



Bu proje Avrupa Birliđi ve Trkiye Cumhuriyeti tarafından finanse edilmektedir.

This project is co-financed by the European Union and the Republic of Turkey

## Binalarda Enerji Verimliliđinin Artırılması iin Teknik Yardım Projesi Technical Assistance for Improving Energy Efficiency in Buildings Project

### *Barriers and examples of organizational setups in selected EU Member States*

Giovannella D'Andrea



*Daha az enerjiyle daha fazlasını yapmak*

*Doing more with less energy*



**NIRAS**





# Legal Barriers

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- ❖ Importance of a clear legal framework in place
  - ❖ National strategies and plans to be consistent with EU Directives
  - ❖ Legislation on EE and EPB and other related laws complying with objectives stated in the NEEPs and National strategies
  - ❖ Regulatory instruments ensuring implementation of all the conditions and requirements at National, Regional and local level
  - ❖ Planning instruments and Building codes including measures to ensure compliance with EPB legislation and NEEPs objectives
  - ❖ Effective enforcement regulation
  - ❖ Clear organizational structure defining allocation of responsibilities among public Institutions at National, Regional and Local level and their coordination



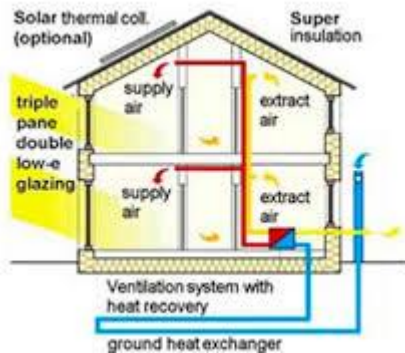


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# Conditions for Implementation

## ❖ National Buildings Renovation Strategies

- ❖ Half of EE measures in buildings target thermal uses in existing buildings. This implies retrofitting of thermal equipment or building envelopes.



Regulations, building codes and mandatory inspections of boilers or air conditioners, are dominant measures used by MS to achieve this objective. Other types of measures include financial incentives (31%), and mandatory information (17%)





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# Conditions for Implementation

## ❖ Nearly zero energy buildings



Minimum energy performance standards for new buildings



Positive impact on EP of the total stock

Conditions:  
Clear setting of definition and targets  
Building Codes update  
Severity of implementation  
Annual rate of construction





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# Conditions for Implementation

## ❖ Nearly zero energy buildings

- ❖ According to Article 2(2) of the EPBD an NZEB “*means a building that has a very high energy performance, as determined in accordance with Annex I.*”
- ❖ The final detailed application in practice of that definition (e.g. what is a “*very high energy performance*”) is the responsibility of the Member States.

**Absence of clear definitions, interim targets and dedicated support measures means that the building sector faces uncertainty over the regulatory and policy framework for NZEBs**



