

ABOUT THE CB SCHEME



IECEE CB SCHEME

THE CONCEPT

The IECEE CB Scheme is the world's first truly international system for mutual acceptance of test reports and certificates dealing with the safety of electrical and electronic components, equipment and products. It is a multilateral agreement among participating countries and certification organizations. A manufacturer utilizing a CB test certificate issued by one of the accepted National Certification Bodies (NCBs) can obtain certification marks of the latter, within their scope of adherence, in the countries where the accepted NCBs are located.

The Scheme is essentially based on the use of international (IEC) Standards. If some members' national standards are not yet completely harmonized with IEC Standards, national differences, Special National Conditions (SNC) and Regulatory Requirements are permitted subject to formally declaring and detailing them to the IECEE Secretariat for further publication. The CB Scheme utilizes CB Test Certificates to attest that product samples have successfully passed the test conditions and are in compliance with the requirements of the relevant IEC Standard(s). When applicable, the CB Test Certificate and its associated Test Report can also include declared national differences, Special National Conditions (SNC) and Regulatory Requirements of various member countries.

The main objective of the Scheme, is to facilitate trade by promoting harmonization of the national standards with international Standards and cooperation among accepted NCBs worldwide in order to bring product manufacturers a step closer to the ideal concept of "one product, one test, one mark, where applicable".

HISTORY

Originally, this Scheme was operated by the CEE (former European "International Commission for Conformity Testing of Electrical Equipment"). It was integrated into IEC in 1985.

PARTICIPATION IN THE CB SCHEME

All countries which have membership in IEC may join the IECEE however organizations domiciled in IEC associated member countries and in the non-member countries may also seek IECEE Membership under certain conditions as laid down in document CAB/274/INF. The National Committee of each member country must then designate its National Certification Body or Bodies (NCB) which will be responsible for recognizing and issuing CB Test Certificates. The National Standards of the member country must be reasonably harmonized with the corresponding IEC Standards for which participation in the CB Scheme is sought. Any differences or deviations from IEC Standards must be openly declared and made available to the IECEE Secretariat which takes care of publishing this information in the relevant CB Bulletins. Each NCB must separately apply for recognition of specific IEC Standards it intends to operate within the CB Scheme. The issuance and the acceptance of test certificates by NCBs within the CB Scheme are limited only to those IEC Standards the NCBs are officially accepted for. A periodically updated list of all NCBs and the scopes of their recognition appear in the CB Bulletin available from the IECEE Website (<http://members.iecee.org/iecee/ieceemembers.nsf/Scope%20by%20Standard%20-%20Cat%20Only?OpenView>), non-IECEE Members can purchase access to the National and Group Differences from the IEC Webstore (<http://www.webstore.iec.ch>).

Information can be obtained upon request at the IECEE Secretariat (tsm@iec.ch and/or msh@iec.ch and/or sap@iec.ch)

Currently, there are 52 Member Bodies in the IECEE. There are 65 participating NCBs and some 276 CB Testing Laboratories at the time of this publication.

TERMINOLOGY

IECEE stands for "The IEC System for Conformity Testing and Certification of Electrical and Electronic Components, Equipment and Products".

The acronym CB Scheme simply means "Certification Bodies' Scheme"

A **National Certification Body (NCB)** is a certification organization that grants nationally recognized conformity certificates to electrical products. To be accepted as a member of the CB Scheme, an NCB must meet specified requirements with regard to its internal quality system and technical competence and is assessed against ISO/IEC Guide 65 and the IECEE Rules of Procedure. An NCB can qualify either as a **Recognizing NCB**, or as an **Issuing and Recognizing NCB**.

Recognizing NCB only

An NCB that has been assessed and accepted to operate as a recognizing NCB only is entitled to recognize CB Test Certificates and CB Test Reports, issued by accepted Member NCBs registered as Issuing NCBs, as a basis for granting their own certification mark(s) in the areas of specified products and Standards under their scope.

Recognizing NCBs only are not entitled to issue CB Test Certificates.

Issuing and Recognizing NCB

An Issuing NCB is authorized to issue CB Test Certificates for specified standards registered under its scope and has the obligation to recognize and accept CB Test Certificates and associated Test Reports issued by the other accepted members NCB.

