Africa		
Sudan	Crypté	Administrateur de pays	Sudan		
Zambia	Crypté	Administrateur de pays	Zambia		

Premier < 1 > Dernier

[Retour](#)

[Se déconnecter](#)

Les données pour tout nouvel utilisateur dans la base de données seront

- Le nom d'utilisateur,
- Le mot de passe pour accéder à la base de données
- Le rôle : Administrateur AFSEC – Administrateur national
- Le pays : si le rôle est « administrateur National » choisir le pays.

Insérer les détails du pays

Nom:

Nom Bureau:

Code ISO Pays:

Date d'admission:

Site Internet:

Adhésion

Lien vers la base de données nationale (facultatif):

Address of the NC:

Ville:

Code Postal:

Courrier:

4. AUTRES INSTALLATIONS DE LA BASE DE DONNEES

L'administrateur de l'AFSEC peut importer des données sur les normes d'un pays dans la base de données, mais le processus n'est pas facile et il vaut mieux qu'il soit réalisé par le personnel technique informatique.

Pour toutes les listes de la base de données, nous avons **la possibilité de filtrer les informations de plusieurs manières**

Taille de la page: Filtre:

Filtré 105 sur 105 Total des Normes Recommandées

1. Nombre de lignes par page (Page Size - Pagination)
2. Recherche/filtre par n'importe quel mot (ou partie de mot) dans n'importe quelle colonne de la liste
3. Tri des données dans les colonnes en cliquant sur les flèches (haut/bas), dans le titre de chaque colonne **Numéro de référence**
4. Choix de la langue (Anglais/Français)



The screenshot shows a web browser window with the URL `52.56.70.109/AFSECDatabase/index.html#/home/AdoptedStandardsByCountry/11/0`. The page title is "Base de données des normes adoptées pour les pays de l'AFSEC". A language dropdown menu is set to "Français". The user is logged in as "AFSEC Utilisateur SuperAdministrator: Admin" with a "Se déconnecter" button. The main content area shows "Normes adoptées pour les pays" with the AFSEC logo and the flag of Zambia. A navigation menu at the bottom includes "Menu", "AFSEC Normes recommandées", "Autres normes", "Pays", "Utilisateurs", and "Importer". The Windows taskbar at the bottom shows the date as 25/01/2017 and the time as 22:50.

De plus, les listes peuvent être exportées vers MS Excel dans un fichier CSV. Dans MS Excel, nous devons utiliser les Options de Menu suivantes pour voir les données de façon correcte :

Sélectionner la première colonne du fichier CSV et cliquer sur les options de menu suivantes dans MS Excel :

Données-texte en colonnes séparées par des virgules

ANNEX 1.4. USER GUIDE FOR COUNTRY ADMINISTRATOR, ENGLISH AND FRENCH VERSIONS



African, Caribbean and Pacific Group of States

“AFSEC – Harmonization of Electrotechnical Standards in Africa”

“ACP-EU TBT PROGRAMME” (REG/FED/022-667)

Project code: 089-16

User Manual – Country Administrator

20/01/2017



In consortium with



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2.	THE AFSEC DATABASE	3
3.	MAIN FUNCTIONALITIES	3
4.	OTHER FACILITIES OF THE DATABASE	9

1. INTRODUCTION

This document describes the explanations to use the main functionalities to Country Administrator Role in the database.

2. THE AFSEC DATABASE

One of the main objectives of this project is the implementation of the Database of Electrotechnical Standards of the AFSEC Members. In a general way, that Database will allow to:

- Propose a **list of recommended standards for adoption by AFSEC** to their members.
- **Manage for each AFSEC member country, their adopted standards, accredited laboratories and contact information.**
- Define three types of roles to access to the Database:
 - **At AFSEC level for:**
 - Introducing new country members in the database.
 - Introducing new recommended Electrotechnical Standards
 - Introducing users which can access to the database with different roles.
 - **At each national committee level for:**
 - Adopting any recommended standard by AFSEC.
 - Create and associate new own electrotechnical standards not yet recommended by AFSEC.
 - Manage the contact information of the AFSEC member country.
 - Add accredited or not accredited laboratories to the country.
 - **At public access:**
 - View the references of all the adopted standards for each AFSEC Member Country.
 - View the references of all the recommended standards for adoption by AFSEC
 - Export all these data to Excel.

3. MAIN FUNCTIONALITIES

1. Database Access

We will have a specific screen to access the Database in a private mode. In this case for Country Administrator.



Welcome:

Username

Password

And where we can select the language of the Database, in English or in French and introduce our username and password to be authenticated by the application.

AFSEC Administrator will be the one responsible for giving the correct credentials to the country to facilitate the access, as will be seen later.

2. Recommended Electrotechnical Standards by AFSEC

To adopt an AFSEC recommended standard filling in the following data:



Page Size: Filter: Filtered 50 of 50 Total Recommended Standards

[Export to CSV/Excel](#)

Reference Number	Type	Recommended by AFSEC	Edition	Status	Title	Organization	Language	AFSEC IC	Publication Date	Countries have adopted	Adopted by Country
AF-SEC 012016	Regional	Yes	1	Active	Guide for application of standards for rural electrification in Africa	AFSEC	English-French	10	2016	1	<input type="button" value="+"/>
IEC 01970-450:2013	IEC	Yes	1	Active	Energy management system application program interface (EMS /API) Part 456. Solved power system state profiles	IEC	English-French	57	2013	0	<input type="button" value="+"/>

Insert Standard Adoption Into Database AFSEC 01:2016

National Number:

It's required

National TC:

It's required

Status of Standard:

It's required

Harmonized:

- National Number of the Standard
- National Technical Committee
- Status of Standard: Compulsory or Voluntary
- Harmonized: Identical or With Modifications.

Too, in the list of adopted standards by the country (My Country Option Menu) the Administrator of the country could update the information of any adoption or disassociate any adopted standard by the country.

Menu AFSEC Recommended Standards Other Standards **My Country**

Page Size: Filter: Filtered 1667 of 1667 Total Adopted Standards

[Export to CSV/Excel](#)

Reference Number	Type	Recommended by AFSEC	Edition	Status	Title	Organization	Language	TC	Publication Date	National Number	National TC	Status of Standard	Harmonized	Update Adoption of Standard	Disassociate
ARP 032	Home-Grown	Not Yet	1	Active	Guidelines for the modification of luminaires for tubular fluorescent lamps to retro fit LED tubular lamps or T5 semi-luminaires	SANS	English	004-02	2014	ARP 032		Voluntary	Identical		

3. Other Standards not yet recommended by AFSEC

To adopt a new own standard not recommended by AFSEC (add for any country in the database), filling in the same data that for any standard plus several fields more:

Any country can add a new standard not yet recommended for common adoption by AFSEC (with update and delete operations) and any other country can adopt the same. The fields to fill in when the National Administrator clicks on “the Add New Standard”

Insert Standard Details Into Database

Reference Number:

Type:
 IEC Regional Home Grown Other sources of standards

Edition:

State:

Title:

Organization:

Language:

TC:

Publication Date:

National Number:

National TC:

Status of Standard:

Harmonized:

Link to standard (optional):

- Reference Number: For Example, IEC 60335-2-6 2014
- Type: IEC, Regional or Homegrown Standard and Other Sources for Standards. In this last case, we must detail those sources.
- Edition of the Standard.
- State: Active or Withdrawn
- Description/Title of the Standard: For example, Household and similar electrical appliances – Safety – Part 2-6: Particular requirement for cooking ranges, hobs, ovens and similar appliances Organization: For Example, IEC, ISO, AFSEC, etc.
- Language: English, French, etc.
- TC: Technical Committee of the Standard.
- Publication Date: Year of the publication date of the standard
- National Number of the Standard
- National Technical Committee of the Standard
- Status of Standard, Compulsory or Voluntary
- Harmonized, Identical or with modifications
- Link to standard: If exists, to see the standard in pdf for example

4. Country Information


To update the contact information of the Country, see the list of adopted standards (the adoption can be updated or deleted) and manage the main contacts of the Country:

Flag	Country Name	Name Office	Code	Membership	Admission Date	Website	Address of the NC	Adopted Standards	Laboratories	Update
	South Africa	IEC National Committee of South Africa	ZA	Statutory			Private Bag X191 Pretoria 0001 +27 12 428 79 11 +27 12 344 15 68	1667 AFSEC:55 NOAFSEC:1812	2	



Title	Type	Recommended by AFSEC	Edition	State	Description	Organization	Language	TC	Publication Date	National Number	National TC	Status of Standard	Harmonized	Update Adoption of Standard	Disassociate
CISPR 11	IEC	Yes	5.1	Active	Industrial scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement	IEC	English	Electrical and Electronic	2016	SDS 746		Compulsory	Identical		


If we click on the name of the country, we can manage the information of the main contacts of the National Committee of the Country.



Contacts Technical Committee
AFSEC South Africa





Menu AFSEC Recommended Standards Other Standards **My Country**

AFSEC Country South Africa



IEC National Committee of South Africa
Private Bag X191
Pretoria
0001
[Send Mail](#)
Telephone: +27 12 428 79 11
Fax: +27 12 344 15 68

[Add Contact +](#) [Export to CSV/Excel](#)

Name	Surname	Role	Title		Update	Delete
Mr Sadm	Blisscon	President	National Committee of South Africa	Send Mail		
Mr Pau	Johnson	Secretary	National Committee of South Africa	Send Mail		

So, we have buttons to add a new contact, or update its information or delete any main contact of that country.

The form to fill in to add a new contact has the following fields:

Insert Contact Details Into Database

Name:

Surname:

Description:

Role:



Mail:

Add into Database
Reset
Cancel

- Name and Surname of Contact
- Description of Contact Organization
- Role in the Organization of Contact
- Contact Mail





5. Laboratories Information

To create, update and delete the data of laboratories that can be accredited or not in the country of the Administrator:

Flag	Country Name	Name Office	Code	Membership	Admission Date	Website	Address of the NC	Adopted Standards	Laboratories	Update
	South Africa	IEC National Committee of South Africa	ZA	Statutory			Private Bag X191 Pretoria 0001 +27 12 428 79 11 +27 12 344 15 68	1667 AFSEC:55 NOAFSEC:1812	2	

Add Laboratory +
Add Accredited Laboratory to Country +

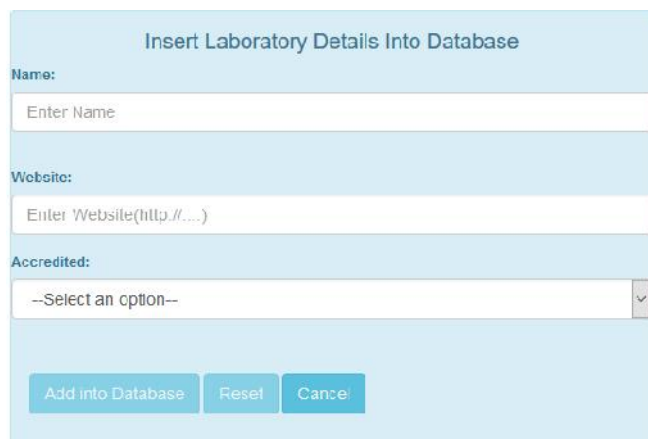
[Export to CSV/Excel](#)

Name	Website	Accredited	Update	Delete Accredited Lab of Country
SABS Commercial SOC Ltd- Rotating machines	https://www.sabs.co.za/TestingIndex.asp	Yes		
WCT (PTY) LTD TIA TEST AFRICA	http://www.testafrica.co.za	Yes		

The Country Administrator can create a new lab to be associated to the country or can associate a lab yet registered in the database.

Only the AFSEC Super Administrator could delete of the Database any Lab.

The form to add a new lab has the following fields:



- Name of the Laboratory
- Web of the Laboratory
- If the laboratory is accredited or not by the country.

The Country Administrator can update or delete the information of lab association to its country by the proper buttons in the list.

4. OTHER FACILITIES OF THE DATABASE

Any public visitor can access the Database to be informed about **Recommended Standards by AFSEC, the Member Countries of AFSEC** (main contacts, adopted standards, accredited laboratories), **the countries that have adopted one standard, the number of standards adopted by one country**, etc.

In any list of the database, **we will have the possibility to filter the information by several ways:**



1. Number of lines by page (Page Size - Pagination)
2. Search/Filter by any word (or sub word) in any column of the list
3. Order the data in columns by click on arrows (Up/Down), in the title of each column. Title↑↓
4. Choice of the language (English/French)

On the other hand, any list can be exported to MS Excel in a CSV file. In MS Excel, we must use the following Menu Options to see the data in a correct way:

Select the first column of the CSV File and then click on the following menu options in MS Excel:

Data-Text in Columns-Separated by commas.



***Groups d'Etats Africains, des Caraïbes
Et du Pacifique***

**“AFSEC – Harmonisation des normes électrotechniques
en Afrique”**

**“ACP-EU TBT PROGRAMME”
(REG/FED/022-667)**

Code Projet: 089-16

Manuel de l'Utilisateur – Administrateur National

20/01/2017



en consortium avec



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1. INTRODUCTION

Le présent document décrit les explications pour utiliser les fonctionnalités principales au rôle d'administrateur de pays dans la base de données.