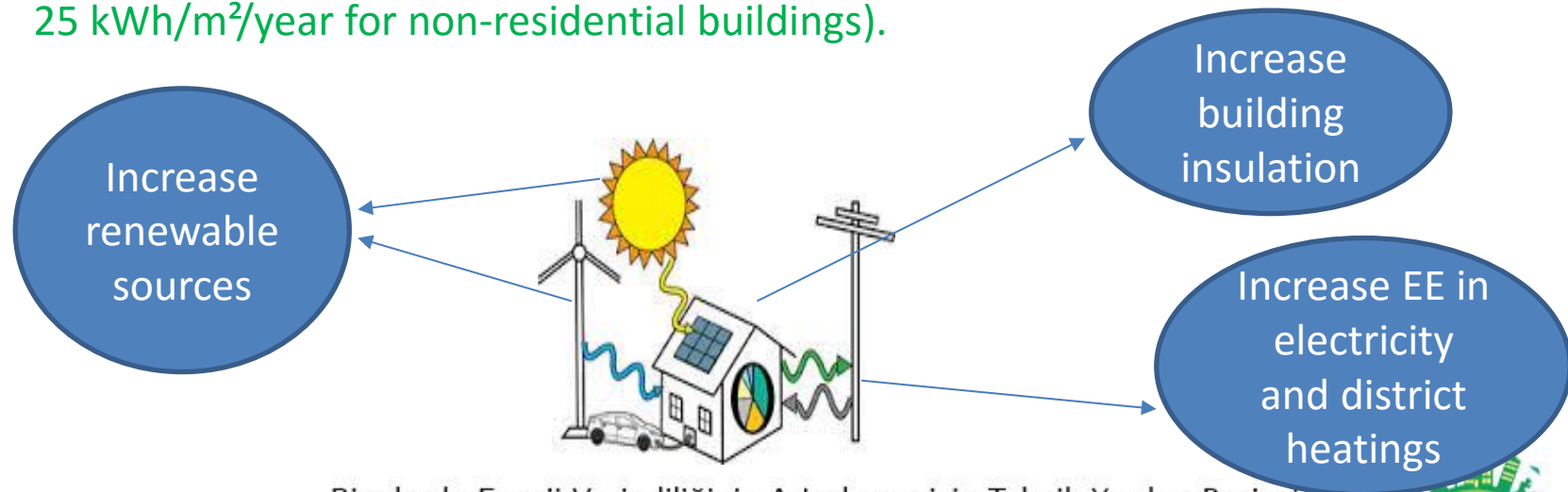


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# Implementation of Nzeb in MS

- ❖ NETHERLANDS : 8 up-dates of building codes last 30 years. 70% energy consumption improvement in new dwellings
- ❖ DENMARK : 4 up-dates of building codes between 1985 and 2010. Each up-date brought 20% energy savings in new dwellings.

Denmark is one of the first EU countries that has already set-up its national nZEB definition and roadmap to 2020 (20 kWh/m<sup>2</sup>/year for residential and 25 kWh/m<sup>2</sup>/year for non-residential buildings).



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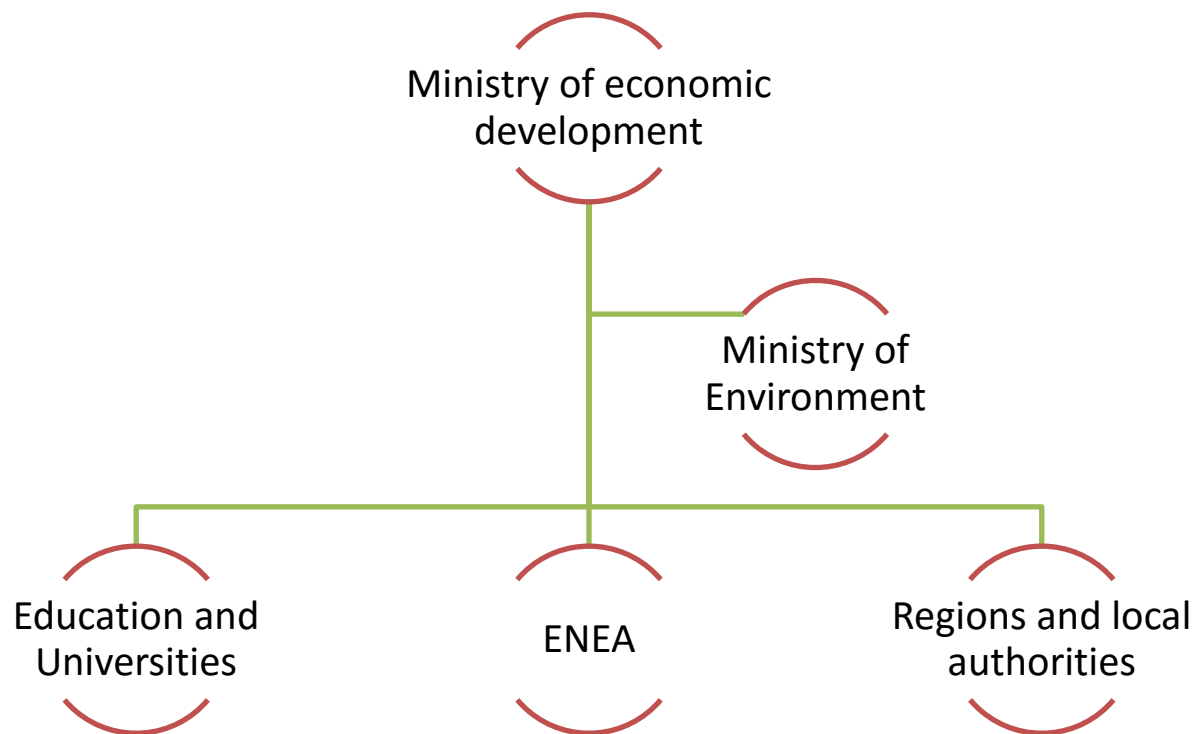