An Issuing and Recognizing NCB may however recognize CB Test Certificates for a broader scope than its issuing scope, in which case the Recognizing scope is listed in the relevant "Scope's" area on the Web Site.

A **CB Testing Laboratory (CBTL)** is a laboratory recognized in the CB Scheme to conduct testing and issue CB Test Reports in one or more product categories under the responsibility of its associated NCB(s). CBTLs may operate in the Scheme for different NCBs with which they are associated however when employed by multiple NCBs a determined category, i.e. OFF, can only be operated with one NCB.

SCOPE OF THE CB SCHEME

The products covered by the CB Scheme are those within the scope of IEC Standards accepted in the IECEE System (see

<http://members.iecee.org/iecee/ieceemembers.nsf/IECEEScopeInStandard>). At least 1 of the NCBs shall be an Issuing and Recognizing NCB. A current list of IEC Standards used is provided in the CB Bulletin and the IECEE Website.

APPLICATIONS UNDER THE CB SCHEME

The procedure for obtaining a CB Test Certificate and product certification in other CB member countries is illustrated in Figure 1

The following points should be noted concerning the application for a CB Test Certificate:

- An Application for obtaining a CB Test Certificate may be submitted from an Applicant to any "Issuing and Recognizing" NCB accepted for the relevant IEC Standard.

- The Applicant may be either a manufacturer or an entity authorized to act on behalf of a manufacturer.
- The Application may cover one or more factories in one or more countries where the product is manufactured.
- The following table shows the different combination of Applicant “A”, Manufacturer “M” and Factory “F” that are subjected to surcharge. (150 CHF each, starting in 2009, 100 CHF each). Implementation of this table is effective since January 1st 2003:

In a member Country	In a non-member Country	Surcharge
AMF	None	no
A M F	F	yes
A M F	M	yes
A M F	M F	yes
AM	M	yes
AM	MF	yes
AM	F	yes
AF	M F	yes
AF	M	yes
AF	F	yes
MF	A M F	yes
MF	A M	yes
MF	A F	yes
MF	A	yes
F	A M F	yes
F	A M	yes
F	A F	yes

The surcharge is to be collected by the NCB handling the application, and remitted to the IECEE account upon invoicing by the IECEE Secretariat.

- The Applicant may request the NCB to test the product also to the national differences of the countries where the product is to be marketed.

The Application procedure for obtaining product certification in manufacturer's target markets entails submission of the following items:

- An Application to an NCB in the target country.
 - The CB Test Certificate
 - CB Test Report including the supplement on national differences, if applicable.
- if required by the NCB, for stated reason, a sample of the product

The purpose of requiring a sample is to verify that the product is the same as initially tested by the Issuing NCB and that the national differences have properly been covered.

Secondary certifications based on CBTCs are subject to the certification rules of the relevant NCB.

CB TEST CERTIFICATES AND CB TEST REPORTS

CB Test Certificate is a formal CB Scheme document issued by an authorized NCB to inform other NCBs that a sample of the product tested was found to be in compliance with the applicable requirements. CB Test Certificates should not be used for advertising purpose, however reference to the existence of a CB Test Certificate is permitted.

CB Test Report is a standardized report in a clause by clause checklist format referencing, the requirements of the relevant IEC Standard. The Test Report provides clear and unambiguous results of all the required tests, measurements, verifications, inspections and evaluations. It also contains photographs, electrical diagrams, artwork drawings as well as a description of the product. Under the rules of the CB Scheme, a CB Test Report is considered valid only if accompanied by its CB Test Certificate.

An NCB can test and evaluate products to national differences of other countries if it has the necessary test equipment and expertise. These additional tests are documented in the Supplements to the CB Test Report which are generally accepted by the recognizing NCBs.

NATIONAL DIFFERENCES

The National Differences, Special National Conditions and the Regulatory Requirements of all countries participating in the CB Scheme are provided to the IECEE Secretariat and published in the CB Bulletin.

National differences from an IEC Standard are those requirements in the corresponding National Standard which are necessary to comply with, when seeking certification marks from NCBs located in Countries where this information is provided.

