



Fédération Internationale pour la Sécurité des Usagers de l'Electricité  
International Federation for the Safety of Electricity Users  
Federacion Internacional para la Seguridad de los Usuarios de la Electricidad

---



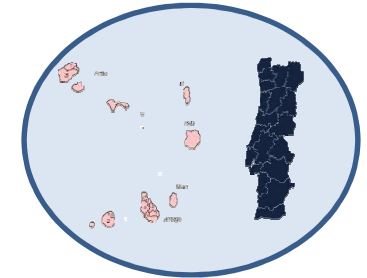
PROJECT

**DGE CAPE VERDE - CERTIEL  
PORTUGAL**

Forum International Fisuel – Belfast / Irlande du Nord – 21 et 22 Octobre 2014

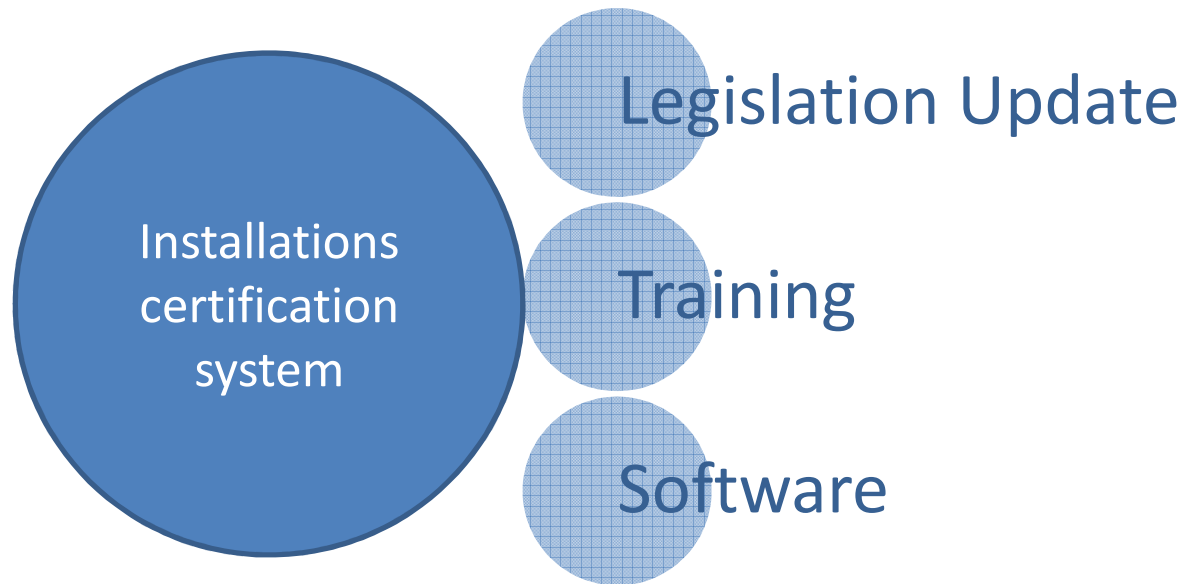
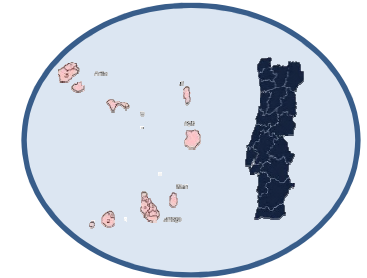
Fisuel International Forum – Belfast / NI – 21st & 22nd of October, 2014