2. LA BASE DE DONNEES AFSEC

L'un des principaux objectifs de ce projet est la mise en œuvre de la base de données Normes électrotechniques des membres de l'AFSEC. D'une manière générale, cette base de données permettra de :

- Proposer **une liste des normes recommandées pour adoption par l'AFSEC** à leurs membres.
- **Gérer pour chaque pays-membre de l'AFSEC, les normes qu'ils ont adoptées, les laboratoires accrédités et leurs coordonnées.**
- Définir trois types de rôles pour accéder à la base de données :
 - **Au niveau de l'AFSEC pour :**
 - Inclure de nouveaux pays membres dans la base de données.
 - Introduire de nouvelles normes électrotechniques recommandées
 - Introduire des utilisateurs qui peuvent accéder à la base de données avec des rôles différents.
 - **Au niveau de chaque Comité national pour :**
 - Adopter une norme recommandée par l'AFSEC.
 - Créer et associer de nouvelles normes électrotechniques non encore recommandées par l'AFSEC.
 - Gérer les informations de contact des pays membre de l'AFSEC.
 - Ajouter les laboratoires des pays, qu'ils soient accrédités ou non.
 - **à l'accès du public pour pouvoir**
 - consulter les références de toutes les normes adoptées par chaque pays membre de l'AFSEC.
 - Identifier toutes les normes recommandées pour adoption par l'AFSEC
 - Exporter toutes ces données vers Excel.

3. PRINCIPALES FONCTIONNALITÉS

1. *Base de données Access*

Nous aurons un écran spécifique pour accéder à la base de données en mode privé. Dans ce cas pour l'administrateur national.



Bienvenue:

Nom d'utilisateur

Mot de passe

Et où nous pouvons sélectionner la langue de la base de données, en anglais ou en Français et introduire notre nom d'utilisateur et mot de passe pour être authentifié par l'application.

L'administrateur AFSEC sera celui qui est chargé de donner les informations d'identification correctes des pays pour leur faciliter l'accès, comme nous le verrons plus tard.

2. Les normes électrotechniques recommandées par l'AFSEC

Pour adopter **Les normes recommandées par l'AFSEC** il convient de renseigner les données suivantes:



Menu | AFSEC Normes recommandées | Autres normes | Mon Pays

Taille de la page: Filtrer: Filtré: 50 sur 50 Total des Normes Recommandées

[Exportez vers CSV/Excel](#)

Numéro de référence	Type	Recommandé par l'AFSEC	Édition	État	Titre	Organisation	Langue	AFSEC TC	Date de publication	Les pays ont adopté	Adopté par pays
AI SLC 012/15	Régional	Oui	1	Actif	Guide for application of standards for rural electrification in Africa	AI SLC	Anglais-Français	10	2015	1	<input type="button" value="+"/>
IEC 31970-155 2013	IEC	Oui	1	Actif	Energy management system application program interface (EMS-ACI) - Part 456: Solved power system state profiles	IEC	Anglais-Français	57	2012	0	<input type="button" value="+"/>

Insérer l'adoption des normes AFSEC 01:2016

Numéro national:
Entrer Numéro national


National TC:
Entrer National TC

État des normes:
--Choisir une option--

Harmonisé:
--Choisir une option--

- Numéro national de la norme
- Comité Technique National
- Statut de norme : obligatoire ou volontaire
- Harmonisé : Identique ou avec des Modifications.

De plus, dans la liste des normes adoptées par le pays (Option Menu mon pays) l'administrateur national pourra mettre à jour les informations de toute adoption ou supprimer toute norme adoptée par le pays.



Normes adoptées pour les pays

South Africa

Menu | AFSEC Normes recommandées | Autres normes | **Mon pays**

Taille de la page: 500 | Filtre: Filtre | Filtre: 1667 sur 1667 Total des normes adoptées

[Exporter vers CSV/Excel](#)

Numéro de référence	Type	Recommandé par l'AFSEC	Édition	État	Titre	Organisation	Langue	Date de publication	Numéro national	National TC	État des normes	Harmonisé	Mise à jour Adoption de la norme	Dissocier
ARP 332	Norme d'origine nationale	Pas encore	1	Actif	Guidelines for the modification of luminaire for tubular fluorescent lamps to retrofit LED tubular lamps or T5 semi-luminaires	SANS	Anglais	06-02-2014	ARP 332		Volontaire	Identique		

3. *Autres normes non encore recommandées par AFSEC*

Pour adopter une nouvelle norme non recommandée par AFSEC (ajouter pour tout pays dans la base de données), remplir les mêmes données que pour toute autre norme, et plusieurs autres champs :



Compilation des normes en usage dans les pays membres de l'AFSEC

Menu AFSEC Normes recommandées Autres normes Mon Pays

Taille de la page: 100 Titre: Filtre: Filtré 866 sur 866 Total des Normes Recommandées

Ajouter Nouvelle norme + Exporter vers CSV/Excel

Numéro de référence	Type	Recommandé par l'AFSEC	Fabric	État	Titre	Organisation	Langue	AFSEC TC	Date de publication	Les pays ont adopté	Mettre à jour	Supprimer	Adopté par pays
CISPR 11	IEC	Pas Encore	5.1	Actif	Industrial scientific and medical equipment. Radio frequency disturbance characteristics: limits and methods of measurement	IEC	Anglais	Electrical and Electronic	2016	1			

Chaque pays peut ajouter une nouvelle norme qui n'est pas encore recommandée par l'AFSEC pour adoption commune (avec possibilité de mise à jour et de suppression) et tout autre pays peut adopter la même norme.

Les champs à remplir lorsque l'administrateur national clique sur le bouton « Ajouter une nouvelle norme » sont :

Insérer les détails de la norme

Numéro de référence:

Type:

IEC
 Régional
 Norme d'origine nationale
 Autres sources de normes

Édition:

État:

Titre:

Organisation:

Langue:

TC:

Date de publication:

Numéro national:

National TC:

État des normes:

Harmonisé:

Lien vers la norme (facultatif):

- Numéro de référence : Par exemple, CEI 60335-2-6 2014
- Type : CEI, norme régionale ou norme locale et normes d'autres Sources. Dans ce dernier cas, nous devons détailler ces sources.
- Édition de la norme.
- État : en vigueur ou supprimée
- Titre/Description de la norme : par exemple, Appareils électrodomestiques et analogues – Sécurité – Partie 2-6: Exigences particulières pour les cuisinières, les tables de cuisson, les fours et les appareils fixes analogues
- Organisation : Pour exemple, IEC, ISO, AFSEC, etc.
- Langue : Anglais, Français, etc.
- CT : Le Comité technique de la norme.
- Date de publication : Année de la date de publication de la norme
- Numéro national de la norme
- Comité Technique National de la norme
- Statut de norme, obligatoire ou volontaire
- Harmonisé, identique ou avec des modifications
- Lien vers la norme : si il existe, pour voir, par exemple la norme au format PDF

Informations sur le pays

Pour mettre à jour les informations de contact du pays, voir la liste des normes adoptées (l'adoption peut être mise à jour ou supprimée) et gérer les contacts principaux du pays :


Drapeau	Nom du pays en Anglais	Nom Bureau	Code	Adhésion	Date d'admission	Site Internet	Address of the NC	Normes adoptées	Laboratoires	Mettre à jour
	South Africa	IEC National Committee of South Africa	ZA	Membre en titre			Private Bag X191 Pretoria 0031 +27 12 420 79 11 +27 12 344 15 60	1657 AFSEC:63 NCAFSEC:1012	3	

Si l'on clique sur le nom du pays, nous pouvons gérer les informations des contacts principaux du Comité National du pays.

Base de données des normes adoptées pour les pays de l'AFSEC


Langue: Français

Utilisateur: South Pays:South Africa [Se déconnecter](#)

 Contacts Comité technique
South Africa





Menu AFSEC Normes recommandées Autres normes Mon Pays

Pays AFSEC South Africa



IEC National Committee of South Africa
Private Bag X191
Pretoria
0001
[Envoyer un mail](#)
Téléphone: +27 12 428 79 11
Fax: +27 12 344 15 68

[Ajouter le contact +](#) [Exporter vers CSV/Excel](#)

Nom	Nom de famille	Rôle	Titre		Mettre à jour	Supprimer
Mr Sadhir	Bissoon	President	National Committee of South Africa	Envoyer un mail		
Mr Paul	Johnson	Secretary	National Committee of South Africa	Envoyer un mail		

[Retour](#) [Se déconnecter](#)

Nous avons donc des boutons pour ajouter un nouveau contact, ou mettre à jour les informations ou supprimer n'importe quel contact principal de ce pays.

Le formulaire à remplir pour ajouter un nouveau contact comporte les champs suivants :

Insérer les coordonnées

Nom:

Nom de famille:

Titre:

Rôle:

Courrier:

- Nom et prénom du Contact
- Description du Contact dans l'organisation
- Rôle du Contact dans l'organisation
- Mail du Contact

5. Informations sur les laboratoires

Pour créer, mettre à jour et supprimer les données des laboratoires qui peuvent être accrédités ou non dans le pays de l'administrateur :

Drapeau	Nom du pays en Anglais	Nom Bureau	Code	Adhésion	Date d'admission	Site Internet	Address of the NC	Normes adoptées	Laboratoires	Mettre à jour
	South Africa	ICC National Committee of South Africa	ZA	Membre en titre			Private Bag 1191 Pretoria 0001 127 12 420 79 11 127 12 344 15 60	1667 AFSEC:51 NDAFSEC:1812		

Ajouter un laboratoire +
Ajouter un laboratoire enregistré à un pays +

Nom	Site Internet	Accrédité	Mettre à jour	Supprimer le laboratoire accrédité du pays
SABS Commercial SOC Ltd NETFA	https://www.sabs.co.za/Electrical-and-Services/Services/NETFA/index.asp	Oui		
SADG Commercial SOC Ltd- Rotating machines	https://www.sabs.co.za/Testing/index.asp	Oui		
WCT (PTY) LTD T/A TEST AFRICA	http://www.testafrica.co.za	Oui		

L'administrateur national peut créer un nouveau laboratoire associé au pays mais peut aussi associer un laboratoire déjà enregistré dans la base de données.

Seul l'administrateur de l'AFSEC peut supprimer un laboratoire de la base de données.

Le formulaire pour ajouter un nouveau laboratoire comporte les champs suivants :



- Nom du laboratoire
- Web du laboratoire
- Si le laboratoire est accrédité ou non par le pays.

L'administrateur national peut mettre à jour ou supprimer les informations d'association de laboratoire à son pays par les boutons appropriés dans la liste.

4. AUTRES DISPOSITIONS DE LA BASE DE DONNEES

Tout visiteur public peut accéder à la base de données pour être informé sur **Les normes recommandées par l'AFSEC, les pays membres de l'AFSEC** (contacts principaux, les normes adoptées, les laboratoires accrédités), **les pays qui ont adopté une norme, le nombre des normes adoptées par un pays**, etc.

Dans toute liste de la base de données, **il est possible de filtrer les informations de plusieurs manières :**



Nombre de lignes par page (Page Size - Pagination)

1. Recherche/filtre par n'importe quel mot (ou partie de mot) dans n'importe quelle colonne de la liste
2. Tri des données dans les colonnes en cliquant sur les flèches (haut/bas), dans le titre de chaque colonne.
3. Choix de la langue (Anglais/Français)

De plus, toutes les listes peuvent être exportées vers MS Excel dans un fichier CSV. Dans MS Excel, nous devons utiliser les Options de Menu suivantes pour voir les données de façon correcte :

Sélectionnez la première colonne du fichier CSV et trinquet puis sur les options de menu suivantes dans MS Excel :

Données-texte en colonnes séparées par des virgules.

ANNEX 2. INFORMATION IN RELATION TO ALL AFRICAN ELECTROTECHNICAL LABORATORIES.

Annex 2 includes the following documents:

Annex 2.1. Short questionnaire for assessment of laboratories who could get support for accreditation

Annex 2.2. Long questionnaire for assessment of laboratories who could get support for accreditation

Annex 2.3. Content of a typical business plan for laboratories

Annex 2.4. Suggestions for the classification criteria to get accreditation support

Annex 2.5. Completed questionnaires by participant laboratories.

ANNEX 2.1. SHORT QUESTIONNAIRE FOR ASSESSMENT OF LABORATORIES WHO COULD GET SUPPORT FOR ACCREDITATION

Questionnaire for electrotechnical laboratories

The purpose of this questionnaire is to get an initial idea of the capacities (e.g. to which IEC standard they can perform tests) of the accredited electrotechnical laboratories in AFSEC member countries.