Special National Conditions

National characteristic or practice that cannot be changed even over a long period, e.g. climatic conditions, electrical earthing conditions, electrical code installation.

NOTE: If it affects harmonization, it forms part of the European Standard.

For the countries in which the relevant special national conditions apply these provisions are normative. For other countries they are informative.

Regulatory Requirements

The restrictions, licenses, and laws applicable to a product or business, imposed by the government or the national authority.

The various regulatory and statutory requirements need to be addressed so as to ensure relaxed exporting in countries where regulatory requirements apply.

RESPONSIBILITIES OF NCBs

Depending on the scope of recognition in the CB Scheme, and the specific situation in each country, an NCB may carry out any of the following activities:

- Testing of products to the applicable IEC Standards.
- Testing to the national differences of destination countries.
- Issuing CB Test Certificates and CB Test Reports.
- Issuing CB Test Report Supplements on national differences of other countries.
- Recognizing CB Test Certificates issued by other NCBs.
- Issuing its own certification and authorizing the use of its mark(s).

In some countries, the NCBs are independent from testing activities but operate with associated Testing Laboratories (CBTLs). Associated CBTLs are always operating under the sole responsibility of the responsible NCB.

NCBs are required to arrange for product testing within one month from the receipt of an Application for a CB Test Certificate (CBTC) Once the testing is completed and the product is found to be in compliance with the applicable IEC Standard and appropriate national differences, the NCB issues and forwards a CB Test Certificate (CBTC) and a CB Test Report (CBTR) to the Applicant. The manufacturer can then present these documents together with a sample of the product, where required, to NCBs in other countries whose certification marks are desired by the manufacturer.

The Recognizing NCBs in addition to review the application batch (CBTC and CBTR) may wish to verify that the product is the same as the sample(s) tested. They may examine some aspects of the construction of the product. Typically, no additional testing is required. The NCBs are encouraged to handle Applications for recognition of CB Test Certificates within 15 working days.

USE OF MANUFACTURERS' TESTING FACILITIES

Testing on Manufacturer's Premises (TMP)

Testing at the Manufacturer's Premises (TMP) is a CB procedure allowing an NCB or a CBTL to conduct testing at a manufacturer's testing laboratory. The testing laboratory is required to meet the criteria given in clauses 7 through 11 of ISO/IEC Guide 25 - General Requirements for the Competence of Calibration and Testing Laboratories. All tests under this program must be carried out by the staff of the NCB or CBTL.

Supervised Manufacturer's Testing (SMT)

Supervised Manufacturer's Testing (SMT) is another CB Scheme procedure for recognition of test data generated at a manufacturer's testing laboratory. The testing laboratory must be assessed for compliance with the appropriate provisions of ISO/IEC Guide 25 and Guide 58 - Testing Laboratory Accreditation System -- General Requirements for Operation and Recognition. There is also a requirement for ongoing verification of compliance by the NCB. The SMT procedure is used to assess and qualify a manufacturer's capability to carry out tests in specified product areas.

At the start of the program, all tests conducted by the manufacturer are witnessed by the NCB. After the NCB has gained sufficient experience with the manufacturer's testing laboratory, tests may be witnessed only periodically or may be repeated by the NCB at its discretion.

Test Reports and Certificates issued by an NCB under the SMT have the same status in the CB Scheme as any other CB Report and Certificate. The CB Test Reports generated under the SMT procedure should clearly specify this for the benefit of the Recognizing NCBs.

Witnessed Manufacturer's Testing (WMT)

Witnessed Manufacturer's Testing (WMT) is a procedure by which, at the request of an NCB, personnel from a CBTL are present to observe ("witness") all tests carried out by manufacturer's staff at the manufacturer's laboratory, which is under contract to the CBTL. CBTL personnel are responsible for the completion of the IECCE Test Report. However, the decision to conduct WMT must be agreed beforehand by the relevant NCB.

In WMT, a representative of an accepted CBTL witnesses, on behalf of a NCB, all tests performed by a manufacturer's laboratory, which uses own test equipment. It is a requirement that the CBTL employing the laboratory staff is accepted for the particular standard for which tests are being witnessed and that the laboratory staff has the relevant competence and expertise for that standard.

