

Christian Stolte, dena

# Germany's ambitious energy targets – how are they delivered?

8<sup>th</sup> November, London

## German Energy Agency (dena) – Ownership and Fields of Competence and Activity.

### – German Energy Agency (dena)

- private corporation
- established in 2000 in Berlin
- currently around 180 employees
- shareholders:
  - Federal Republic of Germany 50%,
  - KfW banking group 26%,
  - Allianz SE, Deutsche Bank AG, DZ Bank AG each 8 %.



## German Energy Agency (dena) – Main reasons why dena was founded by the German government.

Dena's roles are as a

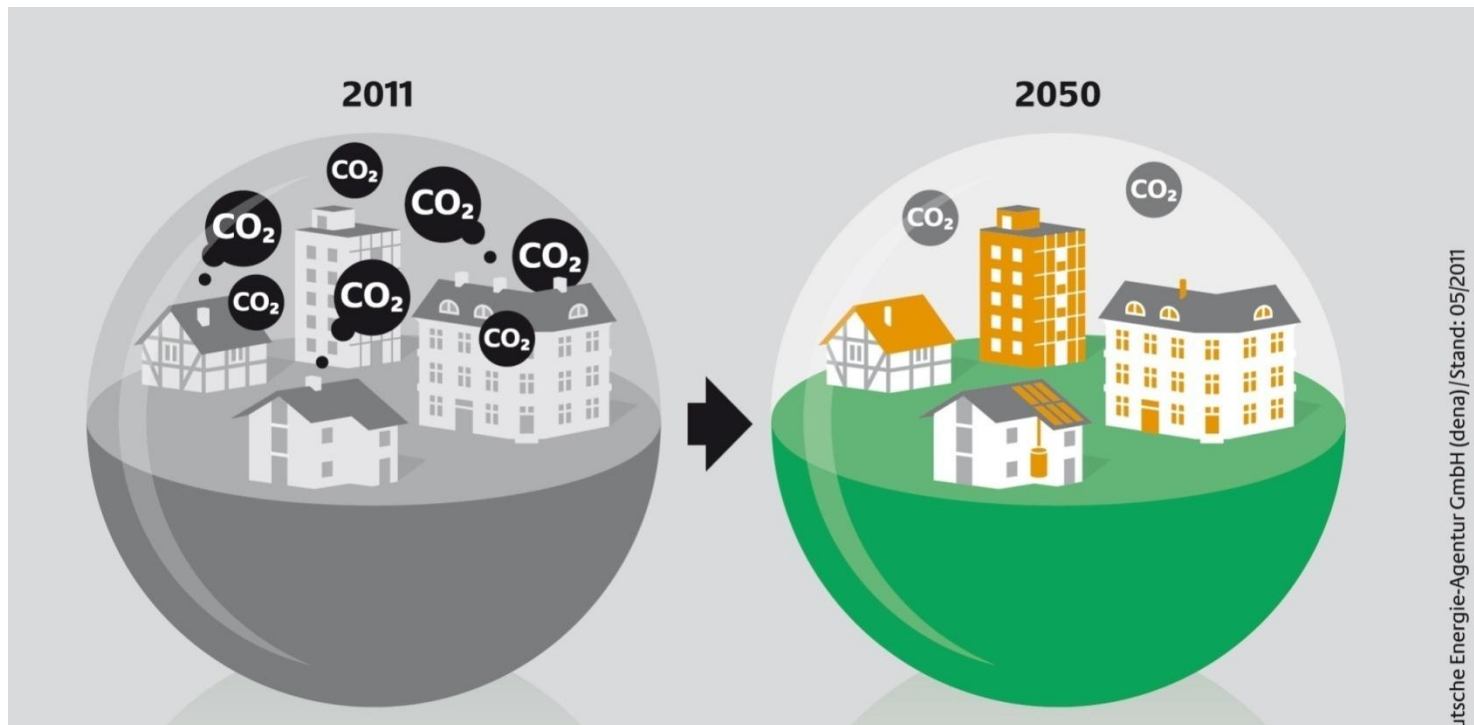
- Center of Excellence
  - Build up and disseminate know-how
  - Provide advice and assistance to the federal government
- Center for information campaigns and market preparation
  - Develop and promote new market instruments
  - Support promotional programmes
- Network supporter
  - Establish and accompany networks of key market players
  - Connect regional and national activities