1. Identification

1.1	Name of the laboratory			
1.2	Address			
1.3	Telephone N°			
	Mobile N°			
1.4	E-mail			
1.5	Name of responsible contact person			
1.6	Website of the organisation			
1.7	Name and title of the senior executive of the laboratory			
1.8	Do you operate	TESTING?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
		Certification?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
		Inspection?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

2. Scope

2.1	International IEC test standards covered: (add lines as required)		
No (1)	Product or material (2)	Activity/Test method (3)	IEC test standard number (4)

<p>EXPLANATION</p> <p>In column 1 enter a serial number, starting with 1.</p> <p>In column 2 enter which (groups of) products and materials are tested. Use the customary classifications in your sphere of activity.</p> <p>In column 3 enter the activities involved by stating the parameters, components that are measured and the techniques that are used. If it is not possible to give an individual activity, please describe the class of activity as clearly and accurately as possible.</p> <p>In column 4 enter the IEC test standard.</p>			

3. Status of the organisation

3.1	Type of organization	Association	<input type="checkbox"/>
		Private	<input type="checkbox"/>
		Owned by the state	<input type="checkbox"/>
		Private but supported by the government	<input type="checkbox"/>
		Others, specify in 3.2	<input type="checkbox"/>
3.2	The status of the organization (expressed in laws, decrees, statutes of association, rules of the procedure, or in other ways)		
3.3	Accreditations or equivalent official recognitions? (reference No of accreditation, ISO/IEC standard, Name accreditation body, Date of accreditation/recognition document)		

4. Testing

4.1	Any testing subcontracted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	If yes please specify		

5. Other

5.1	Does your company/organisation has established a Business Plan? If yes provide details ¹	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5.2	Does your staff participate in IEC standardisation development or follow-up?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

¹ The Business Plan may be added as a separate annex to this questionnaire. Due to reasons of confidentiality, the Business Plan may be in executive format (e.g. 2 pages)

5.3	Please inform about other relevant facts you may feel important as well as suggestions in the frame of this project.	
-----	--	--

I attach herewith following annexes:

- Business Plan of the company/organisation (if available)

City:..... Country:..... Date:

ANNEX 2.2. LONG QUESTIONNAIRE FOR ASSESSMENT OF LABORATORIES WHO COULD GET SUPPORT FOR ACCREDITATION

Questionnaire for electrotechnical laboratories/other CABs (Conformity Assessment Bodies)

The purpose of this questionnaire is to get an initial idea of the capacities of the potential electrotechnical laboratories or other CABs in AFSEC member countries and their interests to get accredited, so that they may be entitled to get support for their accreditation.

The questionnaire is not intended to assess the laboratory/other CAB according to full accreditation requirements.

1. Identification

1.1	Name of CAB			
1.2	Address			
1.3	Telephone N°			
	Mobile N°			
1.4	E-mail			
1.5	Name of responsible contact person			
1.6	Website of the organisation			
1.7	Name and title of the senior executive of the CAB			
1.8	Do you operate	<u>TESTING?</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
		Certification?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
		Inspection?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

2. Scope

2.1	International test standards covered:	
-----	---------------------------------------	--

	(to be given here below or in an annex)			
No (1)	Product or material (2)	Activity/Test method (3)	External/internal reference number (4)	Frequency (5)
EXPLANATION				
<p>In column 1 enter a serial number, starting with 1.</p> <p>In column 2 enter which (groups of) products and materials are tested. It is important that you use the customary classifications in your sphere of activity.</p> <p>In column 3 enter the activities involved by stating the parameters, components that are measured and the techniques that are used. If it is not possible to give an individual activity, you must describe the class of activity as clearly and accurately as possible.</p> <p>In column 4 enter the standard test procedures where applicable (ISO, IEC, etc). You can also enter your own test methods. Also enter the internal reference numbers in this column, such as the code of the work instructions for the tests in your laboratory.</p> <p>In column 5 enter the frequency with which the activities are carried out. Please use the following codings: d = once to a few times a day w = once to a few times a week m = once to a few times a month i = incidentally (once to a few times a year).</p>				
2.2	Conformity Assessments or assessments performed according other documents			

	(national standards, national regulations) (to be given here or in an annex)	
--	---	--

3. Status of the organisation

3.1	Type of organization	Association	<input type="checkbox"/>
		Private	<input type="checkbox"/>
		Owned by the state	<input type="checkbox"/>
		Private but supported by the government	<input type="checkbox"/>
		Others, specify in 3.2	<input type="checkbox"/>
3.2	Ownership %	
3.3	The status of the organization(expressed in laws, decrees, statutes of association, rules of the procedure, or in other ways)		
3.4	Accreditations or equivalent official recognitions? (reference No of accreditation, ISO/IEC standard, Name accreditation body, Date of accreditation/recognition document)		
3.5	If the company/organisation is not yet accredited, what are the needs? (Quality manual development, measurement uncertainty definition, validation testing, etc.) (to be given here below or in an annex)		

		Requirements	Standard	Remarks
		General		
		Structure		
		Resources		
		Technical		
		Process		
		Quality Management		

Explanations

Standard: ISO/IEC 17025, ISO/IEC 17020, ISO/IEC 17065, other

Remarks: details of the needs

4. Internal structure and organisation

4.1	Organization chart Please attach to this questionnaire	
4.2	Total number of persons in the organization	
4.3	a) Number of persons directly involved in testing b) Number of persons directly involved in certification c) Number of persons directly involved in inspection	
4.4	Relationship with stakeholders using or benefiting from your services	
4.5	Provide CVs of the key staff	

4.6	Does the personnel of the organization have to sign a confidentiality declaration?	
-----	--	--

5. Testing

5.1	Any testing subcontracted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	If yes please specify		
5.2	Do you operate internal calibration programs?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5.3	Do you have all the test equipment needed for future activities? If not, provide a list of needed equipment/facilities and cost estimates in annex	Yes <input type="checkbox"/>	No <input type="checkbox"/>

6. Certification

6.1	Any certification tasks subcontracted? If yes please specify	Yes <input type="checkbox"/>	No <input type="checkbox"/>
6.2	Do you perform product certification?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
6.3	Have you ever developed any product certification scheme?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
6.4	Do you have all resources needed for future activities? If not, provide a list of needed equipment/facilities and cost estimates in annex	Yes <input type="checkbox"/>	No <input type="checkbox"/>

7. Inspection

7.1	Any inspection tasks subcontracted? If yes please specify	Yes <input type="checkbox"/>	No <input type="checkbox"/>
-----	--	------------------------------	-----------------------------

7.2	Do you perform market surveillance activities?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
7.3	Do you have all resources needed for future activities? If not, provide a list of needed equipment/facilities and cost estimates in annex	Yes <input type="checkbox"/>	No <input type="checkbox"/>

8. Other

8.1	Does your company/organisation has established a Business Plan? If yes provide details ²	Yes <input type="checkbox"/>	No <input type="checkbox"/>
8.2	Is your organization involved in (technical) capacity building projects supported by National/Regional/International donors? If yes which?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
8.3	Does your staff participate in standardisation development or follow-up? If yes provide name of TCs and function within that TC	Yes <input type="checkbox"/>	No <input type="checkbox"/>
8.4	Is your company or organisation involved in proficiency testing? If yes, provide details ³ of at least 3 proficiency projects	Yes <input type="checkbox"/>	No <input type="checkbox"/>
8.5	Is your company or organisation involved in the development of the national QI policy? If yes: what is your role in this work?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
8.6	Please inform about other relevant facts you may feel important as well as suggestions for future development and needs.		

² The Business Plan may be added as a separate annex to this questionnaire. Due to reasons of confidentiality, the Business Plan may be in executive format (e.g. 2 pages)

³ Name of the proficiency project, date of execution, role in the project

9. Annexes

I attach herewith following annexes:

- Organisation chart
- CVs of key⁴ staff
- List of needed test equipment and cost estimates
- Business Plan of the company/organisation
-

City:..... Country:.....Date:

⁴ In principle the technical director or other key staff

ANNEX 2.3. CONTENT OF A TYPICAL BUSINESS PLAN FOR LABORATORIES

There is no unique structure for a business plan. Business plans vary with the kind of business described (like services, manufacturing, retail etc.).

To meet its purpose it should have a structure similar to the following one⁵:

1. Title page
2. Introduction
3. Table of Contents
4. Business Description
5. Marketing Plan
6. Business Risk Analysis
7. Personnel Plan
8. Facilities and Equipment/Capital Spending Plan
9. Balance Sheet - Assets and Liabilities
10. Profit and Loss Account
11. Cash-Flow Forecast/Analysis
12. Cost Structures
13. Appendix

Each part shall have its own templates (usually in Excel or similar format) for data entering.

⁵Compare Mike McKeever: How to write a business plan, Berkeley 1990-2012

ANNEX 2.4. SUGGESTIONS FOR THE CLASSIFICATION CRITERIA TO GET ACCREDITATION SUPPORT

1. INTRODUCTION

For classifying the completed questionnaires received from laboratories who might be eligible to get support for accreditation, a number of considerations may be formulated which may be:

- Need of the country for some product test standards (usually these needs are listed in the quality infrastructure policy document or similar of the country);
- The sustainability of the laboratory e.g. did they or are they developing a deep enough business plan at least projecting their sales over a period of 5 years (it is normal that laboratories incubation period is at least 5 years due to the huge investments in people know-how and facilities and/or test equipment);

2. SELECTING PRIORITY SECTOR TECHNICAL LEGISLATION

Proposed selection criteria and classification numbers (1 to 3 while highest number indicates highest classification)

Selection criteria	Classification
Safety critical TRs should have priority over other non-safety critical TRs	3
Technical regulation fully implemented in the country	2
Standards available (including enough active TCs)	2
CABs (especially labs) cover market surveillance actions (testing)	3
Accreditation in place or ongoing and effective covering the scope of the TRs in table A.7.2	1
Sufficient metrology services in place in the country	1
Sector with export potential	2
Sector subject to 3 rd party CA procedures (e.g. some radio equipment)	1

Table A.7.1

List of electrotechnical regulations where a number of harmonised test standards are available. This is a non-exhaustive list and indicates which laboratories, who have test standards in scope of the regulations, may be supported. The priority setting is indicative and may be changed depending the needs of the country (1 to 3 while highest number indicates highest classification):

Technical regulation	Priority
Low voltage equipment	3
Toys	3
Electromagnetic compatibility	2
Non automatic weighing instruments	2

Appliances burning gaseous fuel	3
Hot waters boilers	3
Medical devices	3
ATEX	3
Radio equipment	1
Measuring instruments	2

Table A.7.2

With the above selection criteria in table A.7.1 and A.7.2, a further table is developed and an analysis is jointly performed between the country regulatory authority (the responsible ministry) and the project expert(s) on the basis of this table.

ANNEX 2.5. COMPLETED QUESTIONNAIRES FROM PARTICIPANT LABORATORIES

ANNEX 3. PRIORITIES AND ACTION PLANS OF AFSEC IN RELATION TO ELECTROTECHNICAL CAPACITY.

The priorities and Action Plans validated by Final Workshop Participants are as follows:

- **Year 2017 is established as the African Year of Quality Infrastructure. The Nairobi Workshop could be considered as the first event of the African Year of Quality Infrastructure.**

- **Each AFSEC TC should be assisted in the preparation of guides on use of standards under their responsibility. AFSEC should determine who could assist these TC.**

A first guide of this kind was elaborated by an AFSEC TC on “Electrification of the rural zones”; such guides developed on topics of major priorities could be a real help for the users of the standards.

- **Such guides could be used as a support in an e-learning program to be structured.**

A full program of e-learning should be developed in order to disseminate the information on standards recommended by AFSEC. Such programs need to be structured and in themselves are a full project.

- **AFSEC should start discussion with PAQI regarding how to expand the database to areas other than the electrotechnical field.**

If the beneficiaries play correctly their role by maintaining regularly the database, the database could be given as an example of share of information on standardization and conformity assessment among the AFSEC Members. Such action cannot be limited to the electrotechnical domain and therefore could be expanded to the other industrial fields. That is the reason why PAQI could play a special role in expanding the database to other industries.

- **Regarding laboratories, a technical assistance with the participation of AFRAC should envisage assistance to laboratories for their accreditation.**

Again a complete project in itself: Assistance to laboratories in their process to accreditation. This project has paved the way to the next one in preparing a questionnaire which could be answered by laboratories willing to be accredited. However, getting accreditation is a long process which cannot be fulfilled in some weeks. That is the reason why it is considered that such a theme could be a project in itself which could be financed by another funding source (or any continuation of the TBT Programme).

ANNEX 4. FINAL VALIDATION WORKSHOP REPORT. IN A SEPARATE FOLDER THE FULL VALIDATION WORKSHOP REPORT DOCUMENT IS PROVIDED.

The full Final Validation Workshop Report document was already validated by the PMU of the TBT ACP Programme and written indication has been provided to not include the full document as an annex to this Final Report.

Annex 4 includes the following documents, already provided in Draft Final Report, except annex 4.4.

Annex 4.1. Programme of the Final Validation Workshop.

Annex 4.2. Attendance lists to the final Validation Workshop.

Annex 4.3. Presentations delivered during the Final Validation Workshop.

Annex 4.4. Analysis of questionnaires of evaluation provided by participants and organisers.

ANNEX 4.1. PROGRAMME OF THE FINAL VALIDATION WORKSHOP.

AFSEC-ACP-EU TBT PROGRAMME

AGENDA OF FINAL VALIDATION WORKSHOP

089-16-HARMONISATION OF ELECTROTECHNICAL STANDARDS IN AFRICA VALIDATION WORKSHOP

10th to 11th January 2017

Nairobi, Kenya

DAY 1 – 10TH JANUARY 2017

08h30 - 09h00: **Coffee/tea**

9h00 - 09h30: **Welcome and introduction session**

Welcome by representative of the Kenya National Committee/KEBS

Statements by host institution (AFSEC - P. Johnson).

Who is who?

Statement by Irina Kireeva, Expert in Technical Barriers to Trade (TBT)

Overcoming Non-Tariff Barriers to Trade – Experience in Providing Technical Assistance of the ACP TBT Programme – Focus on Development of Standards

09h30-10h15: ***Results of the Collection and Analysis of the Electrotechnical standards & Technical Regulations used in Africa - proposal of the standards database for AFSEC members***

Marie Christine RADONDE – KE1

10h15-11h00: ***Results of the selection of electrotechnical laboratories or other CABs proposed for support to get accreditation***

Ivan HENDRIKX – KE2

11h00-11h30: ***Break***

11h30-12h30: ***Q&A session on the results***

Marie Christine RADONDE – KE1, Ivan HENDRIKX – KE2.