Recognised Manufacturer's Testing (RMT)

A Recognized Manufacturer's Testing Laboratory (RMTL) is a manufacturer's testing laboratory being used by a NCB to conduct agreed upon testing of products, falling under the accepted scope of the responsible NCB and the relevant standard(s), for which the manufacturer has design and production responsibility.

The recognition of a RMTL applies only to its work in association with the responsible NCB

The RMT concept combines rigorous qualification of the manufacturer's capabilities, a confidence building phase, extensive exchange of information between the NCB and the RMTL, verification of reports and a specified laboratory surveillance programme.

RMT is a procedure by which an NCB assesses initially and on an on-going basis the capability and expertise of the manufacturer's laboratory(ies) according to ISO/IEC 17025 and any other relevant IECEE Operational Documents, including the laboratory's quality management system and the laboratory's testing processes.

In this procedure, the NCB is not required to witness or supervise all or portions of individual test programmes as is required for SMT.

The RMTL uses its own personnel and test equipment, takes responsibility for, and signs the test report, which is verified by the NCB prior to issuing a CB Test Certificate.

ORGANIZATION OF THE CB SCHEME

The Scheme is managed by a **Certification Management Committee (CMC)** reporting to the Conformity Assessment Board (CAB) of the International Electrotechnical Commission (IEC) seeking approval on changes to the Basic Rules, appointment of officers, finances, and policy of the IECEE. The role of the CMC is to manage, operate, develop, and promote the Scheme in accordance with its rules. To decide on acceptance, rejection or suspension of members, and to make decisions on new product categories and Standards to be accepted in the CB Scheme.

The membership of the CMC comprises the IECEE Officers, delegations from member countries including NCB representatives, CTL Chair and Secretary, representatives of IEC Advisory Committees such as ACOS, the Advisory Committee on Safety, and the General Secretary of the IEC.

The structure of the IECEE comprises a Board Of Appeals (BOA) composed by the Chairman and four members, including 4 alternates, all appointed by the CMC.

The Assessment Advisory Group (AAG) is also appointed by the CMC and deals with the overall process of the Peer Assessment Program, in addition to reaching common understanding of the requirements of ISO/IEC 17025 and ISO/IEC Guide 65.

One of the pillars of the IECEE is the **Committee of Testing Laboratories (CTL)** which consists of representatives from member NCBs and CBTLs. CTL deals with test procedures, common understanding and uniform application of technical requirements, test conditions, test equipment, and proficiency testing programs. Its main objective is to promote technical confidence and consistency required to facilitate acceptance of test results among the CB Scheme members.

CTL publishes its common understandings, called "CTL Decision Sheets", intended as normative requirements together with the IEC standards, to be implemented by all NCBs and CBTLs.

ACCEPTANCE OF NCBS AND CBTLS

An NCB that wishes to become a member of the CB Scheme for specified Standards or would like to extend its scope to include additional Standards, is required to submit an Application through its national member body in IECEE. The IECEE Secretary reviews all such Applications, appoints Assessment Teams and organizes on-site assessments of the NCBs to verify compliance against ISO/IEC Guide 65 and the IECEE Rules of Procedure and Operational Documents. The IECEE Peer Assessments also ensure that each member NCB has the technical capability, competence and experience to carry out the required tests against IEC Standards and produce Test Reports acceptable to all other NCBs.

Assessment Teams comprise experts from participating NCB and CBTLs. Their Assessment Reports are made available to all CMC members for comments and yet studied in detail by the CMC Assessment Advisory Group, a standing committee of experienced IECEE experts. The Assessment Advisory Group's objective is a consistent and efficient operation of the peer assessment process. The acceptance of the assessment reports is decided by the CMC on the recommendations of the Assessment Advisory Group.

A very similar process is followed for a CBTL except that they are assessed against ISO/IEC 17025 and the Application is endorsed by the responsible NCB prior to the submission of an application to the IECEE Secretariat through the national Member Body of such NCB.

A CBTL may be associated with only one NCB per product category/standard.

