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السلامة الكهربائية**  
Electrical Safety Experts Symposium




**certiel**

## The verification of electrical installations in Portugal


By: Mr. José Gomes  
From: Fisuel, CERTIEL (association for certification of electrical installations), Portugal

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## PORTUGUESE ELECTRICAL INSTALLATIONS CERTIFICATION BODY

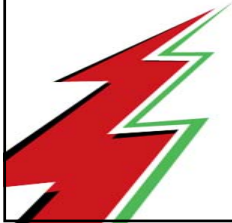
**José Tomaz Gomes**  
Member of the Board of Certiel



## CERTIEL – articles



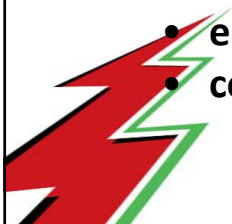
- **non-profit-making private association, recognised as a public interest institution under the guidance of the Ministry of Economy**



## CERTIEL – articles



- **six groups of associated members:**
  - **electrical contractors associations**
  - **building contractors associations**
  - **electrical wholesalers associations**
  - **electrical manufacturers associations**
  - **energy suppliers**
  - **consumers associations**



## CERTIEL – action fields



- approval of electrical installation designs
- inspection and certification of electrical installations
- registration, inspection and certification of microgeneration installations
- professional training



## INSPECTION AND CERTIFICATION OF ELECTRICAL INSTALLATIONS



## CERTIEL – inspection system



- new installations
- renovation of installations (increase of power)
- request of the owner

• **THERE ARE NO PERIODIC VERIFICATIONS OF ELECTRICAL INSTALLATIONS**

## CERTIEL – inspection system

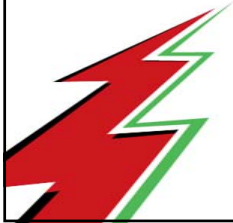


- Certware – a web based software developed by Certiel:
  - processes the inspection submissions
  - makes the selection of the installations to be inspected
  - and produces the certificate of electrical installations compliance

## CERTIEL – inspection system



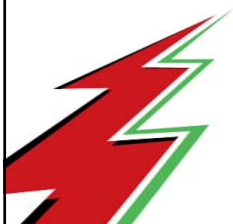
**30% of the installations to be inspected are chosen through a computer sample, based upon established criteria which are fixed in advance**