12h30-14h00: **Lunch**

14h00-15h00: **Recommendation on priorities for AFSEC Members in relation to electrotechnical capacity building (standardization and Conformity Assessment)** Marie Christine RADONDE – KE1, Ivan HENDRIKX – KE2.

DAY 2 – 11TH JANUARY 2017

08h30 - 09h00: **Coffee/tea**

09h00-10h30: **Hands-on training on the standards database for AFSEC members**

Marie Christine RADONDE – KE1, - Mr. Vicente ROMERO - NKE1 – Bernardo Fanjùl - NKE3

10h30-11h00: **Break**

11h00-12h30: **Hands-on training on the laboratory capacities for AFSEC members**

- Ivan HENDRIKX – KE2,

12h30-14h00: **Lunch**

14h00-15h00: **Conclusions and farewell session**

AFSEC Representative, Marie Christine RADONDE – KE1, Ivan HENDRIKX – KE2.

ANNEX 4.2. ATTENDANCE LISTS TO THE FINAL VALIDATION WORKSHOP.

N°	Surname	Name	Position	Airport	Country/organization	Category	Day 1 Attendance	Day 2 Attendance
1	ABDELGHANY	Eng. Mohamed Adel Ahmed Mohamed	NEC representative (Member of the Technical Secretariat of Egyptian National Committee)	Cairo	Egypt NEC	1-AFSEC Member	YES	YES
2	ABDOULAYE	OUEDDO	AFREC Exec Dir	Algiers	AFREC	2- Affiliate Member	YES	YES
3	ACHEMA	Alewu	NEC representative (Chief Standards Engineer/State Head Coordinator)	Murtala Mohammed (Lagos)	Nigeria/NC	1-AFSEC Member	YES	YES
4	ADEWUMI	Oluwasegun	NEC representative (Supervisor electrical unit)	Lagos	Nigeria/NC	1-AFSEC Member	YES	YES
5	ASSA	Alain Constant	CAC member (Directeur de la Normalisation)	Abidjan	Cote d'Ivoire/CAC	1-AFSEC Member	YES	YES
6	BOTO	Boto Eugène	NEC representative (CHEF DE SERVICE NORMALISATION A CI-ENERGIES (MEMBRE DU COMITE ELECTROTECHNIQUE NATIONAL - COTE D'IVOIRE)	Abidjan	Cote d'Ivoire/Ci-NEC	1-AFSEC Member	YES	YES
7	DLAMINI	John	NEC representative (Team leader at Electrotechnical Standards Dep (SABS).	OR Tambo International (Johannesburg)	South Africa/NC	1-AFSEC Member	YES	YES
8	EKLEMET	Ebenezer Afari	Member (GNEC)	Kotoka (Accra)	Ghana/GSA	1-AFSEC Member	YES	YES
9	ELDESTAWY	Khaled	AFSEC Treasurer	Cairo	Egypt/AFSEC exec	5- AFSEC Exec	YES	YES
10	GHOSORE	Remigens	ARSO	N/A	ARSO	5-OTHER	YES	YES
11	GRADWELL	Crystal	AFSEC Secretariat	Johannesburg	SA/AFSEC Sec	5- AFSEC Exec	YES	YES
12	JOHNSON	Paul	AFSEC Executive Secretary	O R Tambo, Johannesburg	S A/AFSEC Sec	5- AFSEC Exec	YES	YES
13	KGOSANA	Kgati Phillip	Senior Standards Writer (AFSEC CAC member)	Johannesburg, OR Tambo International.	South Africa/CAC	1-AFSEC Member	YES	YES
14	KOUTOUA	Claude	AFSEC President	Abidjan	Cote d'Ivoire/AFSEC Exec	5- AFSEC Exec	YES	YES
15	LIASSA	Nkyo Lutaka Lutaka	NEC representative	Kinshasa	D R Congo/NEC	1-AFSEC Member	YES	YES
16	MAHARERO	Nandaemua	NEC representative (standards officer and secretary of NEC in Namibia)	Hosea Kutako	Namibia/NSI	1-AFSEC Member	YES	YES
17	MANIRAKIZA	Patrice	EAPP representative (Power Engineer at EAPP)	Addis Ababa	Ethiopia/EAPP	2- Affiliate Member	YES	YES
18	MANYAME	Rojas	AFSEC 1st VP	Hosea Kutako International Airport, Windhoek, Namibia	Namibia/AFSEC Exec	5- AFSEC Exec	YES	YES
19	MASINZA	Stanslaus	Member of KNCIEC (NEC representative)	N/A	Kenya/NC	1-AFSEC Member	YES	YES
20	MEANWELL	Paul	AFSEC CAC member (Manager - Engineering Governance)	Johannesburg	South Africa/NC	1-AFSEC Member	YES	YES
21	MOHAMED	Eng. Mohamed Widaa A	NEC representative (Head of electronic lab)	Khartoum	Sudan/NEC	1-AFSEC Member	YES	YES
22	MOUTON	Tony	NEC representative (Quality and Mark Scheme Manager)	OR Tambo International Airport, Johannesburg, South Africa	South Africa/NC	1-AFSEC Member	YES	YES
23	MPANGA MBUYA	Gauthier	AFSEC CAC secretary (Chef de Division Développement des Normes Adjoint / Office Congolais de Contrôle "OCC")	Kinshasa	D R Congo/CAC	1-AFSEC Member	YES	YES
24	MUKESHIMANA	Olivier	Standards Officer (CAC Representative)	Kigali	Rwanda/NEC	1-AFSEC Member	YES	YES
25	MULENGA	Izaiah	NEC representative (Standards Officer)	Kenneth Kaunda Int' Airport	Zambia/NEC	1-AFSEC Member	YES	YES
26	MWATHA	Zacheus	Manager, EIT&L Standards (AFSEC CAC Representative)	N/A	Kenya/CAC	1-AFSEC Member	YES	YES
27	NDIAYE	Souleymane	NEC representative (Chef de la Division Electrotechnique à l'Association Sénégalaise de Normalisation (ASN) et je suis le Secrétaire du	Dakar	Senegal/ASN	2- Affiliate Member	YES	YES
28	NIYREDA	Dr Lemba	AFSEC CAC member (ZNEC President)	Kenneth Kaunda Int' Airport	Zambia/CAC	1-AFSEC Member	YES	YES
29	NIYIRINKINDI	Casimir	NEC representative (Quality Assurance Specialist)	Kigali	Rwanda/Rwanda Energy Group (REG)/ Energy Development Corporation Limited (EDCL) (NEC)	1-AFSEC Member	YES	YES
30	ODOUR	Evah	AFSEC 2nd VP	N/A	Kenya/AFSEC Exec	1-AFSEC Member	YES	YES
31	OMAR	Kuta	Member of KNCIEC (NEC representative)	N/A	Kenya/NC	1-AFSEC Member	YES	YES
32	Osman	Intisar Mohamed	Sudan NEC - Sudanese Standards and Metrology Organization (SSMO)	Khartoum	Sudan/NEC	1-AFSEC Member	YES	YES
33	SHIFIDI	Set-son Kondjashili	NEC representative (Technical Executive/ Head of Electrical: Lithon Project Consultants (Pty) Ltd)	Hosea Kutako	Namibia/NEC	1-AFSEC Member	YES	YES
34	THIAM	Papa Ibrahim	Ingénieur électromécanicien Chef du Département Gestion Technique, Direction Distribution Senelec HANN, BP 93, Route des Pères Maristes, Sénégal. Président CEN - Sénégal (NEC representative)	Léopold Sédar Senghor (LSS) –Dakar, Sénégal	Senegal NEC	2- Affiliate Member	YES	YES
35	ZIMBA	Sydney	SAPP representative (Systems Operations Engineer)	Harare	Zimbabwe/SAPP/CAC	2- Affiliate Member	YES	YES
36	ZULU	Dr Akim	NEC representative (Senior Lecturer, Department of Electrical and Electronic Engineering)	Lusaka	Zambia/NEC	1-AFSEC Member	YES	YES
37	RADONDE	Marie-Christine	KE1	France	TBT ACP EXPERTS	Technical Experts Team	YES	YES
38	HENDRIKX	Ivan	KE2	Belgium	TBT ACP EXPERTS	Technical Experts Team	YES	YES
39	ROMERO	Vicente	NKE1	Spain	TBT ACP EXPERTS	Technical Experts Team	YES	YES
40	FANJUL	Bernardo	NKE3	Spain	TBT ACP EXPERTS	Technical Experts Team	YES	YES
41	KIREEVA	Irina	TBT KE	Belgium	TBT ACP PMU	TBT ACP PMU	YES	YES



PARTICIPANT LIST

089-16-HARMONISATION OF ELECTROTECHNICAL STANDARDS IN AFRICA

VALIDATION WORKSHOP

10th January 2016 – Nairobi (Kenya)

NR	Last Name	First Name	Position	Organisation	Country	Signature
1	MUKESHIPANA	Olivier	NEG Secretary & Standards Officer	RSB	Rwanda	
2	Maulon	Tommy	Lead Auditor	MASC	RSA	
3	NYIRAKINDI	CASIMIR	Quality Assurance	REG/EDC	Rwanda	
4	Khaled	Eldestany	Treasurer	AFSEC	EGYPT	
5	VRADONDE	Janie-Christine	KEI	TBT	France	
6	MANIRAKIZA	Patrice	Power Engineer	EAPP	Ethiopia	
7	MULENGA	IZAIAH	STANDARDS OFFICER	ZABS	ZAMBIA	
8	osman	Intisar	Secretary of NEC	SSMO	Sudan	
9	Ali	Mohamed wife	Sudan Cap	SSMU	Sudan	
















This project is funded by the European Union



10	Prof LEASSA Ngy	Mathieu	NEC Representative of DR C	NEC / DR C / SNEZ	D R Congo	
11	N. MAHARÉLO	NANDAMBA	NEC SECRETARY OF NAMIBIA	NSI	NAMIBIA	
12	Ackim ZULU.		NEC VP ZAMBIA		ZAMBIA	
13	Papa Ibrahim	THIAM				
14	THIAM	PAPA IBRAHIM	NEC President of Senegal	Senegal	Senegal	
15	NDIAYE	Souleymane	Senegal NEC Secretary	ASN	Senegal	
16	ABDELGHANY	Mohamed	Egyptian NC	MOEE	EGYPT	
17	MEANWELL	PAUL	S. AFRICA	NC.	S. AFRICA	
18	ZIMBA	SYDNEY	UTILITIES ENGINEER	SAPP	ZIMBABWE	
19	ABDOUCAYE	OUEDDO	Expert	AFREC	ALGERIA	
20	PHILLIP	KGUSANA		SABS	R. S. A	
21	KOUFOUA	Ouade	President	AFSEC	Cote d'Ivoire	
22	JOHN	OLAMINI	S. AFRICA	SABS	RSA	
23	BOTO	EUGENE	NEC - COTE D'IVOIRE		Cote d'Ivoire	
24	ACHOMA	ALFANU	NEC - NIGERIA	SUN/ASIT	NIGERIA	




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25	SHIFIDI	SET-SON	NEC Namibia	LITTON PROJECT CONSULTANTS	NAMIBIA	
26	JOHNSON	Paul	AFSEC Ex Sec	AFSEC	SOUTH AFRICA	
27	WSTANSLAWS	ALWYN MASINZA	KNCEC	KENAS	KENYA	
28	CRADWELL	CRYSTAL	AFSEC SECRETARY	NSEC	S. AFRICA	
29	R. MANYAME	ROJAS	AFSEC VP	AFSEC	NAMIBIA	
30	EICLMEF	RENEZAN ATAMU	GHANA NEC	GHANA NEC	GHANA	
31	NYIRENDA	LEMBA	NEC ZAMBIA	ZABS	ZAMBIA	
32	ASFA	ALAIN CONSTANT	NEC Cote d'Ivoire	COORDINATOR	Cote d'Ivoire	
33	Mwatha	Zachens	NEC KENYA	KEBS	KENYA	
34	IRINA	KIRIWA	TBPAACP Programme		Belgium	
35	VICENTE	ROMERO	EXPERT	EURO-FUNDING	SPAIN	
36	IVAN	HENDRIKX	EXPERT	EURO-FUNDING	BELGIUM	
37	Evva Odun	AFSEC	VP 2nd		KENYA	
38	ADEMMI O.B	OLUNAJEGUN	SUPERVISOR	SON	NIGERIA	
39	M PANGA MBUSA (ex-officio)	AFSEC	CAC SECRETARY	DEC-NEC	D.R. CONGO	

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40	LISSORE	REBBIN	Technical Director	AIRSO	AIRSO	
41	FANSGL	BERNARDO	Non Key Expert	EURO-FUNDING	EURO-FUNDING	
42	KUTA	SMAN	Member	KNIEC		
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PARTICIPANT LIST

089-16-HARMONISATION OF ELECTROTECHNICAL STANDARDS IN AFRICA

VALIDATION WORKSHOP

11th January 2016 – Nairobi (Kenya)

Nº	Last Name	First Name	Position	Organisation	Country	Signature
1	olivier	IRUKESHITANA	NEC Secretary / Standards Officer	RSB	Rwanda	
2	Cosmit	NYIRUKINDI	Quality Assurance	REG/EDCL	Rwanda	
3	IZALIAH	MVLENGA	Standards office	ZABS	ZAMBIA	
4	Mouton	Zhang	Quality	MASC	RSA	
5	ABEMMI	OLWASEGUN	SENIOR STANDARDS OFFICER	SON	NIGERIA	
6	ROTIRO	VICENTE	EXPERT	EU FUNDING	SPAIN	
7	Johnson	Paul	AFSEC E- Soc	AFSEC	S.Africa	
8	CRAWELL	CRYSTAL	INT. LIAISON AFSEC SEC	AFSEC	S.AFRICA	
9	FANJUL VINA	BERNARDO	HOW KEY EXPERT	EURO-FUNDING	SPAIN	