RULES AND PROCEDURES

The rules and procedures of the CB Scheme are published in the following IEC Publications:

- IECEE 01 (Basic Rules of the IECEE);
- IECEE 02 (Rules of Procedures of the CB Scheme); and

IECEE 01 describes the organization of the IECEE, its membership, the Certification Management Committee (CMC), Committee of Testing Laboratories (CTL), Board of Appeal, the roles and responsibilities of the committees and their officers, and the overall governance of the IECEE.

IECEE 02 describes the functioning of the CB Scheme, procedures and criteria for the acceptance and expansion of the scope of NCBs and CBTLs, procedures for issuing and handling of CB test certificates.

Detailed procedures for the operations of the Schemes are provided in the various Operational Documents as listed in the relevant Annexes of the Rules of Procedures IECEE 02.

CB BULLETIN

The CB bulletin provide the essential information of the CB Scheme and represent the key instrument for the users of the CB Scheme. The IECEE Secretariat publishes the CB Bulletin in database format, IECEE outsiders access can be purchased on a yearly basis. The Bulletin contains the following information:

- Standards accepted for use in the Scheme.
- Information on participating NCBs including product categories and Standards for which they have been recognized.
- National Differences of each member country for each Standard.
- Any other useful information pertaining to the operation of the IECEE.

Some information previously published in the CB Bulletin only is now made available on the CB Scheme Website at www.iecee.org

BENEFITS OF THE CB SCHEME TO THE MANUFACTURER

The CB Scheme may provide significant benefits to those manufacturers who wish to export their products to countries that participate in the Scheme.

Such manufacturers can:

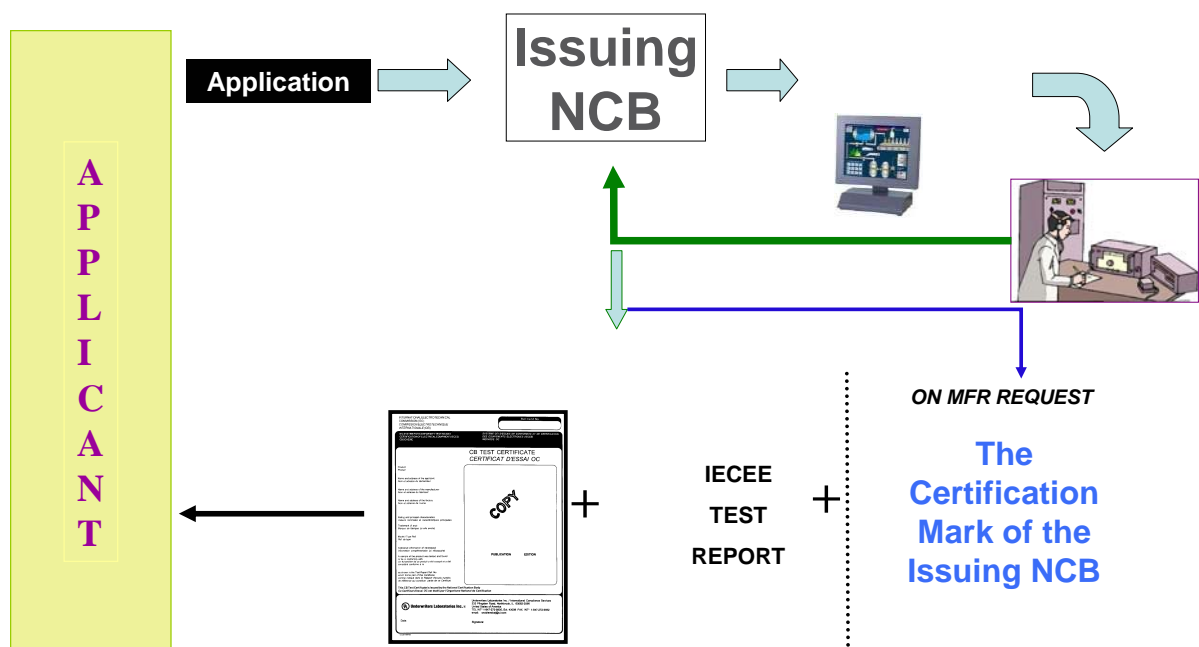
- Select and deal with one NCB of their choice.
- Have their products tested only by that NCB, including testing to the national differences, special national conditions and regulatory requirements of the product's destination countries.
- Use the CB Test Report and Certificate obtained from one NCB to obtain national approvals in many other member countries through their participating NCBs.

