

# Statistics

# Spain

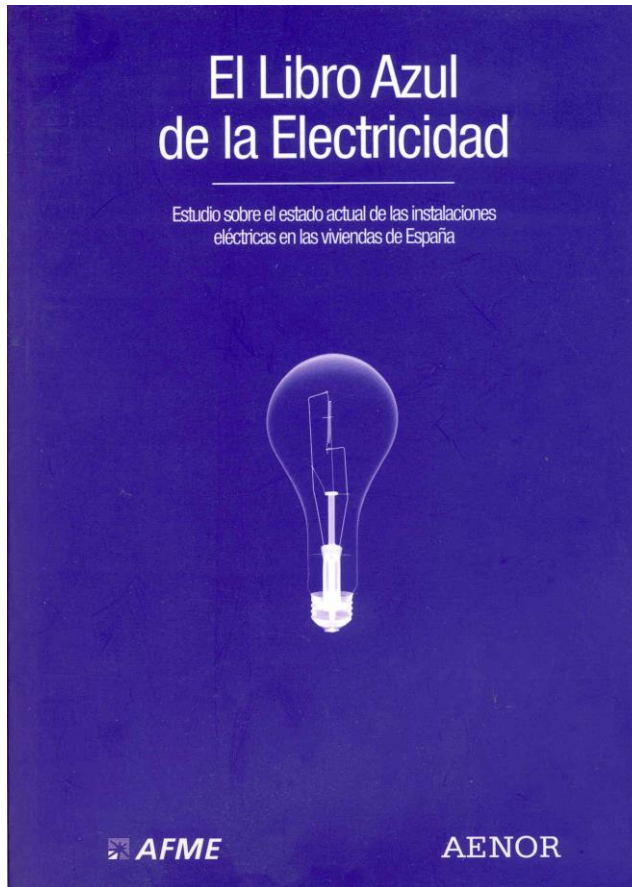
**Presenter:  
Enric Fajula**

**Deputy Technical Director at AFME**



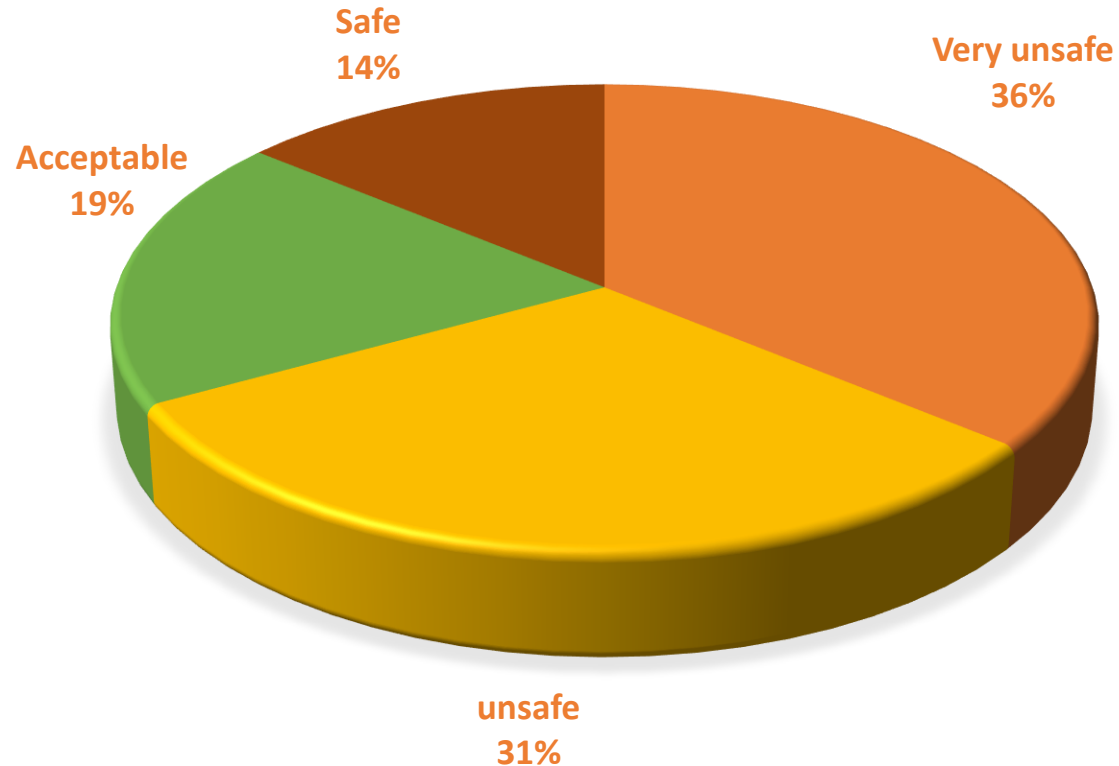
- 1. Blue book of electricity**
- 2. Data from firefighters and insurance companies**