## Purposes of the project

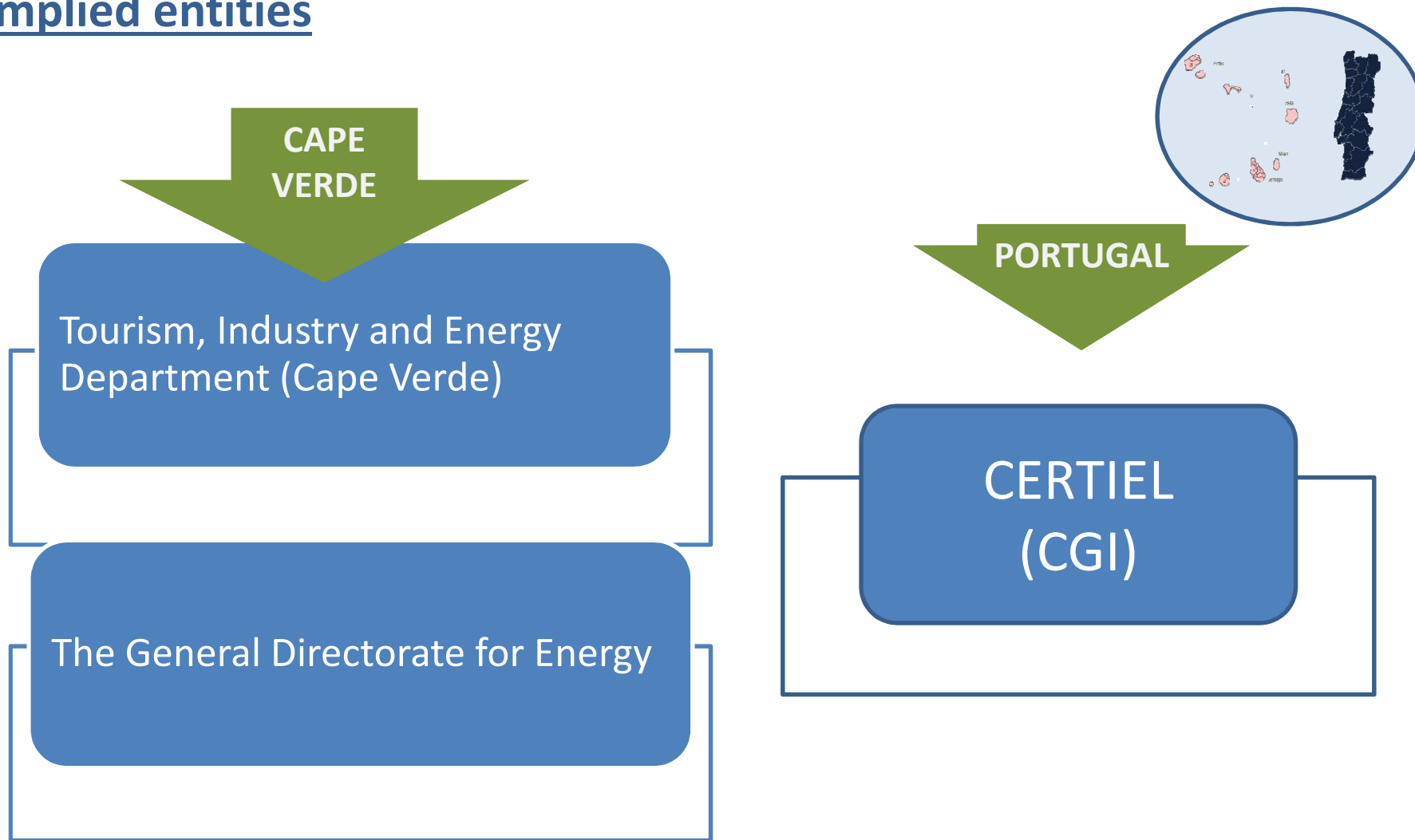


**Project aiming the consumers security and of electric installations in low voltage in Cape Verde supported in the implementation of a certification system**

## The Project Axis

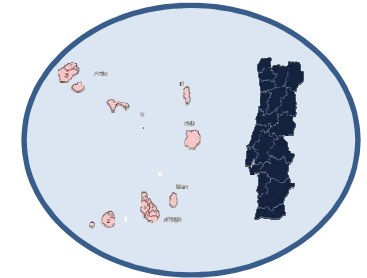


## Implied entities



## Projet Axis

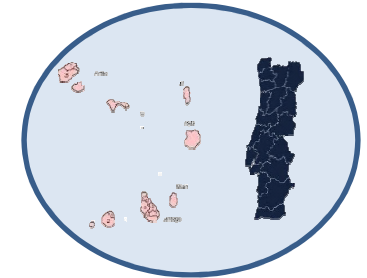
1<sup>st</sup> phase



- Work with Cape Verde government agencies on the revision of the published legislation regarding:
  - Licensing regulation on low voltage installations;
  - The technician statute;
  - Technical rules concerning the conception and erection of low voltage electric installations