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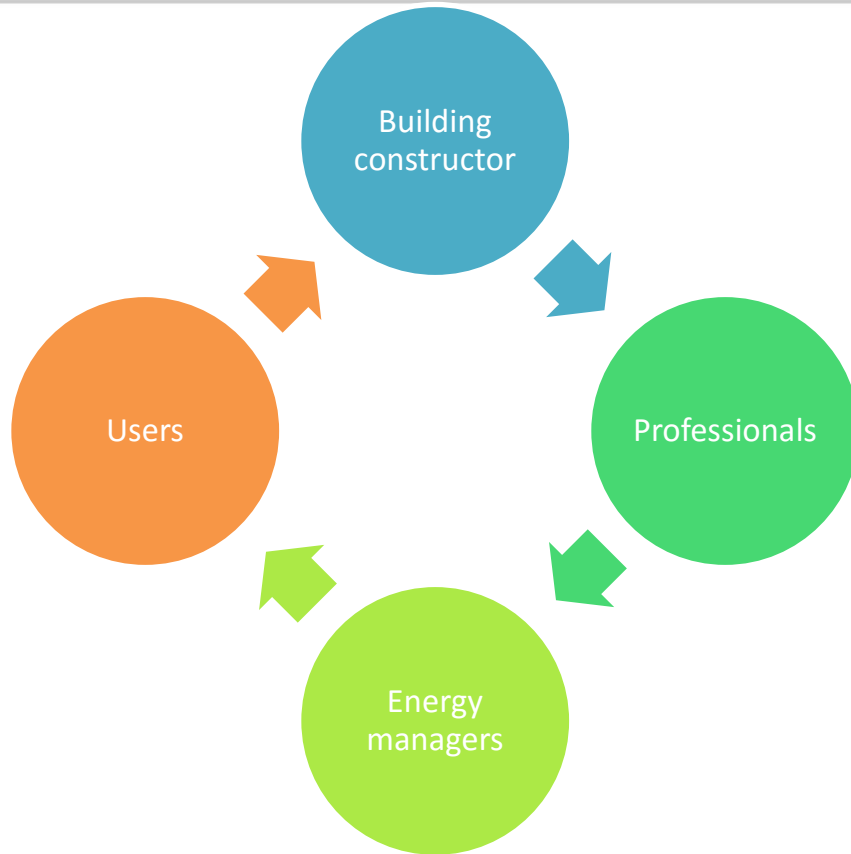
# Organisational set-up in Italy





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# Operators in the market Italy