**Two thirds of Spanish households have an unsafe or very unsafe installation**



- ✦ Study prepared by AFME and published in 2000 by AENOR
- ✦ To know the state of the electrical installations in dwellings
- ✦ Sample of 762 dwellings distributed throughout Spain.

## State of electrical installations in Spain

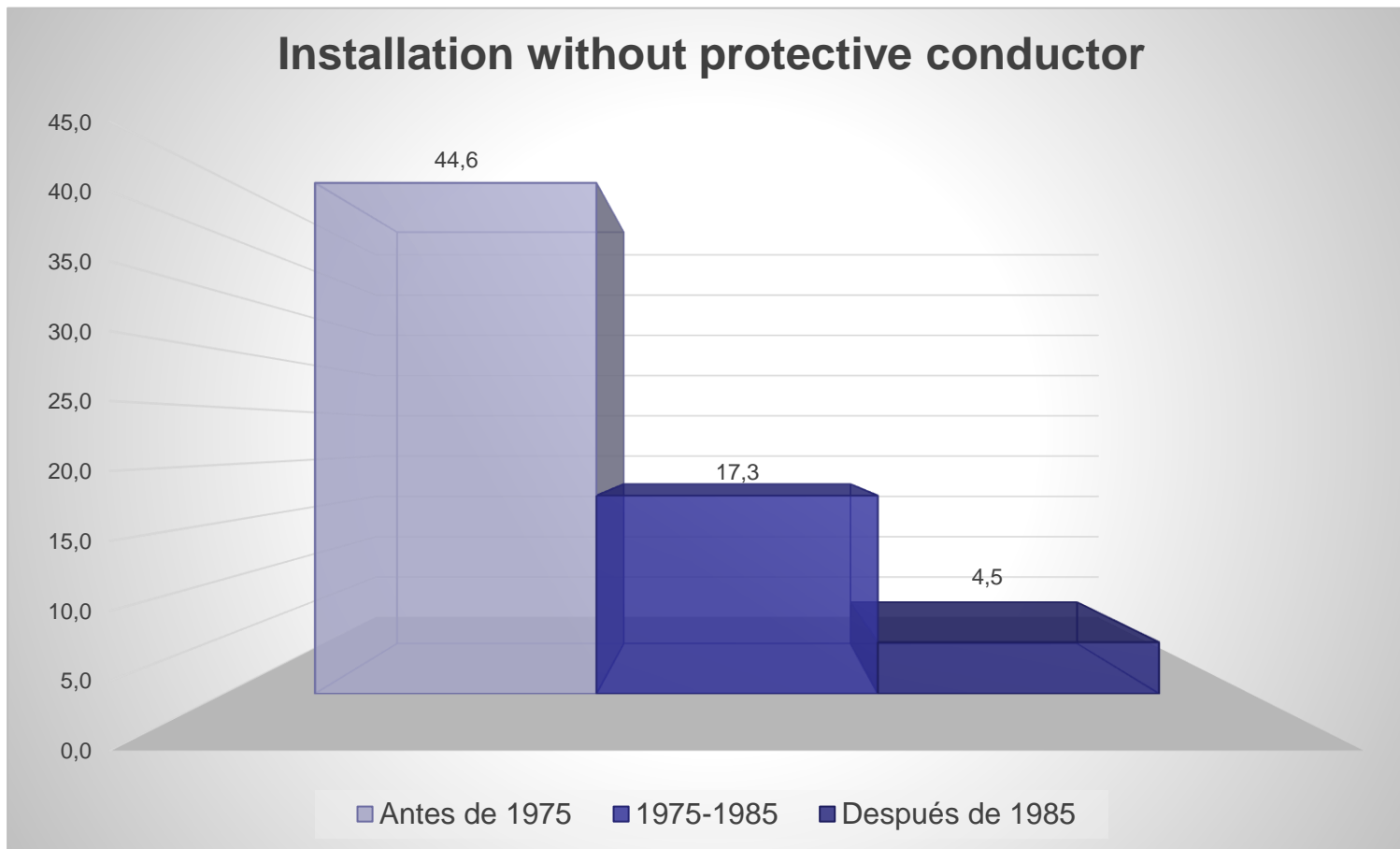