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10	Mecrowell	Paul	NEC Member	S. Africa	S. Africa	
11	ACKIM	ZULU	NEC	Zambia		
12	RADONDE	Agnès Chastie	TBT	FRANCE		
13	NDIAYE	Souleymane	NEC Member	ASN	SENEGAL	
14	THIAM	Papa Ibrahima	NEC member	Sender	SENEGAL	
15	A Li	Mohamed widaa	SSMO Lab	SSMO	sudan	
16	ABDOULAYE	OUEDDO	Expert	AFREC	ALGERIA	
17	OSMAN	Intisar	Sudan-NEC Secretary	SSMO	sudan	
18	KOUTOUA	Oueddo	President	AFSEC	Cote d'Ivoire	
19	Eldestawy	Khaled	Treasurer	AFSEC	EGYPT	
20	MANIRAKIZA	PATRICE	Power Engineer	EAPP	Ethiopia	
21	Mohamed Adel	Mohamed	Egyptian N.C	MOEE	EGYPT	
22	Blamini	JOHN	S. AFRICA	SABS	RSA	
23	NYIRENDA	LEMBA	ZAMBIA NEC	ZABS ZAMBIA	ZAMBIA	
24	MASINZA	STANSLAUS	KNCEC NEC	KENYA	KENYA	




25	KUTA	SMAR	NEZ MEMBER	KNIEC	KENYA	M. Njoroge
26	ACHEM A	ALEWU	NEC NIG	SON	NIGERIA	[Signature]
27	BOTO	EUGENE	NEC-CT	CI-ENERGIES	COTE D'IVOIRE	[Signature]
28	LIASSA NKOUY	Patrick	NEC. DR.C	SNEL/DR.C	DR CONGO	[Signature]
29	ASSA	Alain Constant	NEC- Côte d'Ivoire	COINORDIT	Côte d'Ivoire	[Signature]
30	EUGENI AFARI	EBENUEZE	QWEC	QWEC	GHANA	[Signature]
31	MPANGA M. GAUTHIER	MBUYA	AFSEC	CEU-EDC	D.R CONGO	[Signature]
32	SET-SON	SHAFIDI	NEC - Namibia	LITTON CONSULTANTS	NAMIBIA	[Signature]
33	PHILLIP	KGOSANA		S.A.B.S	SOUTH AFRICA	[Signature]
34	MARYAME	RUSAS	AFSEC VP	AFSEC	GHANA	[Signature]
35	MAHARERO	NANDAEMUA	NEC SECRETARY	NAMIBIA	NAMIBIA	[Signature]
36	ZIMBA	SYDNEY	OPS ENGINEER	ZIMBABWE	ZIMBABWE	[Signature]
37	GISORE	REVIREN	Technical Director	ATLSU	ATLSU	[Signature]
38	Mwatta	Zachary	NEC-KENYA	KEBS	KENYA	[Signature]
39	ODUOR	Eric	AFSEC VP	AFSEC	Kenya	[Signature]



40	Iris Kireeva	TBT Expert	ACPTBT Program		Belgium	Iris Kireeva
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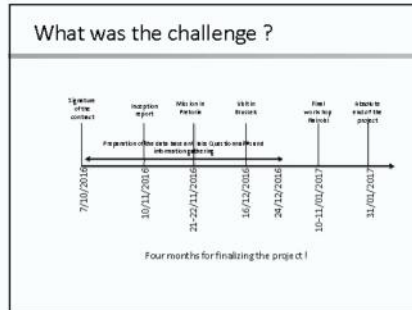
ANNEX 4.3. PRESENTATIONS DELIVERED DURING THE FINAL VALIDATION WORKSHOP.



ACP-EU TBT Programme

089-16
HARMONISATION OF ELECTROTECHNICAL STANDARDS IN AFRICA

Marie-Christine Radonde – Bernardo Fanjul
Nairobi - Kenya
10-11th January 2017



summary

- 1- presentation of the project and its development
- 2- Presentation of the database
- 3- the situation of the project on 11th January 2017
- 4- Next steps

Terms of reference

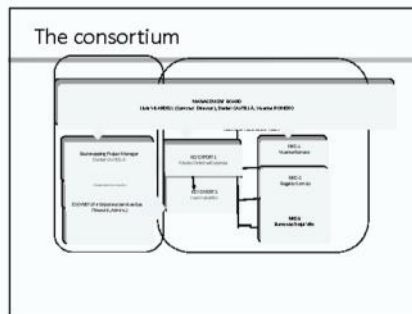
Overall objective:
to increase the capacity of African electrotechnical industry to implement common standards.

Results to be achieved:


- Result 1 – Database of Electrotechnical Standards is prepared and validated by the APEEC Members during the Final Validation Workshop
- Result 2 – Information collected and assessment is made in relation to capacities of the Electrotechnical Laboratories (or other facilities) potentially or actually qualified to be accredited to test electrical products
- Result 3 – Priorities and action plans of APEEC in relation to its future programme of work are identified and validated during the Final Validation Workshop (taking place in Kenya, Nairobi).

Answering these terms of reference will be the core of my presentation!

1 – PRESENTATION OF THE PROJECT AND ITS DEVELOPMENT

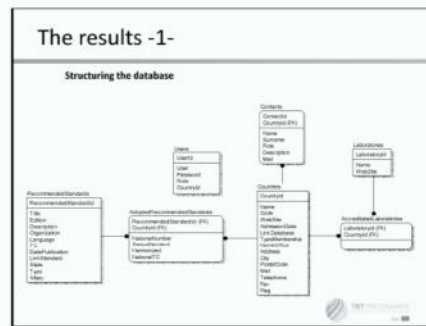


The portrait gallery



Team Members:

- Ulrik VIADELL** - Contract Director
- Daniela CASTELLA** - Technology Project Manager
- Marie-Christine Radonke** - Team leader and Key Expert 1
- Vicente IGAMERO** - Quality Control Officer
- Ivan Hendrix** - Key Expert 2
- Rogelio Garrido** - Key Expert 2
- Arnau Garrandi** - Project Manager
- Bernardo Benjal Villa** - Non Key Expert 1



Ressources

- 1 Team Leader
- 2 Key Experts
- 3 Non Key Experts

The project says : 109 days of work !!

The results -2-

Collecting the Laboratories data via a questionnaire (1)

Questionnaires were sent to each AFSEC Member by the team KE2/NKE2 (Ivan Hendrix and Rogelio Garrido). The results of these answers will be given later on by Ivan Hendrix.

The methodology

Two different topics

- 1 – Structuring a database common to all AFSEC Members and AFSEC Affiliates
- 2 – Collecting Laboratories data involved in Electrotechnical testing in the various countries

Structuring the database

Using models proposed by other International or Regional Organizations comparable to AFSEC – Mainly IEC

Foreseeing a bilingual database (English/French)

Collecting the laboratories data

Establishing questionnaires for identifying the relevant laboratories

The key points for the standardization database for Public access

The objective is :


- for the Public from anywhere in the world,
 - o to find information on the AFSEC members and AFSEC Affiliates,
 - o to allow them to have information on Electrotechnical standardization in Africa, in particular the use of **"RECOMMENDED STANDARDS BY AFSEC"**
- For the African electrotechnical industry, to increase its capacity to implement common standards in support of increasing access to and use of electricity throughout Africa
- To facilitate information of the public on the use of the AFSEC recommended standards by each country,
- to identify if one national standard is an " AFSEC Recommended standard " or not,
- To identify whether a national standard is made compulsory or not,
- To identify laboratories able to make tests in each AFSEC Member or Affiliate

The key points for the standardization database for private access – national administrator


Each AFSEC MEMBER and AFSEC AFFILIATE will have possibility of entering the "private part" of the database, by means of passwords, for:

- updating any data related to its country address, responsible managing persons, accredited laboratories...
- adding new national standard in the database,
- Updating data on adopted standards

The choice of the National Administrator is the responsibility of the Management of the National Electrotechnical Committee



Summary




- The Database and Functionalities
- Types of Access
 - AFSEC Super Administrator
 - Country Administrator
 - Public and General Access

The key points for the standardization database for private access – SUPER AFSEC administrator

The AFSEC "super" administrator will be THE ONLY ONE allowed to:

- o add or remove members from the data base,
- o give password to a national administrator
- o add new AFSEC recommended standards



The choice of the AFSEC Super Administrator is the responsibility of the Management of AFSEC



The Database

One of the main objectives of this project is the implementation of the Database of Electrotechnical Standards of the AFSEC Members. In a general way, that Database will allow to:

- Prepare a list of recommended standards for adoption by AFSEC to their members.
- Manage for each AFSEC member country, their adopted standards, accredited laboratories and contact information.
- Define three types of roles to access to the Database:
 - **All AFSEC level for:**
 - Introducing new country members in the database.
 - Introducing new recommended Electrotechnical Standards
 - For introducing users which can access to the database with different roles.
 - **All each national committee level for:**
 - Adapting any recommended standard by AFSEC.
 - Create and associate new own electrotechnical standards not recommended by AFSEC.
 - Manage the contact information of the AFSEC member country.
 - Add accredited laboratories to the country.
 - **All public access:**
 - View all the adopted standards for each AFSEC Member Country.
 - View all the recommended standards for adoption by AFSEC.
 - Export all these data to Excel.

2 – PRESENTATION OF THE DATABASE

By Bernardo FANJUL



The Database Application

We will have a specific screen to access the Database in a private mode for: AFSEC Super Administrator and Country Administrator:



And where we can select the language of the Database, in English or in French and introduce our username and password to be authenticated by the application.

AFSEC Administrator will be the one responsible for giving the correct credentials to the country to facilitate the access.



AFSEC Super Administrator

Its main functionalities are:

- To create, update and delete the data of recommended electrotechnical standards for adoption by AFSEC Members.



Management Member Countries (AFSEC Super Administrator)

To Create, update and delete the data of member countries (contact information)



Data of AFSEC Recommended Standard (AFSEC Super Administrator)

- Reference Number: For Example IEC 60335-11:2007
- Type: IEC, Regional or Homegrown Standard
- Edition
- Status: Active or Withdrawn
- Description/Title of the Standard: For example *Electricity metering - Payment systems Part 51: Standard transfer specification (STS) - Physical layer protocol for one-way numeric and magnetic card token carriers*
- Organization: For Example, IEC, ISO, AFSEC, etc.
- Language: English, French, etc.
- TC: Technical Committee of the Standard
- Publication Date: Year of the publication date of the standard
- Link to standard: If exists, to see the standard in pdf for example.




Data of AFSEC Country (AFSEC Super Administrator)

- Name of the Country
- Name of the organization in the Country for Electrotechnical standardization Management
- Code ISO of Country
- Admission Date in AFSEC
- Website of the National organization if it exists.
- AFSEC Membership: Affiliate or Statutory
- If it exists, link to National Data base of Standards.
- Contact Information with Address, City, Postal Code, Mail, Telephone, Fax.
- If we want, we can associate Accredited Laboratories to any country.
- Flag of the member country




Compilation of Standards in use in AFSEC member countries (AFSEC Super Administrator)

To update and delete a any standard of the list in use in AFSEC member countries.



Users Management (AFSEC Super Administrator)

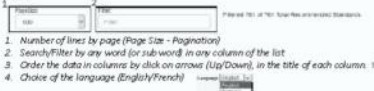
To manage users that gain access to the Database based on their role (AFSEC Super Administrator, Country Administrator)



Public Access

Any visitor can access the Database to be informed about **Recommended Standards by AFSEC, the Member Countries of AFSEC** (main contacts, adopted standards, accredited laboratories), **the countries that have adopted one standard, the number of standards adopted by one country**, etc.

In any list of the database, we **have the possibility to filter the information by several ways**:



1. Number of lines by page (Page Size - Pagination)
2. Search/Filter by any word (or sub-word) in any column of the list
3. Order the data in columns by click on arrows (Up/Down), in the title of each column. (Title)
4. Choice of the language (English/French)

On the other hand, **any list can be exported to MS Excel** in a CSV file.

In MS Excel, we have to use the following Menu Options to see the data in a correct way:
Data-Text in Columns-Separated by comma.

Present situation of the database (1)

- > most countries have provided their national data which was migrated to the database
- > For those who did not do that and have their file on a USB Key, the migration can still be done during the workshop
- > the migration is only possible if the format required by the group of experts is respected

3 – THE SITUATION OF THE PROJECT ON 11th JANUARY 2017



Format of the data to be provided by the AFSEC countries

Number of the Member Country	ISO 3166-1	ISO 3166-2	Date of publication	Number of the standard	Technical reference	Number of the document	Language	Standard type	Standard status	Standard title	Standard description
1	EG	EG	2015	1	EN 12345	1	English	Technical	Active	Standard title	Standard description

Difficulties encountered during the development of the project

The following difficulties were encountered during the development of the project:

- > Delays in getting the data for introduction in the database,
- > Delays in answering the questionnaires for feeding the Laboratories part of the database
- > Time delay due to the Christmas period

Nevertheless, thanks to the use of the modern communication tools (Skype in particular) the deadlines imposed were up till now totally respected


Present situation of the database (2)

- > Hopefully the migration will still be possible before 20th January 2017 – later on it will be to the AFSEC Administrator to make the migration for the remaining countries
- > a toolkit for use of the database has been prepared and will be provided to AFSEC for distribution to its Members and Affiliates



Fulfilling the terms of reference requirements

- **Result 1** – Database of Electrotechnical Standards is prepared and validated by the AFSEC Members during the Final Validation Workshop.
 - the database was prepared
 - the validation of the database still to be done during the hands-on training of 11th January 2017
- **Result 2** – Information collected and assessment is made in relation to capacities of the Electrotechnical laboratories (or other facilities) potentially or actually qualified to be accredited to test electrical products.
 - a detailed explanation of the situation will be given by Key Expert 2 Ivan Hendriks
- **Result 3** – Priorities and action plans of AFSEC in relation to its future programme of work are identified and validated during the Final Validation Workshop (taking place in Kenya, Nairobi).