## Project Axis

2<sup>nd</sup> phase

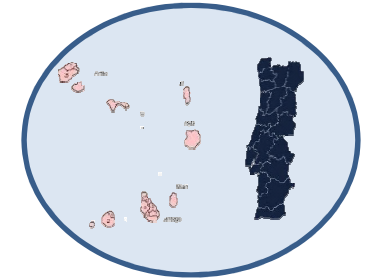


## Work with the Cape Verde government agencies on training of a team of trainers:

- about the new legislation on low voltage electric installations licence procedures
- about the new legislation on technical rules of conception and erection of low voltage electric installations

## Project Axis

**3<sup>rd</sup> phase**



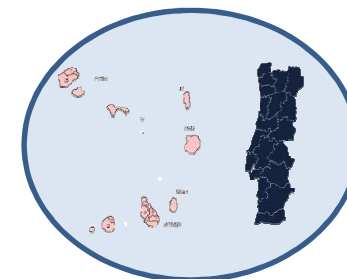
## Database/software:

- Creation of all conditions which will allow the application of legislation by the use of a light database allowing DGE becoming the entity managing the certification and licencing procedure
- Allow technicians the use of a informatic system assuring the promptness and simplicity of the procedure demanded by regulations.

## Structure of the licence legislation

### Licence regulation

- Defines the low voltage installations licence procedure
- Independent regarding the other obligations such as the municipality demands



### Responsibilities

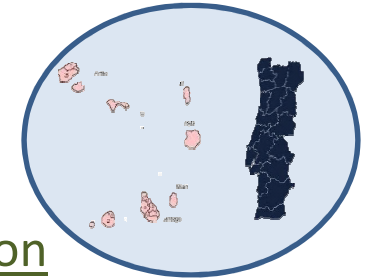
- The licence responsibility belongs to the DGE services
- The energy supplier (ELECTERA) assures the creation of the installations at the informatic system



## Licence legislation structure

### Technicians statute

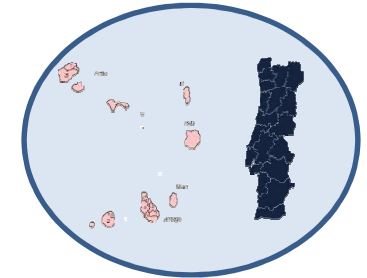
- Determines the conditions of practice for the profession through the different levels of technical training
- Establishes the rules that technicians must respect concerning the conception and erection of installations so that they present no risks for the users.



### Responsibilities

- The professional orders recognize the engineers.
- The technicians with lower levels of training were recognized by the government that also ensures their registration

## Structure of the technical legislation

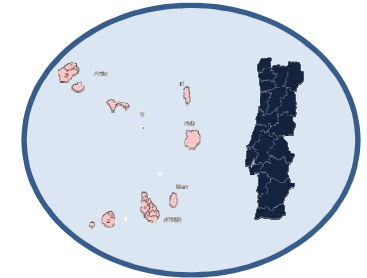


### Purpose

- Create technical regulations based on European laws (all references to European legislation were kept)
- Assure that all security conditions for the erection of electrical installations is considered by the document
- Assure that the professionals accede a straightforward document

## Structure of the technical legislation

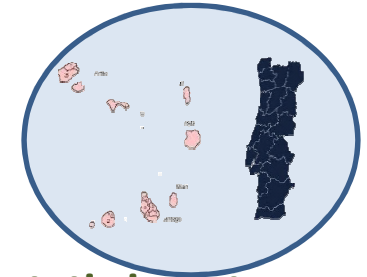
### Principles followed in the conception design



- Adopted as a reference, the contents of the RTIEBT, legislation in force in Portugal since 2007;
- The conditions and regulations regarding high and low voltage (AT, MT) were not considered;