## Installation without protective conductor



Risk of electric shock

## Installation without protective conductor

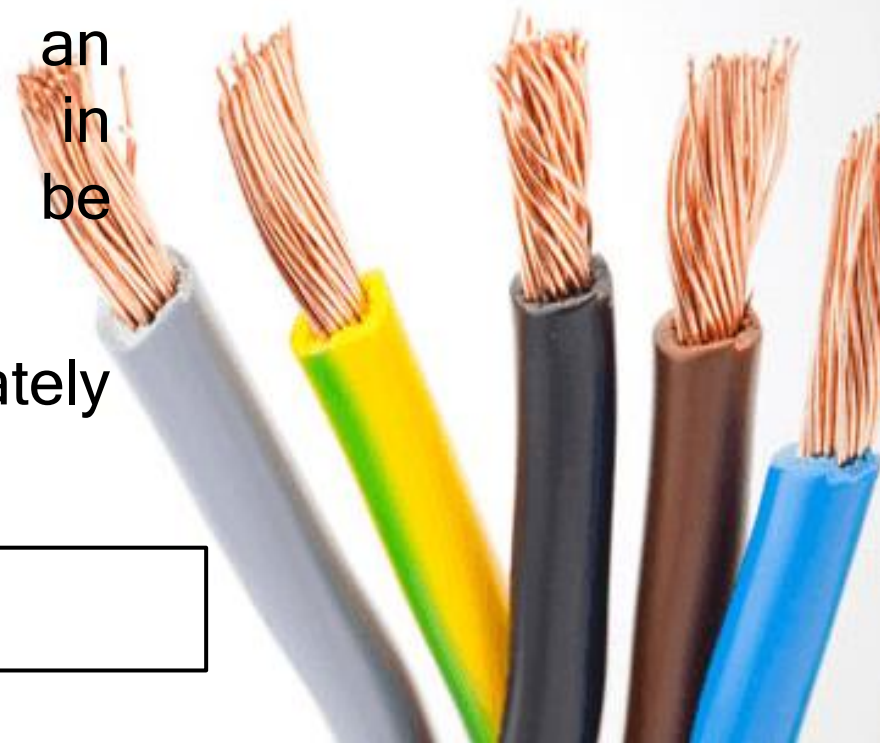


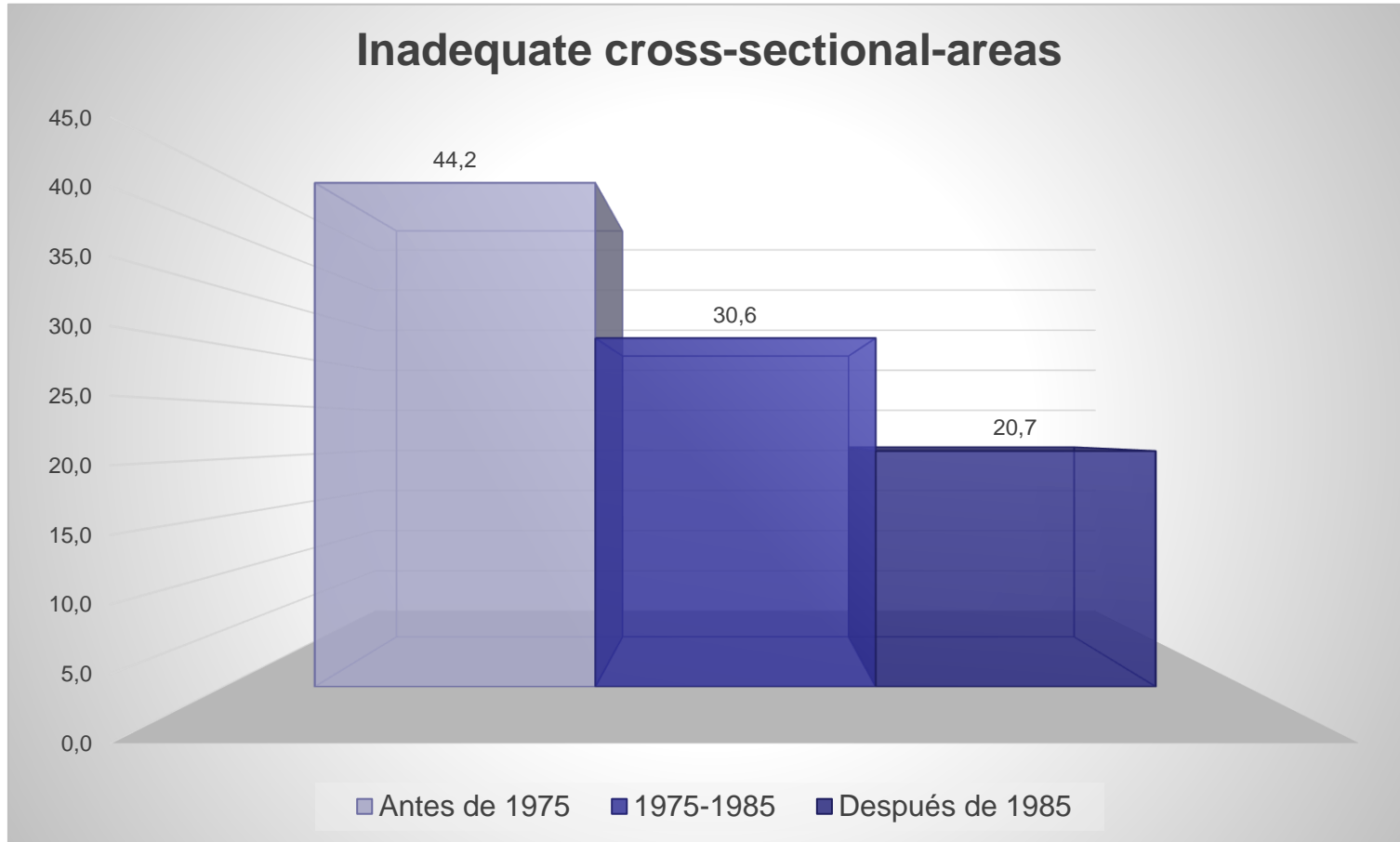


## Inadequate cross-sectional-areas

- ❖ Conductors do not have an adequate cross-section-area in accordance with the load to be supplied
- ❖ Conductors are not adequately protected against overcurrent