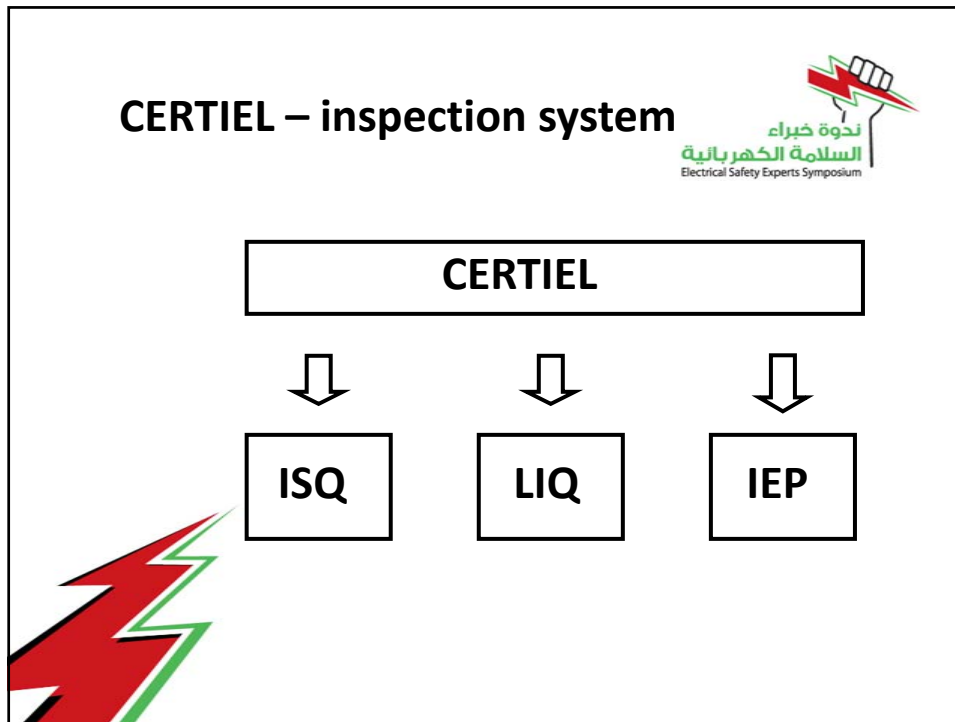


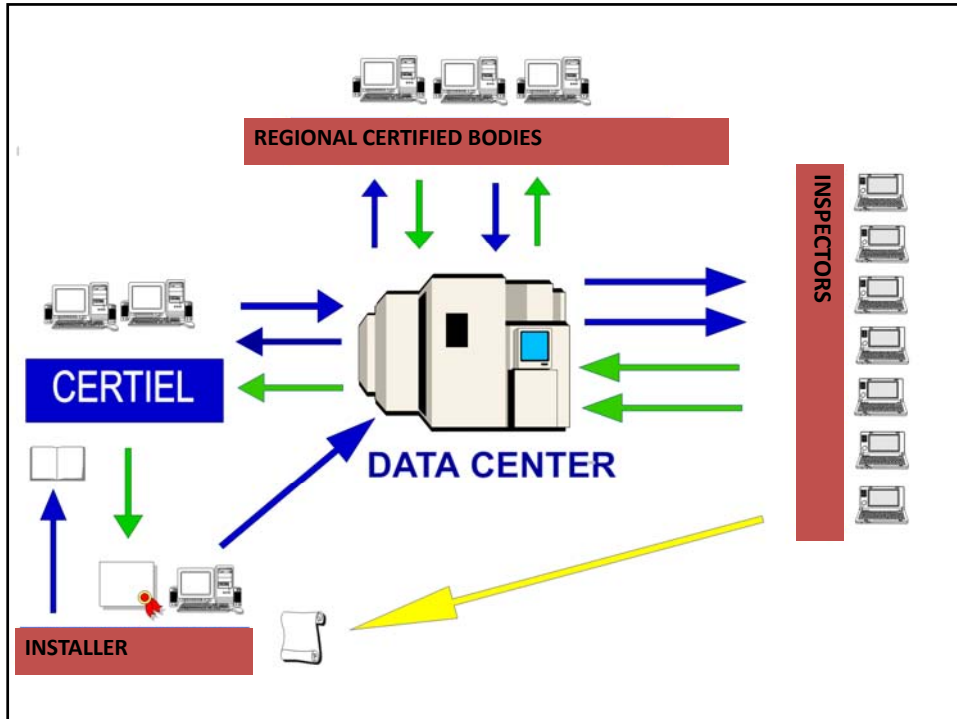
## CERTIEL – inspection system



**the inspections are carried out by regional certified bodies which have signed contracts with Certiel subsequent to a public tender**