Proposed action plans

- Year 2017 being the African Year of Quality Infrastructure the Nairobi Workshop could be considered as the first event of this important period.
- Each AFSEC TC should be assisted in the preparation of guides on use of the standards under their responsibility, AFSEC should determine who could assist these TC
- Such guides could be used as support in an e-learning program to be structured
- AFSEC should start discussion with ASSO regarding how to expand the database to other areas than the electrotechnical field
- Regarding laboratories, a technical assistance with the participation of AFRAC should envisage assistance to those laboratories for their accreditation.

These proposals need to be discussed and, if agreed, validated

IN THAT WAY, RESULT 3 WOULD ALSO BE FULFILLED!



4 - NEXT STEPS




Thanks for your attention


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Project funded by the EU at the request of the ACP Group



Next steps

- by 20th January 2017, all AFSEC Members and Affiliates should have provided their data for the standardization part of the Database as well as for the laboratories
- At the end of January 2017, the database will be delivered to AFSEC for importing it in the AFSEC environment
- From that date onwards, it will be up to the AFSEC Administrator and the National Administrators to regularly update the information appearing in the database (a monthly updating is recommended)
- AFSEC and the National Committees will have to nominate the administrators of the system







ACP-EU TBT Programme

089-16 AFSEC – Harmonisation of Electrotechnical Standards in Africa

*Bernardo Fanjul Viña
Nairobi, Kenya
11th to 12th January 2017*

The Database Application


We will have a specific screen to access to Database in a private mode for: AFSEC super Administrator and Country Administrator:



And where we can select the language of the Database, in English or in French and introduce our username and password to be authenticated by the application.

AFSEC Administrator will be the responsible to give the correct credentials to the country to facilitate the access.

Summary



- The Database and Functionalities
- Types of Access
 - AFSEC Super Administrator
 - Country Administrator
 - Public and General Access

AFSEC Super Administrator

Its main functionalities are:

1. Create, Update and Delete the data of recommended electrotechnical standards for adoption by AFSEC Members.



The Database

One of the main objectives of the project is the implementation of the Database of Electrotechnical Standards of the AFSEC Members. In a general way, that Database will allow to:

- Propose a list of recommended standards for adoption by AFSEC to their members.
- Manage for each AFSEC member country, their adopted standards, accredited laboratories and contact information.
- Define three types of right to access to the Database:
 - **At AFSEC level for:**
 - Introducing new country members in the database.
 - Introducing new recommended Electrotechnical Standards
 - For introducing users which can access to the database with different roles.
 - **At each national committee level for:**
 - Adopting any recommended standard by AFSEC.
 - Create and associate new own electrotechnical standards not recommended by AFSEC.
 - Manage the contact information of the AFSEC member country.
 - Add accredited laboratories to the country.
 - **At public access:**
 - View all the adopted standards for each AFSEC Member Country.
 - View all the recommended standards for adoption by AFSEC
 - Export all these data to Excel.



Data of AFSEC Recommended Standard (AFSEC Super Administrator)



- Title: For Example IEC 60355-51:2007
- Type: IEC, Regional or Homegrown Standard
- Edition
- State: Active or Withdrawn
- Description of the Standard: For example Electricity metering - Payment systems Part 5.1: Standard transfer specification (STS) - Physical layer protocol for one-way, unsecured and magnetic card token carriers
- Organization: For example, IEC, ISO, AFSEC, etc.
- Language: English, French, etc.
- TC: Technical Committee of the Standard
- Publication Date: Year of the publication date of the standard
- Link to standard: If exists, to see the standard in pdf for example.

Management Member Countries (AFSEC Super Administrator)

2. **Create, Update and Delete the data of member countries (partial information)**

ID	Country	Code ISO	AFSEC Membership	Admission Date	Website	Contact Information	Accredited Laboratories	Actions
1	Algeria	DZ	Member	2015-10-01	www.dgsc.org.dz	Algiers, Algeria	1	[Edit] [Delete]
2	Angola	AO	Member	2015-10-01	www.dgsc.org.ao	Luanda, Angola	1	[Edit] [Delete]
3	Benin	BJ	Member	2015-10-01	www.dgsc.org.bj	Cotonou, Benin	1	[Edit] [Delete]
4	Burkina Faso	BF	Member	2015-10-01	www.dgsc.org.bf	Ouagadougou, Burkina Faso	1	[Edit] [Delete]
5	Burundi	BI	Member	2015-10-01	www.dgsc.org.bi	Bujumbura, Burundi	1	[Edit] [Delete]
6	Cote d'Ivoire	CI	Member	2015-10-01	www.dgsc.org.ci	Abidjan, Cote d'Ivoire	1	[Edit] [Delete]
7	Egypt	EG	Member	2015-10-01	www.dgsc.org.eg	Cairo, Egypt	1	[Edit] [Delete]
8	Ethiopia	ET	Member	2015-10-01	www.dgsc.org.et	Addis Ababa, Ethiopia	1	[Edit] [Delete]
9	Ghana	GH	Member	2015-10-01	www.dgsc.org.gh	Accra, Ghana	1	[Edit] [Delete]
10	Guinea	GN	Member	2015-10-01	www.dgsc.org.gn	Conakry, Guinea	1	[Edit] [Delete]
11	Guinea-Bissau	GW	Member	2015-10-01	www.dgsc.org.gw	Bissau, Guinea-Bissau	1	[Edit] [Delete]
12	Kenya	KE	Member	2015-10-01	www.dgsc.org.ke	Nairobi, Kenya	1	[Edit] [Delete]
13	Madagascar	MG	Member	2015-10-01	www.dgsc.org.mg	Antananarivo, Madagascar	1	[Edit] [Delete]
14	Mali	ML	Member	2015-10-01	www.dgsc.org.ml	Bamako, Mali	1	[Edit] [Delete]
15	Morocco	MA	Member	2015-10-01	www.dgsc.org.ma	Rabat, Morocco	1	[Edit] [Delete]
16	Mozambique	MZ	Member	2015-10-01	www.dgsc.org.mz	Maputo, Mozambique	1	[Edit] [Delete]
17	Niger	NE	Member	2015-10-01	www.dgsc.org.ne	Niamey, Niger	1	[Edit] [Delete]
18	Nigeria	NG	Member	2015-10-01	www.dgsc.org.ng	Lagos, Nigeria	1	[Edit] [Delete]
19	Rwanda	RW	Member	2015-10-01	www.dgsc.org.rw	Kigali, Rwanda	1	[Edit] [Delete]
20	Senegal	SN	Member	2015-10-01	www.dgsc.org.sn	Dakar, Senegal	1	[Edit] [Delete]
21	Sierra Leone	SL	Member	2015-10-01	www.dgsc.org.sl	Freetown, Sierra Leone	1	[Edit] [Delete]
22	Sudan	SD	Member	2015-10-01	www.dgsc.org.sd	Khartoum, Sudan	1	[Edit] [Delete]
23	Tanzania	TZ	Member	2015-10-01	www.dgsc.org.tz	Dar es Salaam, Tanzania	1	[Edit] [Delete]
24	Togo	TG	Member	2015-10-01	www.dgsc.org.tg	Lome, Togo	1	[Edit] [Delete]
25	Tunisia	TN	Member	2015-10-01	www.dgsc.org.tn	Tunis, Tunisia	1	[Edit] [Delete]
26	Zambia	ZM	Member	2015-10-01	www.dgsc.org.zm	Lusaka, Zambia	1	[Edit] [Delete]
27	Zimbabwe	ZW	Member	2015-10-01	www.dgsc.org.zw	Harare, Zimbabwe	1	[Edit] [Delete]

User Data (AFSEC Super Administrator)

Insert User Details into Database

First Name:

Last Name:

Country:

Role:

Country of the Role:

Username:

Password:

Confirm Password:

Save

- Username
- Password to access the Database
- Role: AFSEC Super Administrator – Country Administrator
- Country of the Role in Country Administrator, select the Country.

Data of AFSEC Country (AFSEC Super Administrator)

- Name of the Country
- Name of the organization in the Country for Electrotechnical standardization Management
- Code ISO of Country
- Admission Date in AFSEC
- Website of the National Organization if it exists
- AFSEC Membership: Applicant or Member
- If it exists, link to National Database of Standards
- Contact Information with: Address, City, Postal Code, Mail, Telephone, Fax
- If we have it, we can associate Accredited laboratories to any country
- Flag of the member country

Country (National) Administrator

Its main functionalities will be:

1. **Adopt a new own standard not recommended by AFSEC, filling in the same data that for any standard plus several fields more:**

Insert Standard Details into Database

Standard ID:

Standard Title:

Standard Number:

Standard Status:

Standard Type:

Standard Date:

Standard Code:

Save

Users Management (AFSEC Super Administrator)

2. **To manage users that can access to the Database based on their role (AFSEC Super Administrator, Country Administrator)**

ID	Username	Role	Country	Actions
1	admin	AFSEC Super Administrator	AFSEC	[Edit] [Delete]
2	country_admin	Country Administrator	Algeria	[Edit] [Delete]
3	country_admin	Country Administrator	Angola	[Edit] [Delete]
4	country_admin	Country Administrator	Benin	[Edit] [Delete]
5	country_admin	Country Administrator	Burkina Faso	[Edit] [Delete]
6	country_admin	Country Administrator	Burundi	[Edit] [Delete]
7	country_admin	Country Administrator	Cote d'Ivoire	[Edit] [Delete]
8	country_admin	Country Administrator	Egypt	[Edit] [Delete]
9	country_admin	Country Administrator	Ethiopia	[Edit] [Delete]
10	country_admin	Country Administrator	Ghana	[Edit] [Delete]
11	country_admin	Country Administrator	Guinea	[Edit] [Delete]
12	country_admin	Country Administrator	Guinea-Bissau	[Edit] [Delete]
13	country_admin	Country Administrator	Kenya	[Edit] [Delete]
14	country_admin	Country Administrator	Madagascar	[Edit] [Delete]
15	country_admin	Country Administrator	Mali	[Edit] [Delete]
16	country_admin	Country Administrator	Morocco	[Edit] [Delete]
17	country_admin	Country Administrator	Mozambique	[Edit] [Delete]
18	country_admin	Country Administrator	Niger	[Edit] [Delete]
19	country_admin	Country Administrator	Nigeria	[Edit] [Delete]
20	country_admin	Country Administrator	Rwanda	[Edit] [Delete]
21	country_admin	Country Administrator	Senegal	[Edit] [Delete]
22	country_admin	Country Administrator	Sierra Leone	[Edit] [Delete]
23	country_admin	Country Administrator	Sudan	[Edit] [Delete]
24	country_admin	Country Administrator	Tanzania	[Edit] [Delete]
25	country_admin	Country Administrator	Togo	[Edit] [Delete]
26	country_admin	Country Administrator	Tunisia	[Edit] [Delete]
27	country_admin	Country Administrator	Zambia	[Edit] [Delete]
28	country_admin	Country Administrator	Zimbabwe	[Edit] [Delete]

Adoption of AFSEC Recommended Standard (National administrator)

2. **Adopt an AFSEC recommended standard filling in the following data:**

Insert Standard Adoption into Database

Standard ID:

Standard Title:

Standard Number:

Standard Status:

Standard Type:

Standard Date:


Standard Code:

Save

- National Number of the Standard
- National Technical Committee
- Status of Standard: Compulsory or Voluntary
- Harmonized: Identical or With Modifications

Managing Information of the Country (National Administrator)

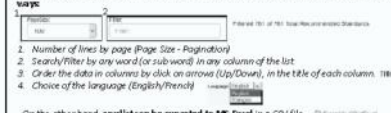
3. To update the contact information of the Country, see the list of adopted standards (the option can be updated or deleted) and manage the main contacts of the Country:



Public Access

Any visitor can access the Database to be informed about **Recommended Standards by AFSEC, the Member Countries of AFSEC** (main contacts, adopted standards, accredited laboratories), **the countries that have adopted one standard, the number of standards adopted by one country**, etc.

In any list of the database, we'll have the possibility to filter the information by several ways:



1. Number of lines by page (Page Size - Pagination)
2. Search/Filter by any word (or sub word) in any column of the list
3. Order the data in columns by click on arrows (Up/Down), in the title of each column. (Info)
4. Choice of the language (English/French)

On the other hand, any list can be exported to MS Excel in a CSV file. (Export to Excel)
In MS Excel, we have to use the following Menu Options to see the data in a correct way:
Data-Text in Columns-Separated by commas.