**Fire risk**



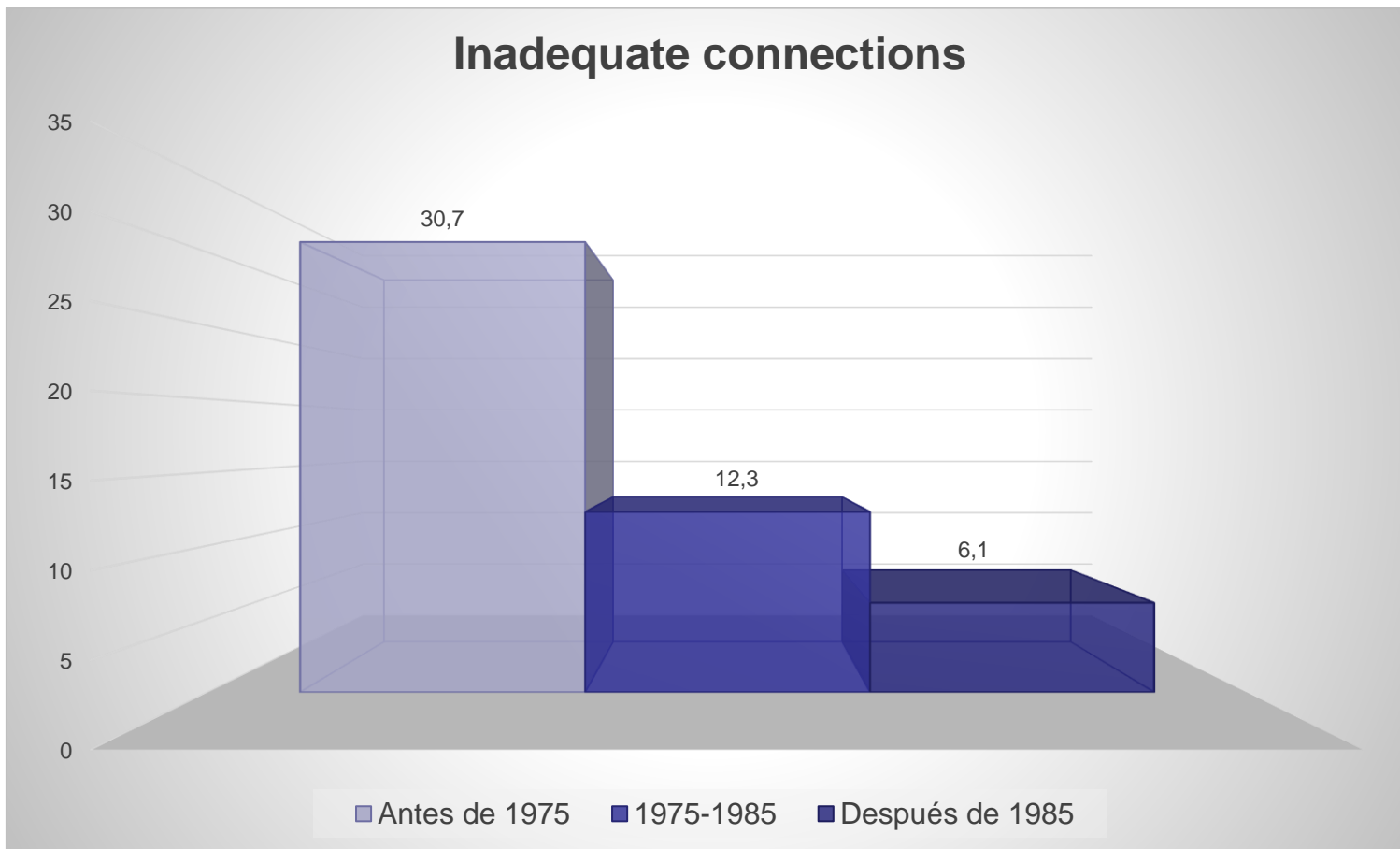


## Inadequate connections

- ✱ Connections made without the appropriate connecting device
- ✱ Junction boxes without cover