**dena is the missing link between government, promotional programmes and market activities**

# National Efficiency Targets (Building Sector).

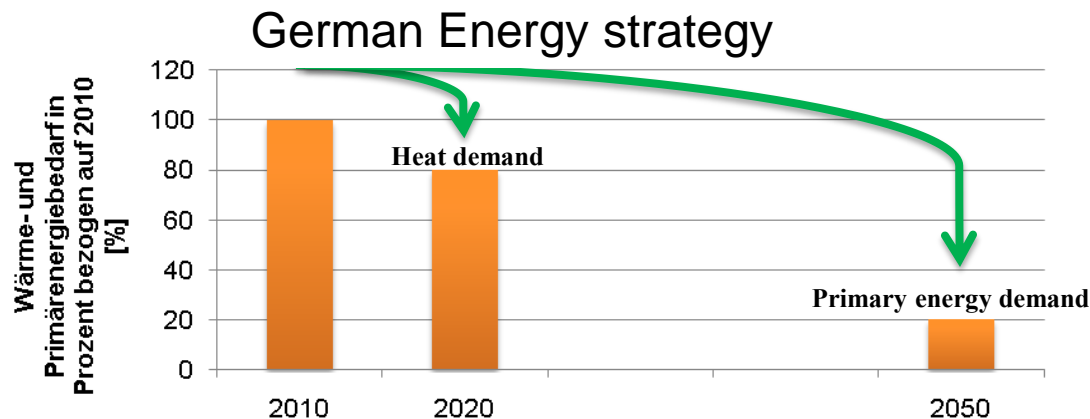
## The Federal Government has announced ambitious targets.

- By 2050, German buildings should be responsible for almost zero greenhouse gas emissions



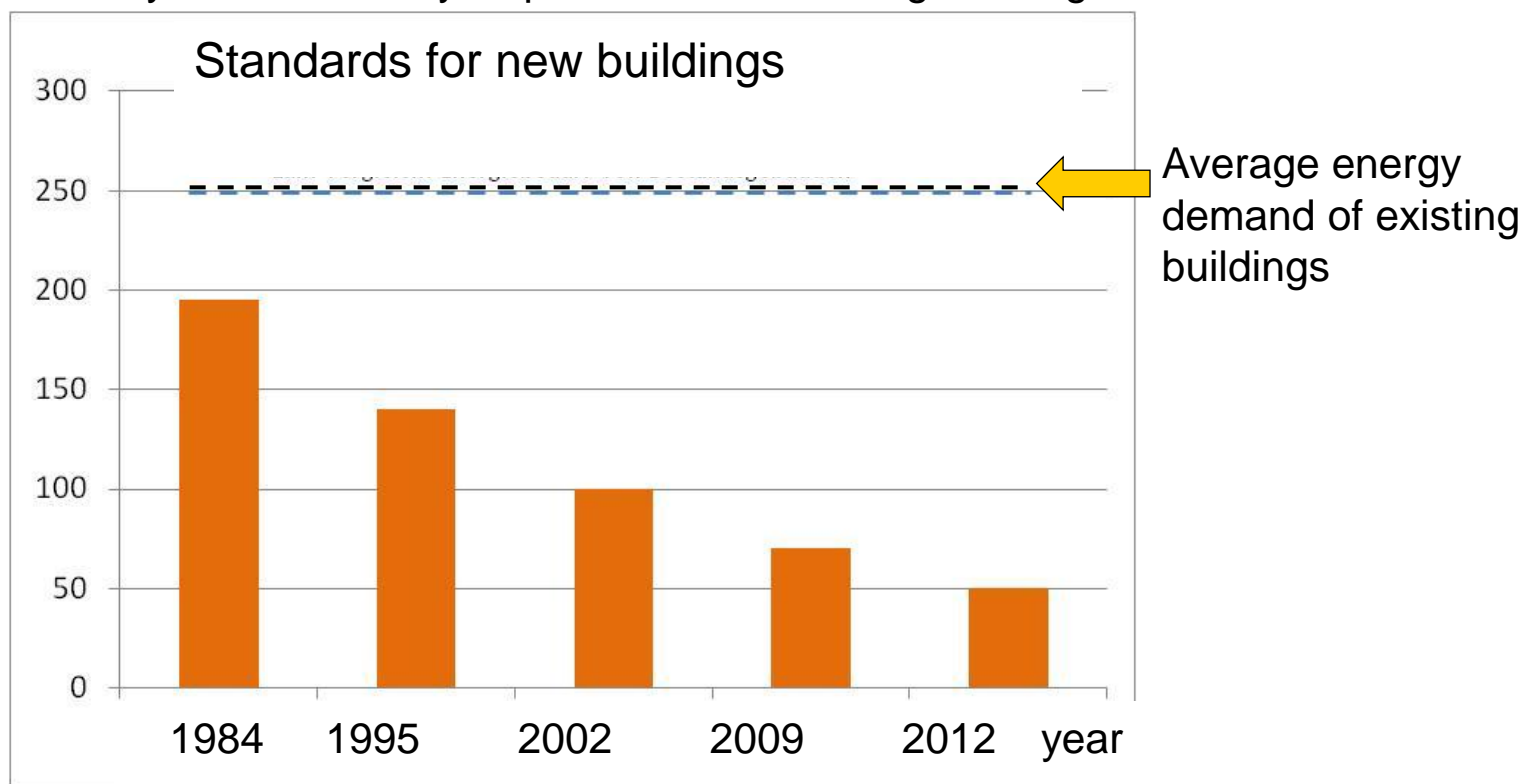
## The energy strategy of the German Federal Government (for the building sector)