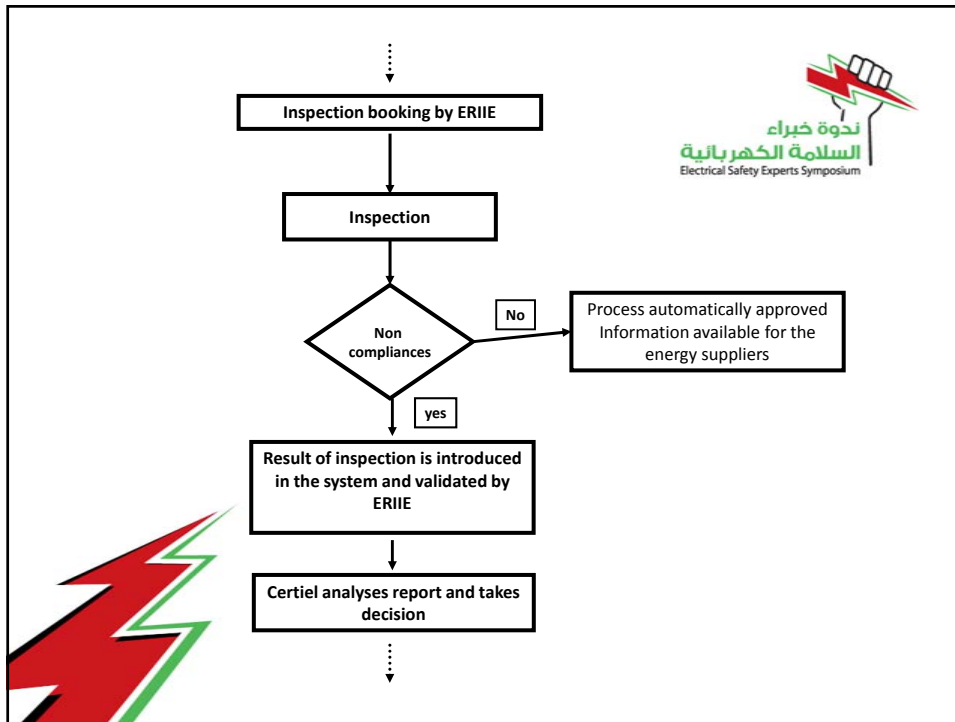
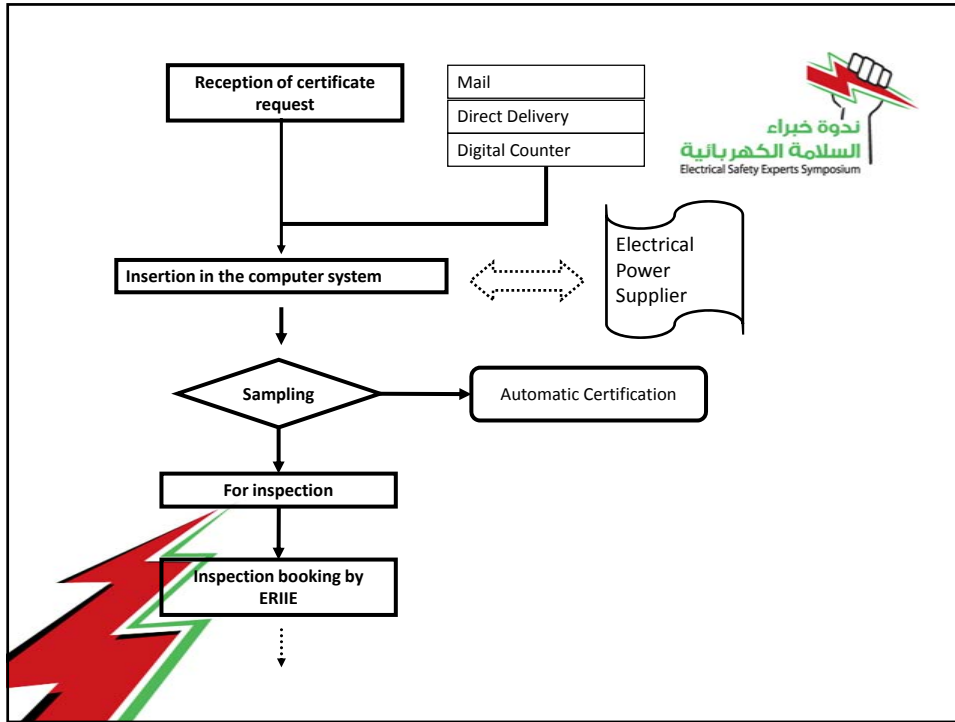