**Risk of fire and electric shock**

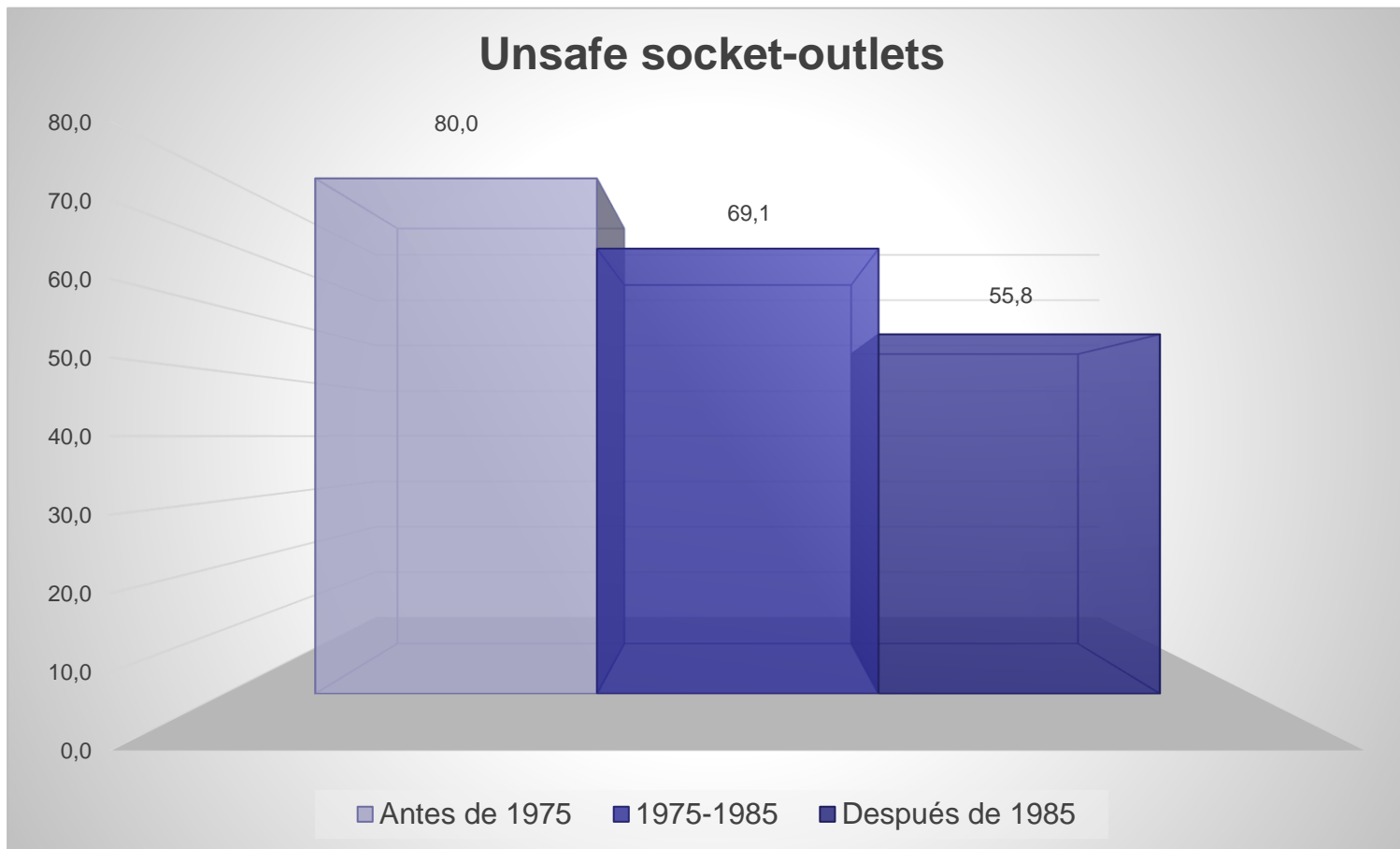


## Unsafe socket-outlets

- ❖ Socket-outlets without continuity of the protective conductor (earth)
- ❖ Socket-outlets in poor condition



**Risk of fire and electric shock**



- ✦ Every year in Spain approximately 0,1% of the dwellings are refurbished (Spanish Government)
- ✦ However, such refurbishment does not always cover the electrical installation
- ✦ Therefore, we can consider that the conclusions of the Electricity Blue Book are still valid for dwellings built up to the year 2000

- ✦ Currently, more than 20,170,000 Spanish homes are over 20 years old (INE).
  - Of these, only 33.3% have a safe or acceptable electrical installation (Blue Book)
- ✦ Currently, more than 8,600,000 Spanish homes are over 50 years old (INE).
  - Of these, only 14.3% have a safe or acceptable electrical installation (Blue Book)