- The existing building stock should be nearly climate neutral (by 2050)
- Heating demand should be reduced by 20% by 2020
- The primary energy demand should be reduced by 80% by 2050
- Doubling the rate of refurbishments from currently 1% to 2%
- Increasing the share of renewable energies (heating demand) significantly
- Development of a refurbishment-road map (2020-2050)



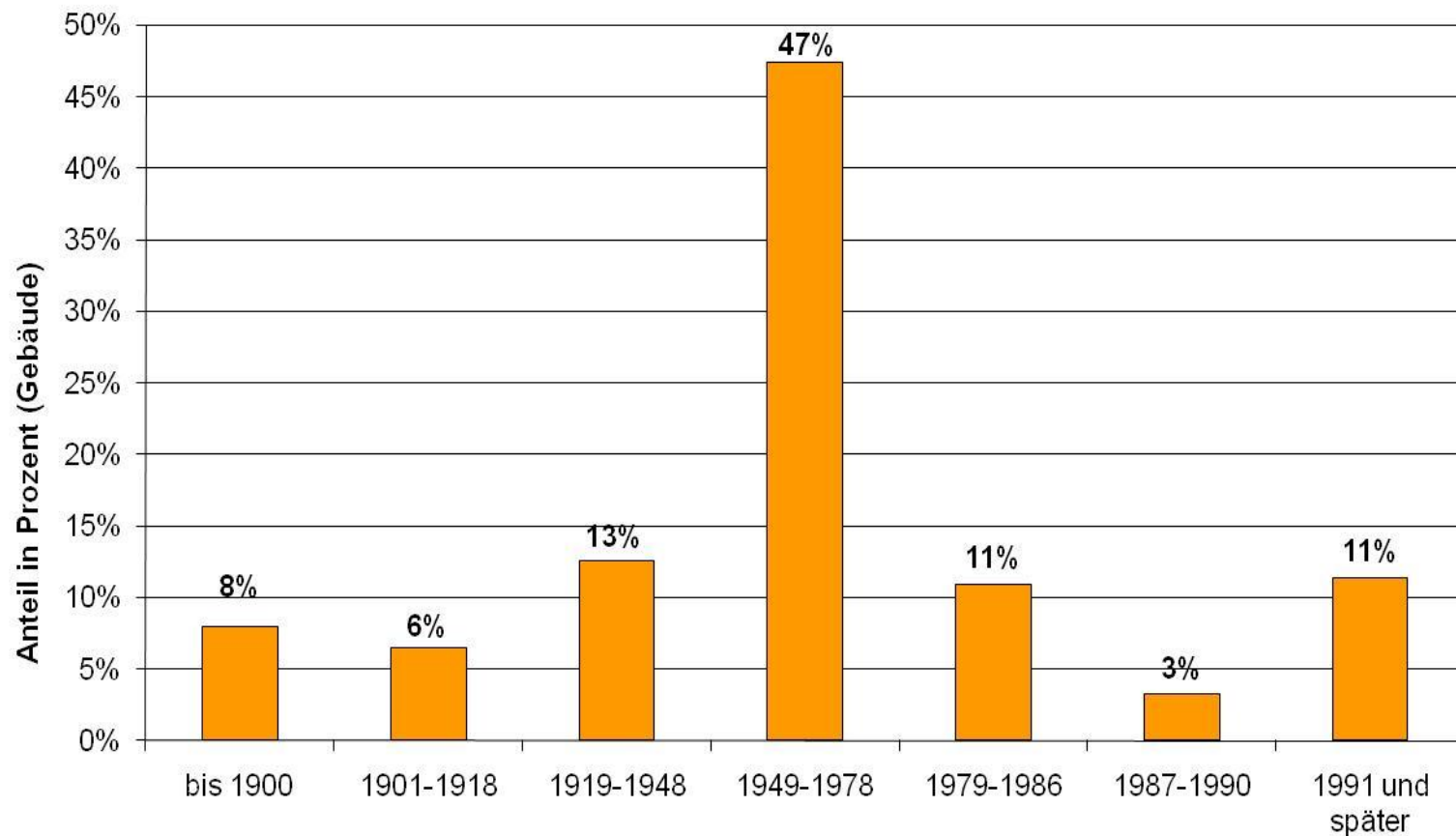
## Legal requirements at the national level.