Although the manufacturer is required to submit an Application and may also be required to submit a product sample in the country of destination, no additional testing is needed, and only administrative work should be involved in processing such Applications. Applications for obtaining certifications based on CB Test Certificates and CB Test Reports are given priority over other Applications as no testing is involved.

IECEE. Taking Conformity Assessment Further



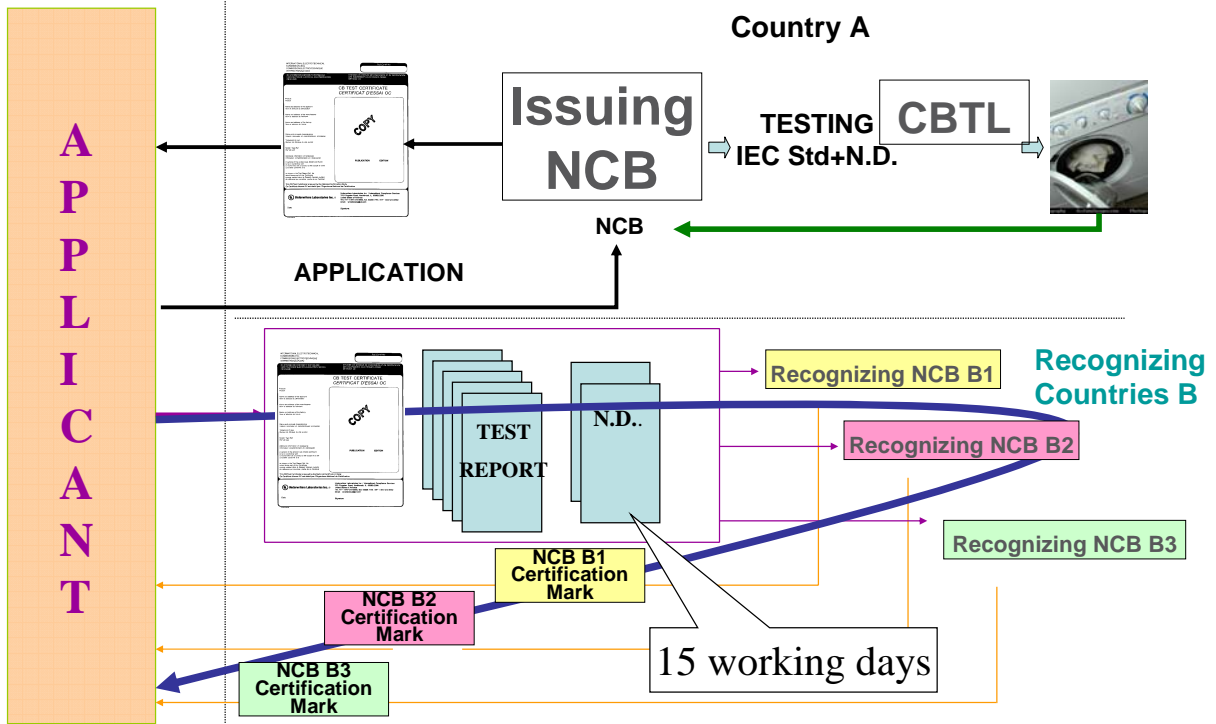
Upstream level Example: NCB x Issuing a CB Test Certificate