## Structure of the technical legislation

### Principles followed in the conception design

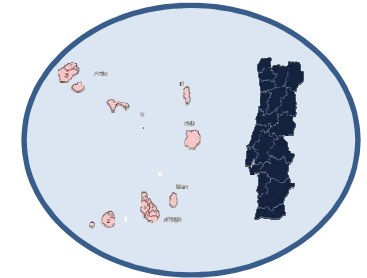


- The specific size of certain types of equipment has been suppressed as static invertors or transformers;
- The information on the same issue, that were scattered on two or three parts of the base document, were added on a single cluster of related articles, eliminating the duplication of regulations and tables.
- We have adopted an information structure identical to the original document.



## Structure of the technical legislation

### Results obtained

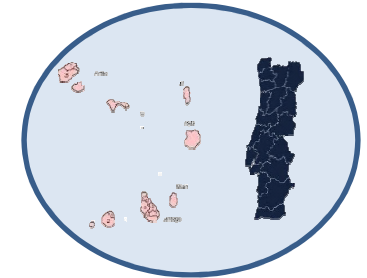


**A document composed by 6 chapter's.**

- **Definitions**
- **General rules**
- **Protection to guarantee security**
- **Specific rules for different types of installations**
- **Collective installations of buildings**
- **Verification and maintenance of installations**

## Training

## Object

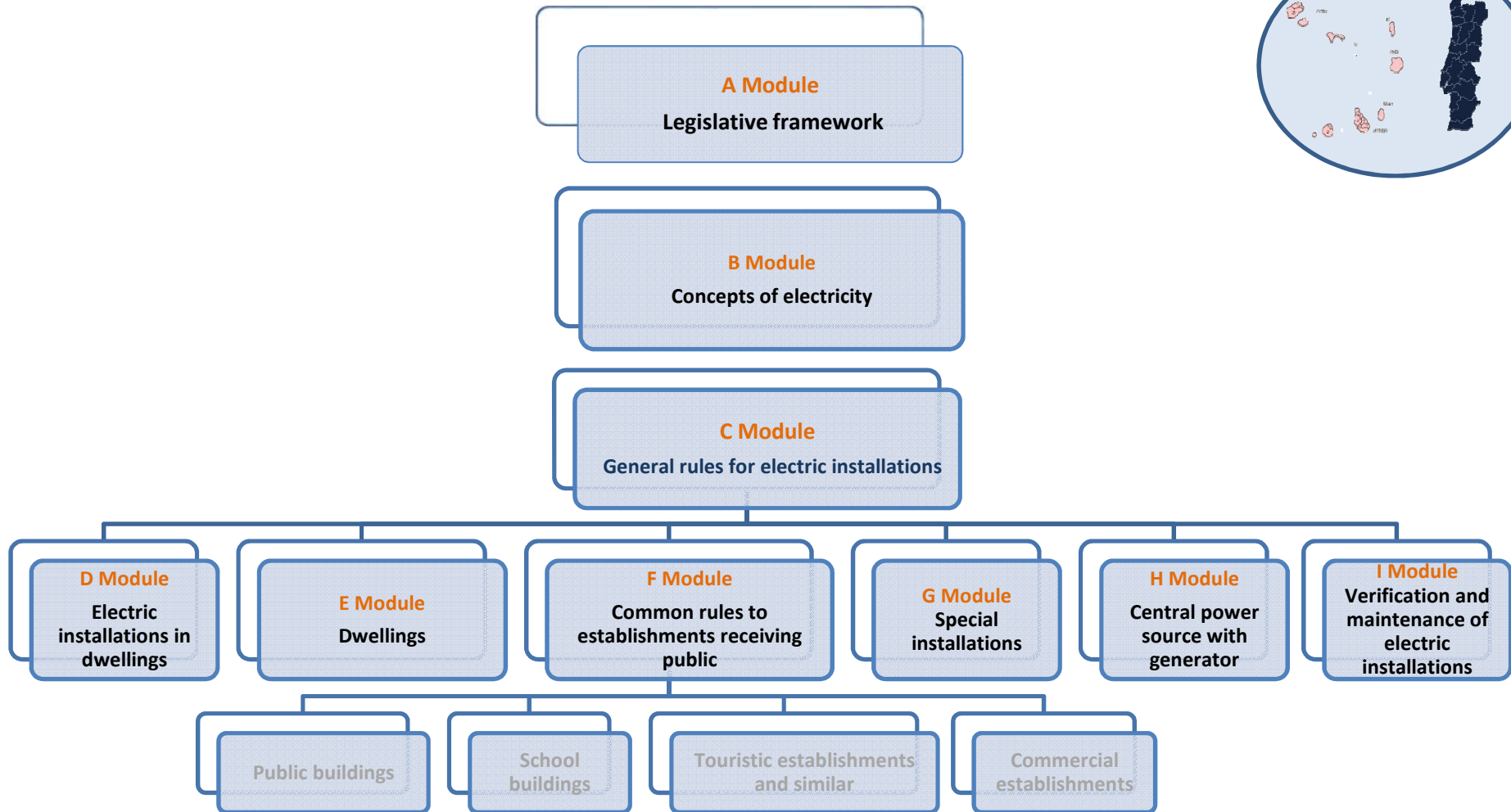
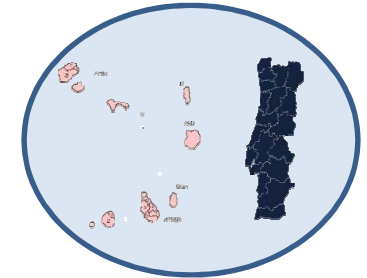