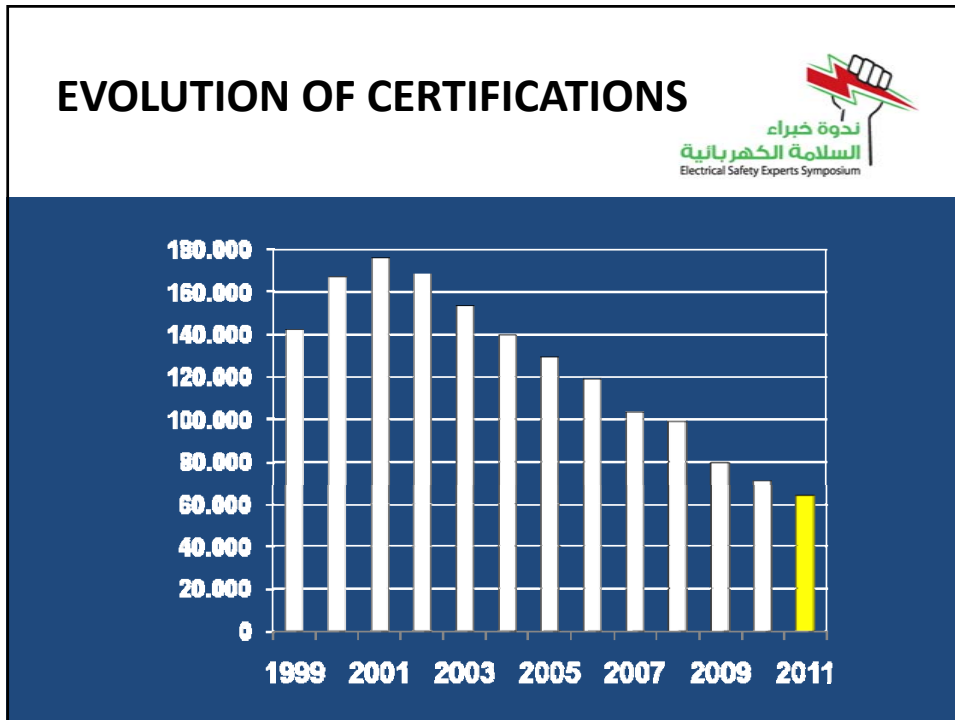
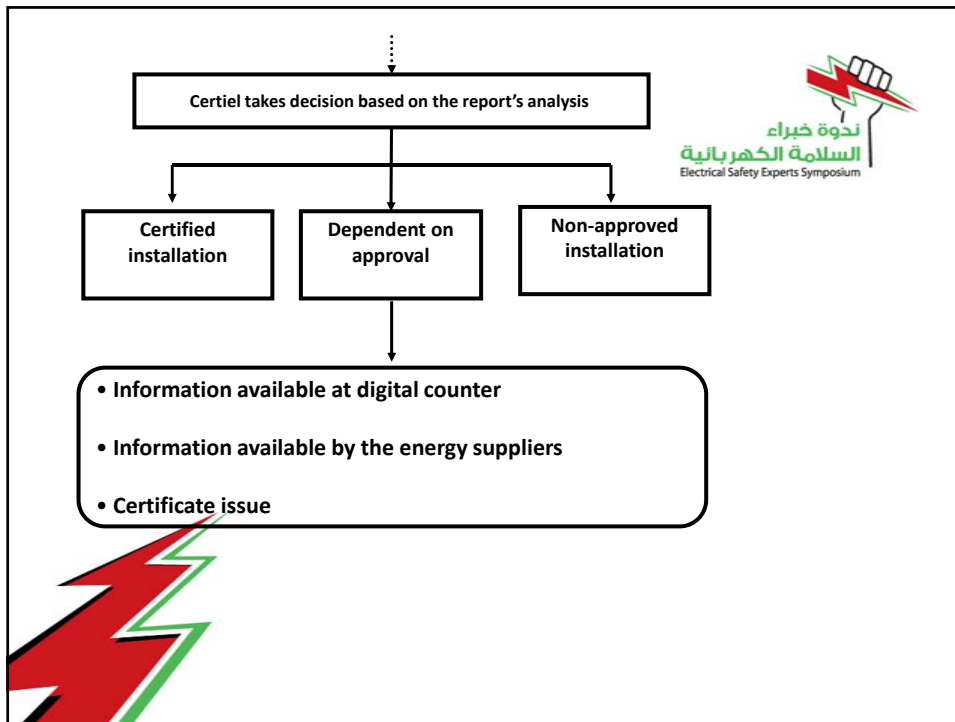