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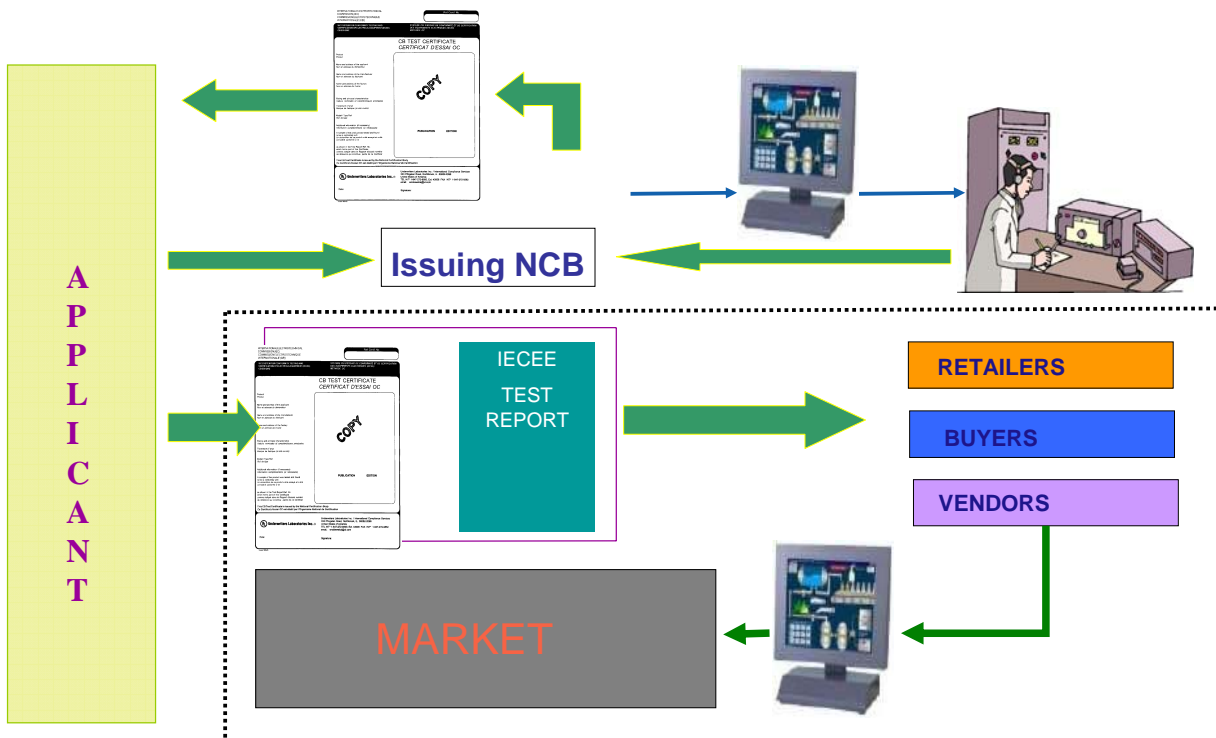
Process Upstream-Downstream