Main Contacts (National Administrator)



- Name and Surname of Contact
- Description of Contact Organization
- Role in the Organization of Contact
- Contact Mail

END

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Project funded by the EU at the request of the ACP Group

Accredited Laboratories (National Administrator)

3. To create, update and delete the data of accredited laboratories of its country:



- Name of the Accredited Laboratory
- Web of the Accredited Laboratory



ACP-EU TBT Programme
089-16-
HARMONISATION OF ELECTROTECHNICAL STANDARDS IN AFRICA

Laboratory capacities of AFSEC members in a performing QIS

Nairobi Kenya
10-11 January 2017

Ivan Hendrick, KE 2
Rogelio Garrido Simón, NKE 2

Introduction
WTO TBT provisions for technical regulations and conformity assessment

- International standards will improve trade when used as a means of compliance
- TBT has preference for international standards as implementation tool for technical regulation
- Regulators should be involved in developing international standards

4

CONTENTS

- **Introduction**
 - WTO TBT provisions for technical regulations and conformity assessment
 - Why we need conformity assessment?
- **Establishment of questionnaire 2**
- **More information**

2

Introduction
Role of conformity assessment in a Quality Infrastructure System

Elements of a QIS

- Legislative/regulatory framework
- Standardization
- Conformity assessment (testing, certification and inspection)
- Metrology
- Accreditation
- Market surveillance
- Consumer protection

3

Introduction
WTO TBT provisions for technical regulations and conformity assessment

"Recognizing the important contribution that international standards and conformity assessment systems can make in this regard by improving efficiency of production and facilitating the conduct of international trade,"

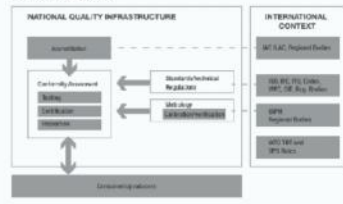
"2.4 Where technical regulations are required and relevant international standards exist or their completion is imminent, Members shall use them, or the relevant parts of them, as a basis for their technical regulations ..."

"2.6 With a view to harmonizing technical regulations on as wide a basis as possible, Members shall play a full part, within the limits of their resources, in the preparation by appropriate international standardizing bodies of international standards for products for which they either have adopted, or expect to adopt, technical regulations."

3

Introduction
Role of conformity assessment in a Quality Infrastructure System

QIS simplified drawing



The diagram illustrates the QIS simplified drawing, showing the relationship between National Quality Infrastructure and International Context. National Quality Infrastructure includes Accreditation, Conformity Assessment (Testing, Certification, Inspection), and Metrology/Technical Regulation. International Context includes WTO TBT, Regional Bodies, ISO/IEC/ITU/ENAS/AFSEC/IEA/Asia Bodies, IFSI, Regional Bodies, and WTO TBT and IFSI Bodies. A dashed line separates the two, with arrows indicating interaction. A box labeled 'Cooperating relevant' is at the bottom.

4



Introduction
Role of conformity assessment in a Quality Infrastructure System

Basic expectations of a QIS

1. Products/service made available on the market are safe and conform to other requirements of public interest.
2. Above made possible by law on general product safety: economic operators only to place safe products on the market.
3. Additional sector-specific safety requirements applicable for certain products/services based on voluntary (mandatory) standards provide for presumption of conformity with the requirements.
4. Product conformity assured through CA schemes by economic operator and CABs. CABs performances are assured by a National Accreditation Body.

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Introduction
Role of conformity assessment in a Quality Infrastructure System

Guiding principles

QI is important element of trade policy of a country/region

Emphasis is on the needs of the ENTERPRISE

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Introduction
Role of conformity assessment in a Quality Infrastructure System

Basic expectations of a QIS :-

5. Legal metrology and national metrology system (NMI) in place
6. Product liability law in place will safeguard responsibilities for economic operators to compensate for damages caused by unsafe products when already on the market
7. Obligation of public authorities to develop the QIS and to make it functional and effective

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Introduction
Role of conformity assessment in a Quality Infrastructure System

Examples of elements of a QIS - metrology

The Royal Egyptian Cubit :

- Established > 3000 years ago
- Length of forearm of pharaoh
- Made in granite
- Accuracy 0.05 %

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Introduction
Role of conformity assessment in a Quality Infrastructure System

Guiding principles

1. Proportionality of requirements, of fines/penalties
2. Avoidance of conflicts of interest (QI entity cannot be judge and party at the same time)
3. Participatory regulations (co-regulation)
4. Transparency providing "legal certainty" to economic operators
5. Right of defence (hearings, appeals in case of decisions made by MSAs)
6. Integration with other elements of national trade policy (see next slide)

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Introduction
Role of conformity assessment in a Quality Infrastructure System

Examples of elements of a QIS - metrology

The mars orbiter failure (NASA 1999)

- Trust calculation software failure made before getting into orbit
- Mixed use of 2 unit systems: English (lbf s) and Metric SI (N s)


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Introduction
Role of conformity assessment in a Quality Infrastructure System

Market Surveillance action on counterfeit products (safety issue)

Counterfeit circuit breakers (since about 2005)

- Distributors in USA have issued recalls in cooperation with the Consumers Product Safety Commission (CPCS)
- Hazard: The recalled circuit breakers labelled "Square D" have been determined to be counterfeit and can fail to trip when they are overloaded, posing a fire hazard to consumers.



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Questionnaire 2

2. Scope of the laboratory (or CAB)

2.1 International test standards

- ✓ List of details of test activities classified according:
 - Product or material tested (e.g. electrical household appliances)
 - Test method (e.g. electrical safety, EMC, ...)
 - External/internal reference number (e.g. IEC 60335-1)
 - Frequency

No. (1)	Product or material (2)	Test method (3)	External/Internal reference number (4)	Frequency (5)

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Introduction
Role of conformity assessment in a Quality Infrastructure System

Challenges for WTO member countries

1. Harmonization of Standards and Regulations to eliminate unjustified and unnecessary unique requirements
2. Elimination of Redundant and unnecessary Inspection and Testing Requirements
3. Harmonization of Product Risk Assessments and Regulated Product Lists among members
4. Guidelines for member-states on setting up effective and non-discriminatory CA programs

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Questionnaire 2

2. Scope of the laboratory (or CAB)

2.2 National test standards

- ✓ Can also be national regulations

No.	Country	Accredited or non-accredited	Test method	Reference number	Frequency

Remark:
scopes of accredited labs in AFSEC member and affiliate countries may be consulted on the web sites of the National Accreditation Bodies (e.g. SANAS)

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Questionnaire 2

1. Identification of the laboratory (or CAB)

- ✓ Name of responsible contact person
- ✓ General information about type of CAB

Purpose of questionnaire is not full audit acc. e.g. ISO/IEC 17025

Questionnaire for (electrotechnical) laboratories other CABs (Conformity Assessment Bodies)

The purpose of this questionnaire is to get an initial idea of the reputation of the potential electrotechnical laboratories or other CABs in AFSEC member countries and their interests to get accredited, so that they may be invited to get support for their accreditation.

The questionnaire is not intended to assess the laboratory/other CAB according to full accreditation requirements.

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Questionnaire 2

3. Status of the organisation

3.1 - 3.3 Type of organisation

- ✓ Private or state owned
- ✓ Statutes of the organisation (eventually, ref. to laws, decrees of the state)

To check if there is no conflict of interest and clear identity in case of litigation issues

3. Status of the organisation	
3.1	Type of organisation
	Private <input type="checkbox"/>
	State owned <input type="checkbox"/>
	Other (specify in 3.2) <input type="checkbox"/>
3.2	Ownership
3.3	The legal form of the organisation (registered as firm, company, etc.) and its name, address and telephone, fax and e-mail, website, if any

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Questionnaire 2

3. Status of the organisation
3.4 Accreditation(s) obtained

- ✓ Reference No., according which ISO/IEC standard, name of accreditation body, date of accreditation/recognition

Current accreditation status information (QM- procedures) may help in performing a deeper assessment to get support.

3.4	Accreditation to which international recognition? (reference No. of accreditation, ISO/IEC standard, name accreditation body, Date of accreditation/recognition)	
-----	--	--

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Questionnaire 2

5. Testing capacities
5.1 – 5.3 Specific testing capacities

- ✓ Are tests subcontracted?, availability of internal calibration programs, specific equipment/facility needs

To get a clear understanding of specific testing needs (e.g. for future new scopes of accreditation or any current test issues)
Similar questions for 6. Certification capacities and 7. Inspection capacities

A. Testing		Yes	No
5.1	Any testing subcontracted? (if possible specify)	<input type="checkbox"/>	<input type="checkbox"/>
5.2	Do you operate internal calibration program?	<input type="checkbox"/>	<input type="checkbox"/>
5.3	Do you have all the test equipment needed for future activities? If not, include a list of needed equipment that is not yet addressed in your	<input type="checkbox"/>	<input type="checkbox"/>

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Questionnaire 2

3. Status of the organisation
3.5 Accreditation needs

- ✓ General, structure, resources (human/material), technical (e.g. measurement uncertainty – validation testing), process, quality management (e.g. how to conduct internal audits)

To get a clear understanding on the needs based on evidence

3.5	What accreditation needs do you see in your country? (General, structure, resources (human/material), technical (e.g. measurement uncertainty – validation testing), process, quality management (e.g. how to conduct internal audits))	
-----	---	--

Requirement	Market	Industry
General		
Structure		
Resources		
Technical		
Process		
Quality Management		

Requirements: ISO/IEC 17025, ISO/IEC 17024, ISO/IEC 17020, etc.
Standard: ISO/IEC 17025

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Questionnaire 2

8. Other questions
8.1 Existence of a Business Plan

- ✓ Market study (what services are needed re. technical regulations, cost of services, who are competitors, ...)
- ✓ Market study to include mandatory tests and product development tests
- ✓ Financial simulation over 5 years (preferred)

To get a clear understanding of sustainability of the organisation

A. Other		Yes	No
8.1	Does your company/organisation have established a Business Plan? (if you provide details)	<input type="checkbox"/>	<input type="checkbox"/>

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Questionnaire 2

4. Internal structure of the organisation
4.1 – 4.3 Organisation capacities

- ✓ Organisation chart, number of persons, staff directly involved in testing – certification – inspection, stakeholder involvement, CVs of key staff, confidentiality measures

To get a clear understanding of management capacities and personnel know-how

A. Internal structure and capacities		Yes	No
4.1	Do you have an organisation chart?	<input type="checkbox"/>	<input type="checkbox"/>
4.2	Do you have a list of persons directly involved in testing – certification – inspection?	<input type="checkbox"/>	<input type="checkbox"/>
4.3	Do you have a list of persons directly involved in testing – certification – inspection? (CVs of key staff, confidentiality measures)	<input type="checkbox"/>	<input type="checkbox"/>
4.4	Do you have a list of persons directly involved in testing – certification – inspection? (CVs of key staff, confidentiality measures)	<input type="checkbox"/>	<input type="checkbox"/>
4.5	Do you have a list of persons directly involved in testing – certification – inspection? (CVs of key staff, confidentiality measures)	<input type="checkbox"/>	<input type="checkbox"/>

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Questionnaire 2

8. Other questions
8.2 – 8.5 Participation in national/regional/international organisations

- ✓ Participation to technical capacity building projects (int. donors), to standardisation development or follow-up, to proficiency testing initiatives

To get a clear understanding of the knowledge of the organisation of the legal framework and the Quality Infrastructure needs of a country

A. Other		Yes	No
8.2	Do you participate in technical capacity building projects supported by international organisations?	<input type="checkbox"/>	<input type="checkbox"/>
8.3	Do you participate in technical capacity building projects supported by international organisations?	<input type="checkbox"/>	<input type="checkbox"/>
8.4	Do you participate in technical capacity building projects supported by international organisations?	<input type="checkbox"/>	<input type="checkbox"/>
8.5	Do you participate in technical capacity building projects supported by international organisations?	<input type="checkbox"/>	<input type="checkbox"/>

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Questionnaire 2

9. Annexes to be added to the questionnaire

Such as:

- ✓ Organisation chart
- ✓ CVs of key staff
- ✓ List of needed test equipment and cost estimates
- ✓ Business Plan

It is common practice to visit the organisation and perform interviews including check of availability of test equipment/facilities (on-site).