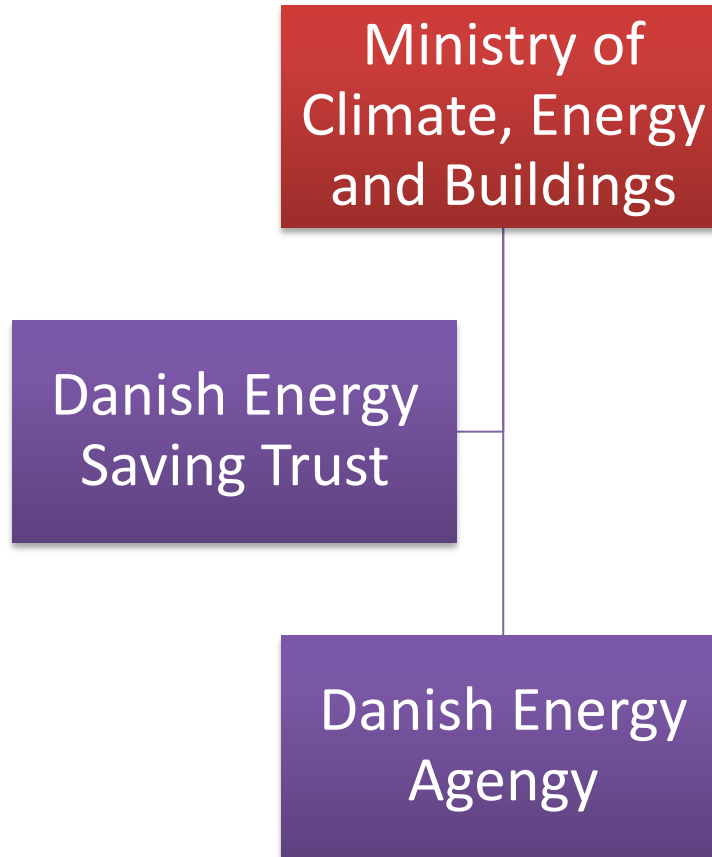






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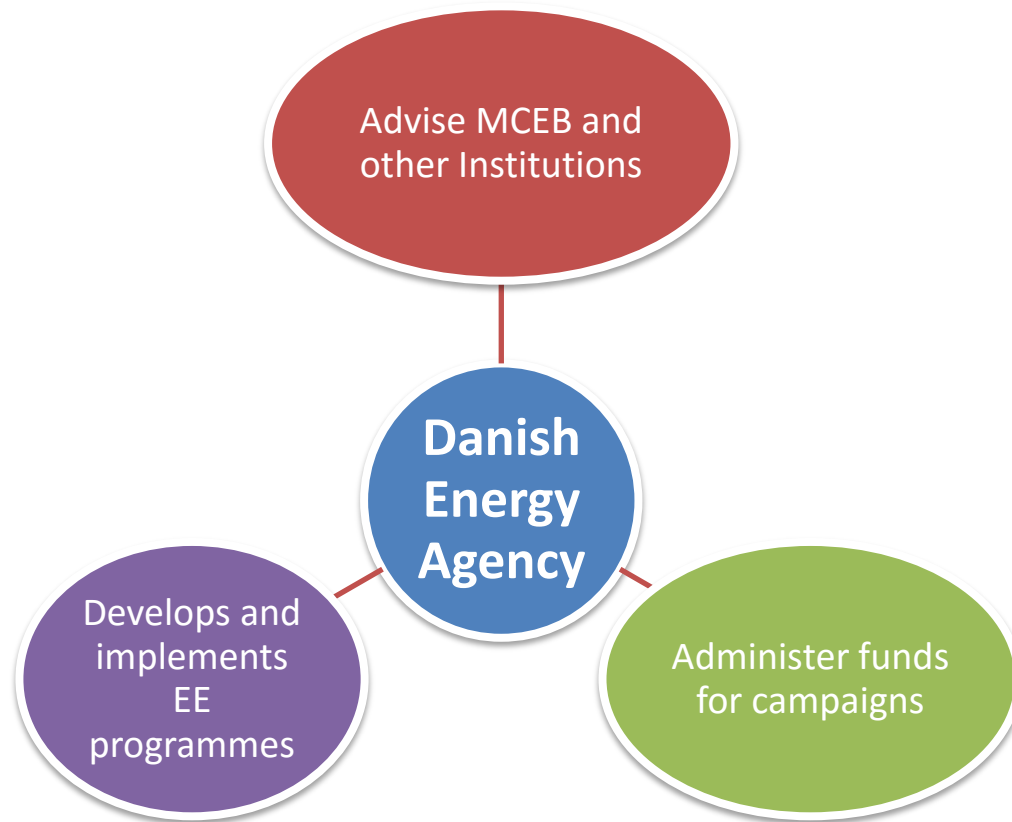
# Organizational set up in Denmark