- Preparation of a training team, selected by DGE CV, which will allow them to become trainers of electricians at Cape Verde.

## Training's area of expertise

- Legislative structure
- Fundamental principles of electricity
- Presentation of new technical rules to be respected in conception and erection of low voltage installations in Cape Verde.

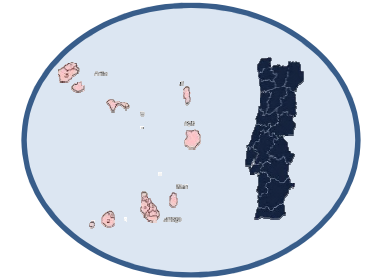
# Technical training structure



## Training

### Training Team

- The training team will be composed of two elements of CERTIEL's technical staff.
- The conception and preparation of the traineeship will be of the responsibility of the technical director and coordinated by the innovation and quality director.



### Means

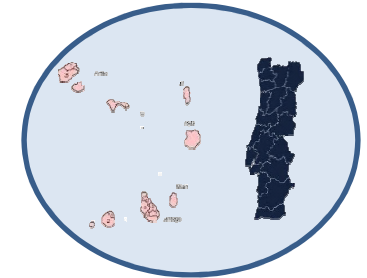
- Traineeship in classroom at Cape Verde;
- Documentation on different subjects;
- Cupboards;

### Estimated duration

- 80 hours



## Software development

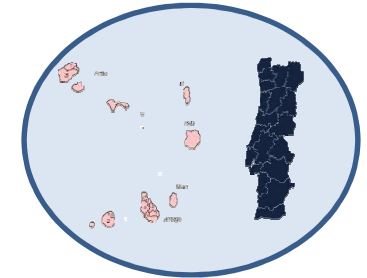


In association with CGI, the supplier of CERTIEL's software

Phase 1

- To prepare the Web site
- Registration on the web site of technicians
- Personal Card for professional usage (optional)

## Expected followings phases



- **Definition of an inspection model**
- **Implementing of a software for the management of inspection and certification of the installations**



Fédération Internationale pour la Sécurité des Usagers de l'Electricité  
International Federation for the Safety of Electricity Users  
Federacion Internacional para la Seguridad de los Usuarios de la Electricidad

---

**THANK YOU**

**MERCI**



Forum International Fisuel – Belfast / Irlande du Nord – 21 et 22 Octobre 2014

Fisuel International Forum – Belfast / NI – 21st & 22nd of October, 2014