Confidentiality shall be warranted (non-disclosure agreement)

9. Annexes

Attach herewith following annexes:

- Organisation chart
- CVs of key staff
- List of needed test equipment and cost estimates
- Business Plan of the company/organisation



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More information

More information on laboratory development may be found here:

- Setting up an electrical testing laboratory in a developing country
http://www.iec.ch/labout/brochures/pdf/conformity_assessment/Setting_up_an_electrical_testing_laboratory.pdf
- Guidelines for developing countries on establishing conformity assessment test labs in different regions May 2012: http://www.itu.int/ITU-D/tech/Conformance/interoperability/Conformance/Interop/Guidelines/Test_lab_guidelines_EV8.pdf
- IEC GUIDE 115:2007 Application of uncertainty of measurement to conformity assessment activities in the electrotechnical sector (available on IEC web site)
- Guide to the expression of uncertainty in measurement (GUM), OIML G 1-100: 2008
- Guidance note EL 001:2002, measurement uncertainty for electrical testing field, SINGLAS
- Free measurement uncertainty software available (see IEEE web site)
- IEC Test Report Forms downloadable from:
<http://www.iecee.org/dyn/www?ip=106:61:0>

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Thank you
Any questions?

www.acp-eu-tbt.org



Project funded by the EU at the request of the ACP Group



Selection of electrotechnical laboratories proposed for support to get accreditation
Nairobi Kenya, 10-11 January 2017

Ivan Hendriks, IEC 2
Rogelio Garrido Simón, NHE 2

CONTENTS


- Scope of the work related to electrotechnical labs accreditation needs identification
- Design of the questionnaire
- Analysis of completed questionnaires
- New AFSEC standards database: where to find information on electrotechnical labs

Scope of the work related to electrotechnical labs accreditation needs identification

- Identification of all African electrotechnical labs (or other facilities) qualified to be accredited to test electrical products
 - Scope of the tests performed by the laboratory (product categories)
 - Equipment needed incl. standards needed
 - Accreditation support needs (e.g. training)

Design of a questionnaire

- To capture current capabilities of the laboratory



Design of a questionnaire

- Simplified questionnaire of 2 pages
- Focus on accredited labs and those in process of accreditation
- Capturing all African electrotechnical labs not feasible considering short project duration (= long term objective)
- Visit of lab facility needed to capture correctness of completed questionnaires and to clarify more subtle test requirements/needs

Design of a questionnaire

- A more extensive questionnaire (=available but not used) may be used in follow-on project (see later)
- It was agreed with beneficiary to focus identification and needs assessment on accredited labs for the time being
- Putting information of labs on AFSEC web site could to litigation issues: decision was taken to put only links to the web sites of the labs on it

Design of a questionnaire: different parts of it

- Identification of the laboratory
- Scope: product or material tested, test method, IEC test standard
- Status of the organization (private, state owned, etc.)
- Information on obtained accreditation(s)
- Subcontracting of tests
- Availability of a Business Plan
- Involvement in standards work
- Any relevant information/suggestions within frame of this project

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Analysis of competed questionnaires

- Mailing of questionnaire to NECs of AFSEC member countries on 25 November 2016
- A few changes in email addresses noted
- Completed questionnaires received from:
 - Ghana (25.11.2016)
 - Kenya (20.12.2016)
 - South Africa (20.12.2016)
 - South Africa (21.12.2016)
 - South Africa (22.12.2016)

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Analysis of competed questionnaires

Main scopes of labs who sent competed questionnaires

AFSEC country	Product/materials tested	IEC test standards
Ghana	Household refrigerating appliances Electrical cables Batteries Switch/sockets	IEC 62062 series IEC 60227 series IEC 60095 IEC 60069-1-2
Kenya	Electrical cables Household electrical appliances Batteries Lamps	IEC 60228, 60502 IEC 60335 series IEC 62031, 60608, 60609, 60064, 62776
South Africa	Household electrical appliances ITE Audio-video equipment Meas., Control, Lab. equipment UPS Electronic equipment used in Pwr. Int. LED modules for general lighting	IEC 60335 series IEC 60660-1 IEC 60065 IEC 61010-1 IEC 60869 series IEC 62403 IEC 62031

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Analysis of competed questionnaires

Main scopes of labs who sent competed questionnaires

AFSEC country	Product/materials tested	IEC test standards
South Africa	LV components, control & switch gear HV components, control & switch gear	IEC 60227, 60947 series, 60439-1, 60269, 60069 IEC 62271 series, 60660, 60078 series
South Africa	Mainly operated lawn mowers/blowers Hand-held motor-operated electrical tool Transportable motor operated tools Single & three phase induction motors	IEC 60335-1 & -2-G1 IEC 60746 series IEC 61029 series IEC 60034 series, 60072 series

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Preliminary conclusions

- 5 laboratories competed the questionnaire
- Comprehensive analysis of capabilities and needs of candidate laboratories to get support could not be performed (would need visit to labs)
- A complete assessment of at least 1 laboratory is envisaged (to be in agreement with project ToR requirement)

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Thank you
Any questions?

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ANNEX 4.4. ANALYSIS OF QUESTIONNAIRES OF EVALUATION PROVIDED BY PARTICIPANTS AND ORGANISERS.

Questionnaires were provided to organisers and participants in the Final Validation Workshop. The results obtained are summarised below.

ID	Organizations and Logistics								Workshop implementation and content						Overall assessment		
	The invitation and selection process of participants was well organized, clear and transparent	The project beneficiary was fully involved in the invitation and selection process	Key counterparts and stakeholders were all invited to the workshop and adequately informed	The nr of no shows was negligible	Facilities in terms of rooms, equipment, location, etc. were adequate	Coffee breaks, meals and social event (if any) were well organised and well participated	Training dates and schedule (starting time, breaks, lunch, etc.) were well planned	The project beneficiary was helpful in taking care and respond to unexpected contingencies	Participants had a clear perception of the workshop objectives	The programme were respected and completed	Presentations were clear, understandable and useful	Key national and regional (if relevant) stakeholders were present at the workshop throughout its entire duration	The mix of representatives from public and private sector was adequate	Participants have actively participated to discussions and networking opportunities	The workshop/seminar met the expectations of the participants	Workshop presentations addressed key topics relevant for participants' work	I am satisfied with the results of the workshop as a whole
	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4
1	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4
2	4	4	4	4	4	4	4	4	4	4	4	3	3	4	4	4	4
3	4	3	4	3	4	4	3	2	3	4	3	4	3	4	3	3	3
4	4	3	3	4	4	4	4	4	4	4	4	4	4	4	3	4	3
5	4	4	4	4	4	4	4	4	4	4	4	4		4	4	4	4
A	4	3,6	3,8	3,8	4	4	3,8	3,6	3,6	4	3,8	3,8	3,5	4	3,6	3,8	3,6

Table above shows individual an average punctuations provided by organisers.

Overall Assessment of organisers shows that:

-) The workshop/seminar met the expectations of the participants: 3.6 points of 4.
-) Workshop presentations addressed key topics relevant for participants' work: 3.8 points of 4.
-) Organisers were satisfied with the results of the workshop as a whole: 3,6 points of 4.

Organizations and Logistics						Workshop implementation and content					Overall assessment		
ID	The invitation and selection process of participants was well organized, clear and transparent	Available facilities in terms of rooms, equipment, location, etc. were adequate	Workshop dates and schedule (starting time, breaks, lunch, etc.) were well planned	Coffee breaks, meals and social event (if any) were well organised and well participated	The organisation team was able to take care and respond to unexpected contingencies	The objectives of the workshop were clear	Speakers and presentations were clear, understandable and knowledgeable	Key national and regional (if relevant) stakeholders were present at the workshop throughout its entire duration	The mix of representatives from public and private sector was adequate	Discussions and networking opportunities were actively participated by key stakeholders	The workshop/ seminar met my expectations	Workshop presentations addressed key topic relevant for participants' work	I am satisfied with the results of the workshop as a whole
	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4	Score 1-4
1	3	4	2	3	3	2	2	3	3	3	2	2	2
2	4	4	4	4	4	3	3	4	4	3	3	3	3
3	3	4	3	3	3	4	4	3	3	4	4	4	3
4	4	4	4	4		4	4			4	4	4	4
5	4	3	3	3	4	3	4	3	3	3	4	3	3
6	3	4	4	4	3	4	3	3	3	3	3	3	3
7	4	4	4	4	4	4	4	4	4	4	4	4	4
8	4	4	4	4	4	4	4	4	4	4	4	4	4
9	4	4	4	4	4	4	4	4	4	4	4	4	4
10	4	3	3	4	4	4	3	4	3	3	3	3	3
11	3	3	3	3	3	2	3	2	2	3	3	3	3
12	2	2	2	2	2	3	3	3	4	4	2	2	2
13	3	3	3	3	3	3	3	3	2	3	2	3	3
14	4	3	4	3	3	3	3	3	3	4	4	3	3
15	4	4	3	3	4	3	4	4	4	4	3	3	3
16	4	3	4	4	4	4	4	4	3	4	4	4	4
17	4	3	3	3	4	3	4	4	3	3	4	3	4

ID	Organizations and Logistics					Workshop implementation and content					Overall assessment		
	The invitation and selection process of participants was well organized, clear and transparent	Available facilities in terms of rooms, equipment, location, etc. were adequate	Workshop dates and schedule (starting time, breaks, lunch, etc.) were well planned	Coffee breaks, meals and social event (if any) were well organised and well participated	The organisation team was able to take care and respond to unexpected contingencies	The objectives of the workshop were clear	Speakers and presentations were clear, understandable and knowledgeable	Key national and regional (if relevant) stakeholders were present at the workshop throughout its entire duration	The mix of representatives from public and private sector was adequate	Discussions and networking opportunities were actively participated by key stakeholders	The workshop/seminar met my expectations	Workshop presentations addressed key topic relevant for participants' work	I am satisfied with the results of the workshop as a whole
19	3	4	4	4	3	3	4	4	4	3	3	3	3
20	4	4	3	4	4	4	4	4	3	4	4	4	4
21	4	4	4	4	4	3	3	3	3	3	4	4	4
22	4	3	4	3	3	4	3	4	4	3	3	4	3
23	4	4	4	4	4	3	3	3	3	3	4	4	4
24	3	4	3	3	3	4	4	4	3	3	3	4	3
25	3	4	4	3		2	4	4		3	3	3	3
26	4	4	4	4	4	4	4	3	3	4	4	4	4
27	3	3	4	4	4	4	3	3	3	3	3	3	3
28	4	4	4	3	3	3	4	4	3	3	3	3	3
29	4	3	4	4	4	4	4	4	4	4	4	4	4
30	4	4	4	3	3	4	3	3	4	4	3	3	3
31	4	3	3	3	4	4	4	4	4	4	3	4	3
32	3	3	3	3	3	3	3	4	4	3	3	3	3
33	3	4	4	4	4	4	4	3	2	4	4	4	4
A	3,58	3,58	3,55	3,48	3,52	3,45	3,52	3,53	3,29	3,45	3,36	3,39	3,30

Table above shows individual an average punctuations provided by participants.

Overall Assessment of participants shows that:

-) The workshop/seminar reasonably met the expectations of the participants: 3.36 points of 4.
-) Workshop presentations reasonably addressed key topics relevant for participants' work: 3.39points of 4.
-) Organisers were reasonably satisfied with the results of the workshop as a whole: 3,30 points of 4.

ANNEX 5- TIMETABLE OF THE ACTIVITIES

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Number of WD										
OCTOBER 2016																																										
KE1			HB	HB						HB				HB			HB			HB														7								
KE2				HB	HB								HB	HB				HB	HB						HB	HB		HB						5								
NKE1																				HB	HB	HB		HB	HB	HB	HB	HB						8								
NKE 2																																		0								
NKE 3																															HB			1								
NOVEMBER 2016																																										
KE1		HB	HB	HB			HB	HB	HB												SA	SA	SA											10								
KE2							HB		HB						HB						SA	SA	SA		HB			HB	HB					7								
NKE1																																		0								
NKE 2														HB	HB	HB	HB	HB																5								
NKE 3	HB	HB	HB	HB			HB	HB	HB	HB	HB		HB	HB	HB	HB	HB				HB			HB	HB			HB	HB	HB				20								
DECEMBER 2016																																										
KE1					HB	HB	HB	HB							BXL	BXL				HB														7								
KE2									HB							BXL				HB							HB							4								
NKE1														HB																				1								
NKE 2					HB	HB	HB	HB	HB																									5								
NKE 3						HB	HB	HB	HB						HB	HB					HB	HB												8								
JANUARY 2017																																										
KE1								KE	KE	KE	KE										HB	HB	HB							HB				8								
KE2										KE	KE	KE	KE								HB	HB						HB						6								
NKE1										KE	KE	KE				HB																		4								
NKE 2				HB	HB					HB																								3								
NKE 3										KE	KE	KE																						6								
		HB	Home-Based part-time work							SA	Mission to South Africa																															
		KE	Mission to Kenya							BXL	Mission to Brussels																															

ANNEX 6- PAGE PRESENTATION ON KEY ACTIVITIES AND RESULTS

The overall objective of the project was to increase the capacity of African electrotechnical industry to implement common standards in support of increasing access to and use of electricity throughout Africa.

Specifically, it has supported AFSEC in identifying priorities for harmonisation efforts for electrotechnical standards, ensuring synergy with African Regional Economic Communities Programmes. It also supported AFSEC conducting an assessment of electrotechnical testing capacities within African countries and overcome the technical barriers among African countries as related to compliance to standards.



Final Validation Workshop Participants

In order to reach this goal, Project **089-16 AFSEC – Harmonisation of Electrotechnical Standards in Africa** developed the following main activities:

- J Design and set up of a database of Electrotechnical Standards, validated by AFSEC's State Members.
- J Collection and assessment of information in relation to capacities of the AFSEC's State Member Electrotechnical Laboratories, in view of their potential accreditation.
- J Identification and formulation of priorities and action plans of AFSEC in relation to its future programme of work

Project results achieved consisted in:

- Ñ The database on harmonization of standards is available and was validated during the Final Validation Workshop,
- Ñ The data of almost all AFSEC's State Members on national standards in force and their origin (international or home-grown) is available,
- Ñ Indication whether these national standards are recommended by AFSEC or not is available,
- Ñ The following guides for use of the database were produced:
 - o The technical manual which describes the way to make technical modifications on the Database and its programming framework, in English,
 - o The Installation guide which describes the needed steps to install the AFSEC Electrotechnical Standards Database Application in a production environment, in English and French,
 - o The AFSEC Administrator User Guide, which describes how to use the main functionalities to AFSEC Administrator Role in the database, in English and French,
 - o The AFSEC National Administrator User Guide, which describes how to use the main functionalities to Country Administrator Role in the database, in English and French.
- Ñ The database was delivered to the beneficiary,
- Ñ The accredited laboratories were identified for AFSEC's State Members
- Ñ Priorities and Action Plans of AFSEC for AFSEC's future work programme were proposed and validated by the beneficiaries.