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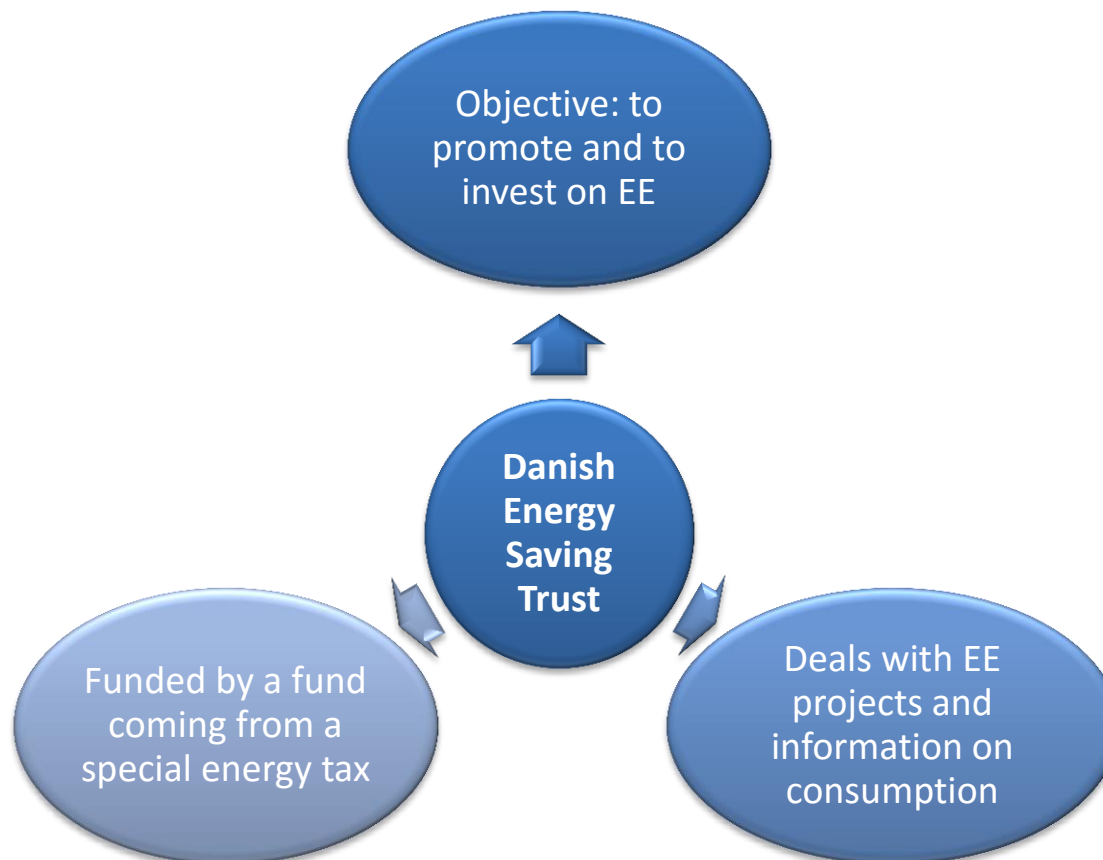
# Organizational set up in Denmark





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# Organizational set up in Denmark





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**Thank you for your attention !**



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