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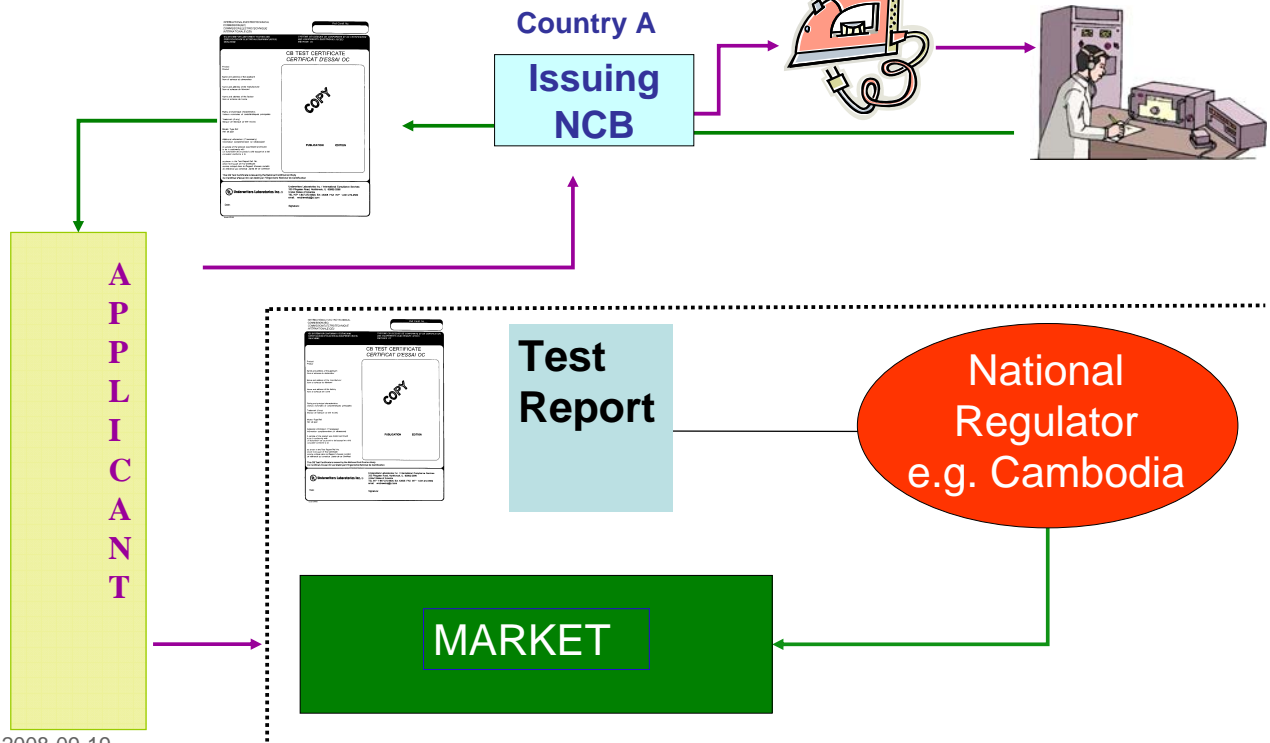
SEEKING WHAT ? Direct access to a market ?



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SEEKING WHAT? Access into Regulatory Market?

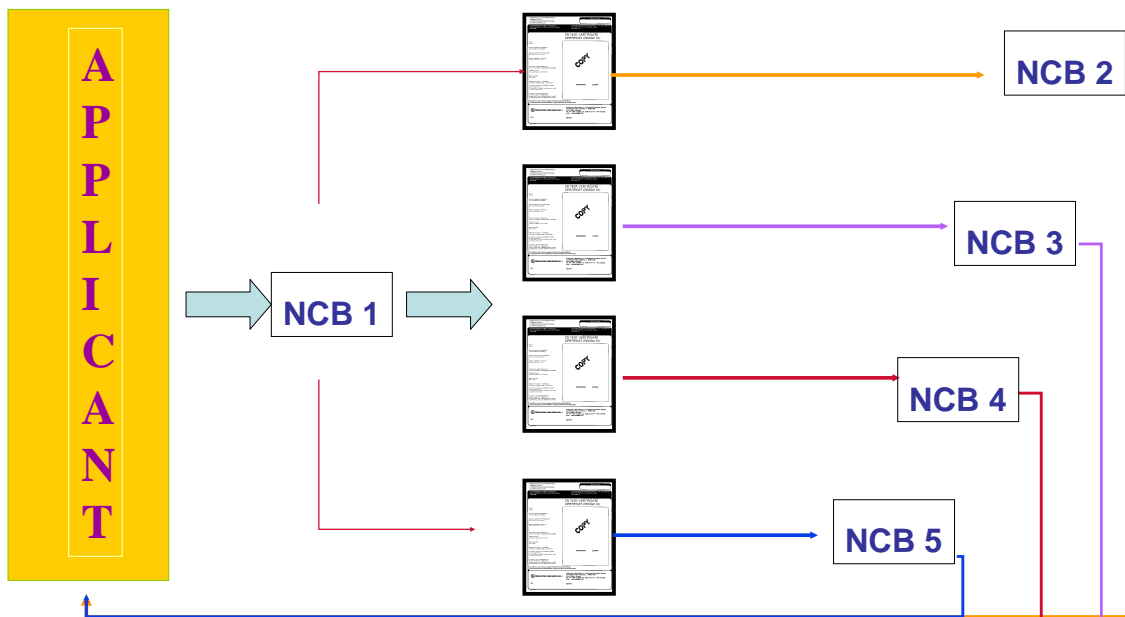


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DOWNSTREAM LEVEL

Applications delegated to the Issuing NCB



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