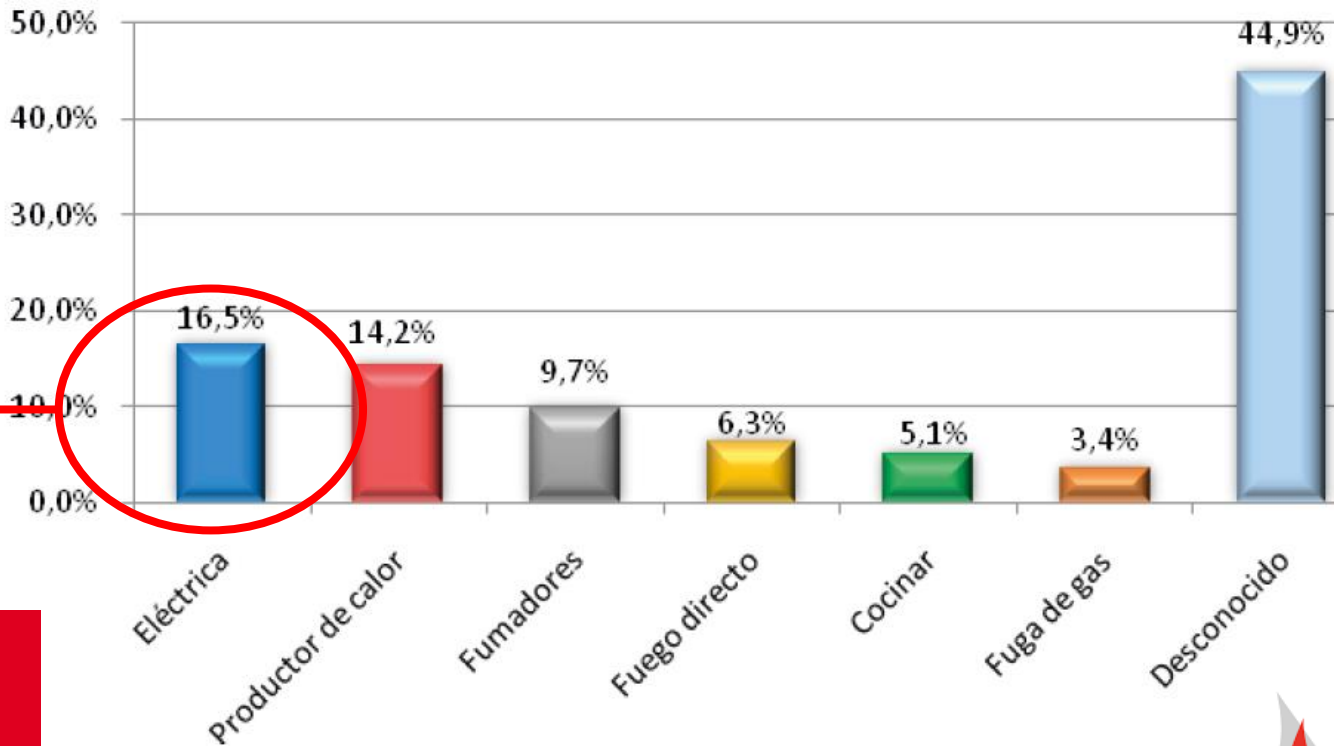


## ✦ We have facilities...

- \* Aged, with elements worn out by wear and tear
- \* Overloaded, with more loads than were considered in its design
- \* Sometimes modified by unqualified persons

- ✦ We have installations ...
  - \* Unsafe,
  - \* With fire risk
  - \* With risk of electric shock