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**VIDEO**











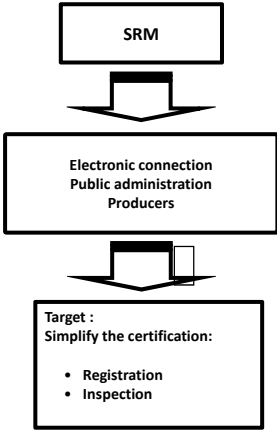
# REGISTRATION, INSPECTION AND CERTIFICATION OF MICROGENERATION INSTALLATIONS



## SRM – microgeneration registration system








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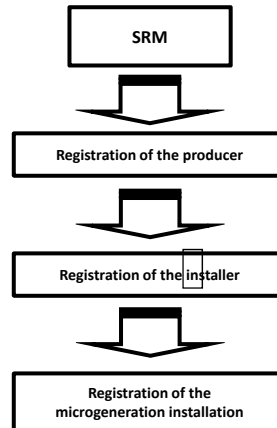
graph TD
    SRM[SRM] --> ECP[Electronic connection  
Public administration  
Producers]
    ECP --> Target[Target :  
Simplify the certification:  
• Registration  
• Inspection]
    
```

**Target :**  
Simplify the certification:

- Registration
- Inspection



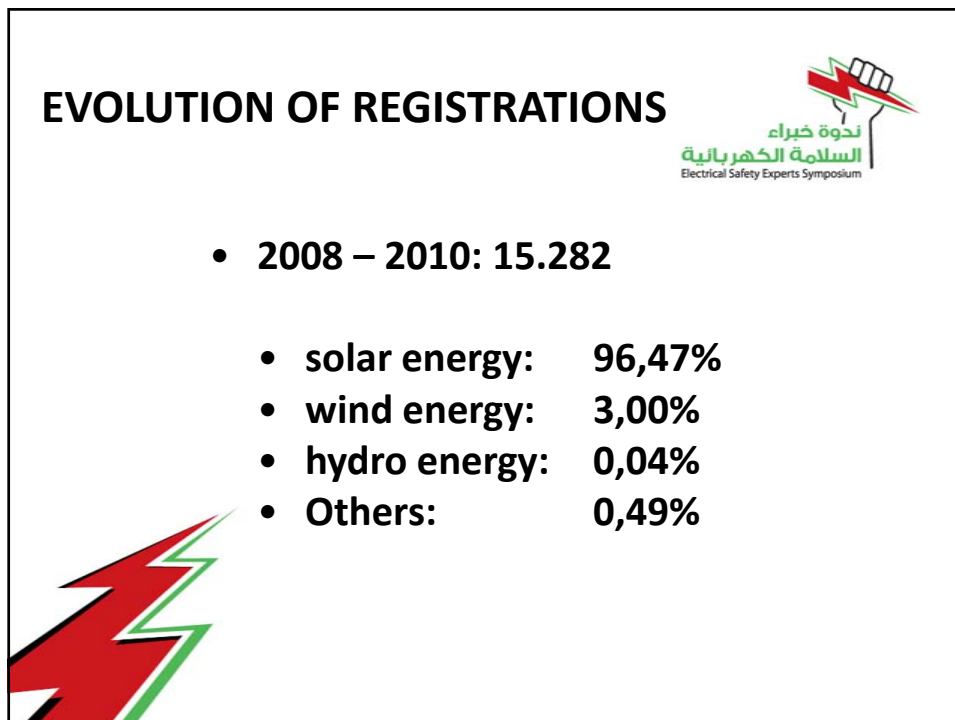
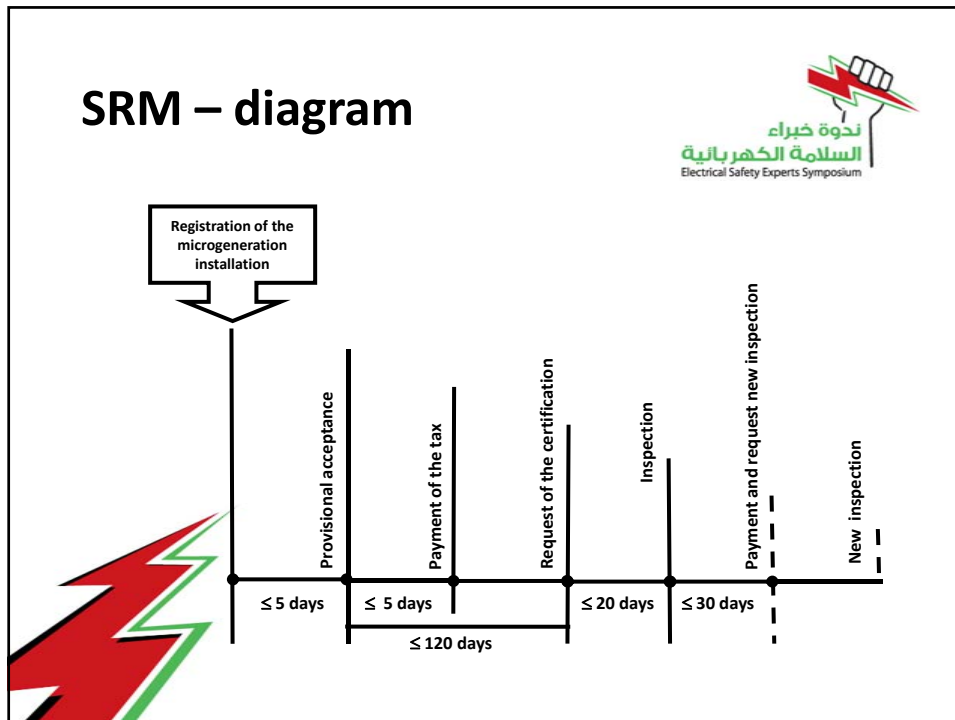
## SRM – microgeneration registration system



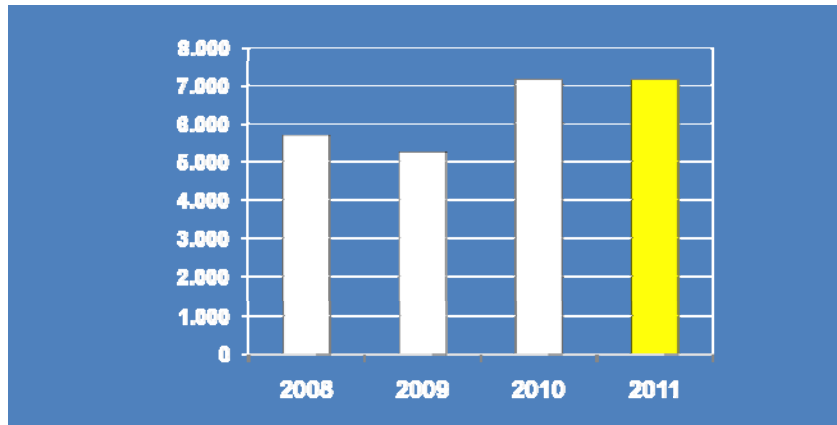
## SRM – inspection system



- new installations
- periodic verification:
  - each year 1% of all installations
  - the installations to be verified are chosen through a computer sample, based upon established criteria



## EVOLUTION OF CERTIFICATIONS



Total certified installations - 9.537  
Total of installed power- 33.896 Kw

## CERTIEL – results



- a better knowledge of the electrical and microgeneration installations regulation
- wider use of certified equipment
- safety of the installations
- satisfaction of the owners and consumers

## CERTIEL – future



- to act in a pedagogic way towards the consumers
- to begin the inspection and certification of older electrical installations
- to join efforts and change experiences with similar international bodies





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# THANK YOU

By: Mr. José Gomes  
From: Fisuel, CERTIEL (association for certification of electrical installations), Portugal

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