# Data from firefighters

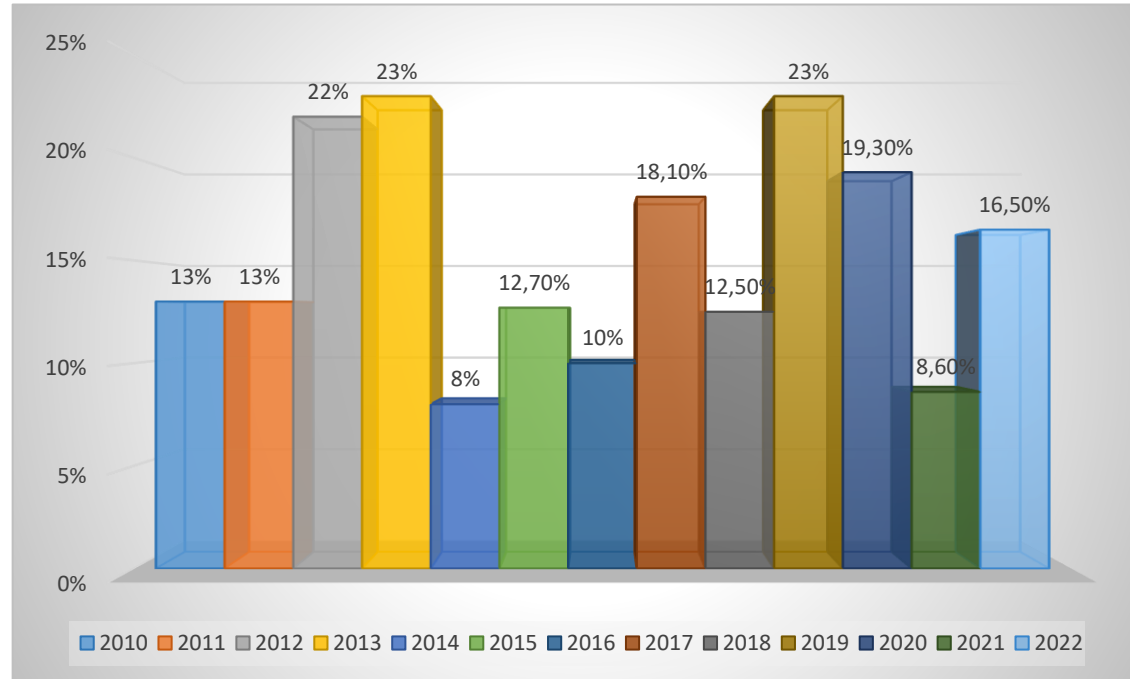


**29  
fatalities!!!**



Fatalities in dwellings according to probable cause of fire  
Source: Fundación MAPFRE 2022 Study - APTB

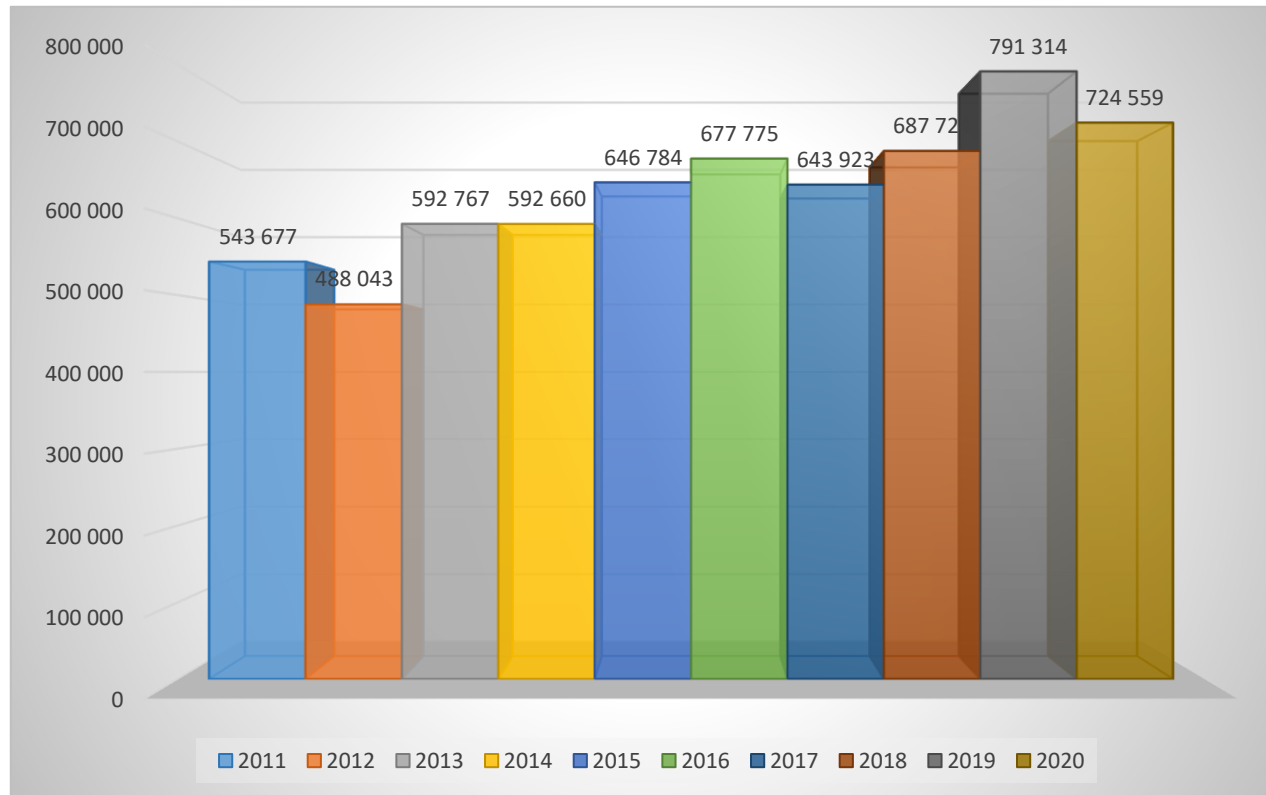




**Electrical origin:**  
Appliances, sockets, adaptos  
or extension cords

**Fatalities in dwellings where the probable cause of fire is electrical.**

**Source: Fundación MAPFRE-APTB Studies**



Electrical accidents in dwellings.

Source: UNESPA