- What has been put in place already?
  - mandatory requirements for all new buildings
  - Very few mandatory requirements for existing buildings



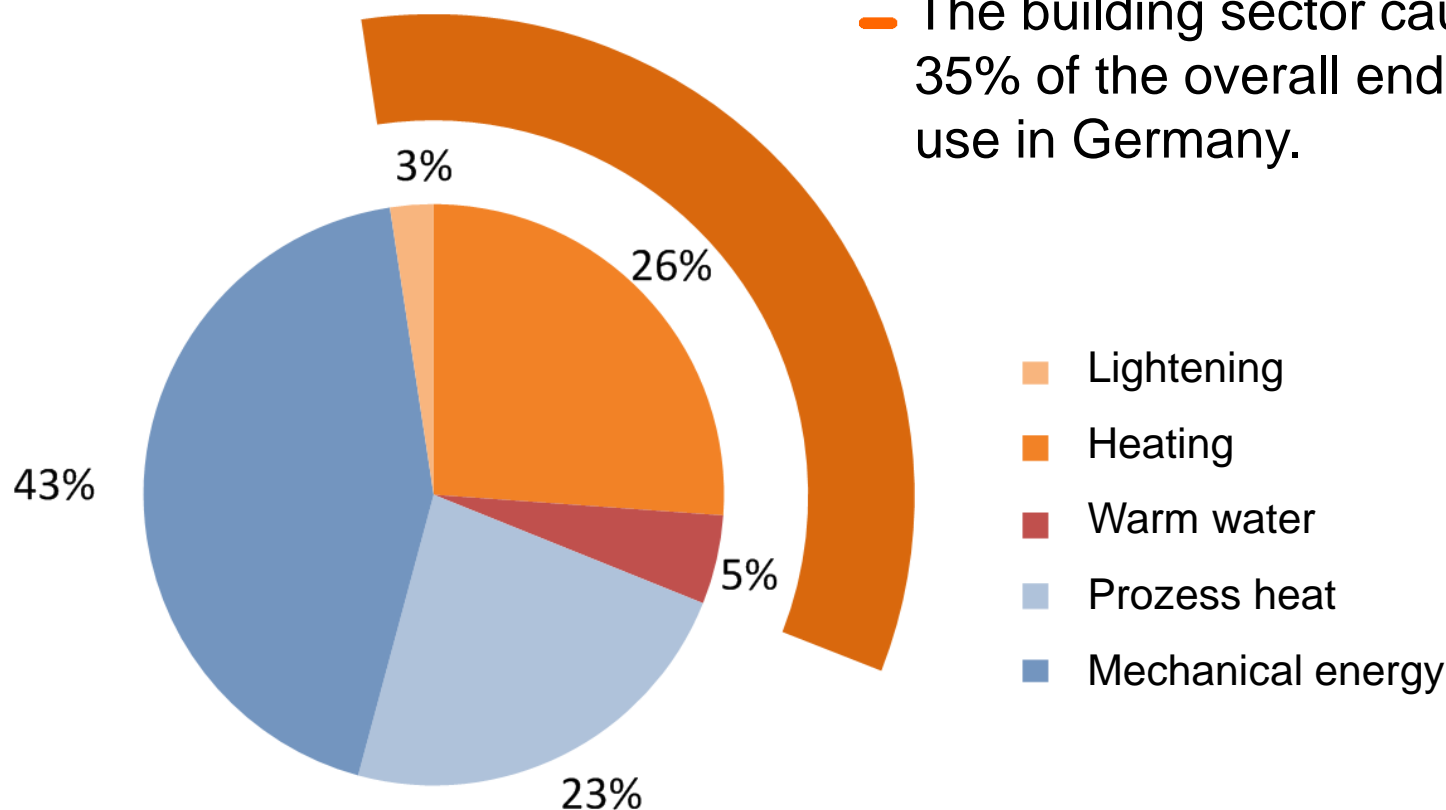
# Dena's Activities to Strengthen the Market.

## Existing Buildings in Germany – Age Groups.



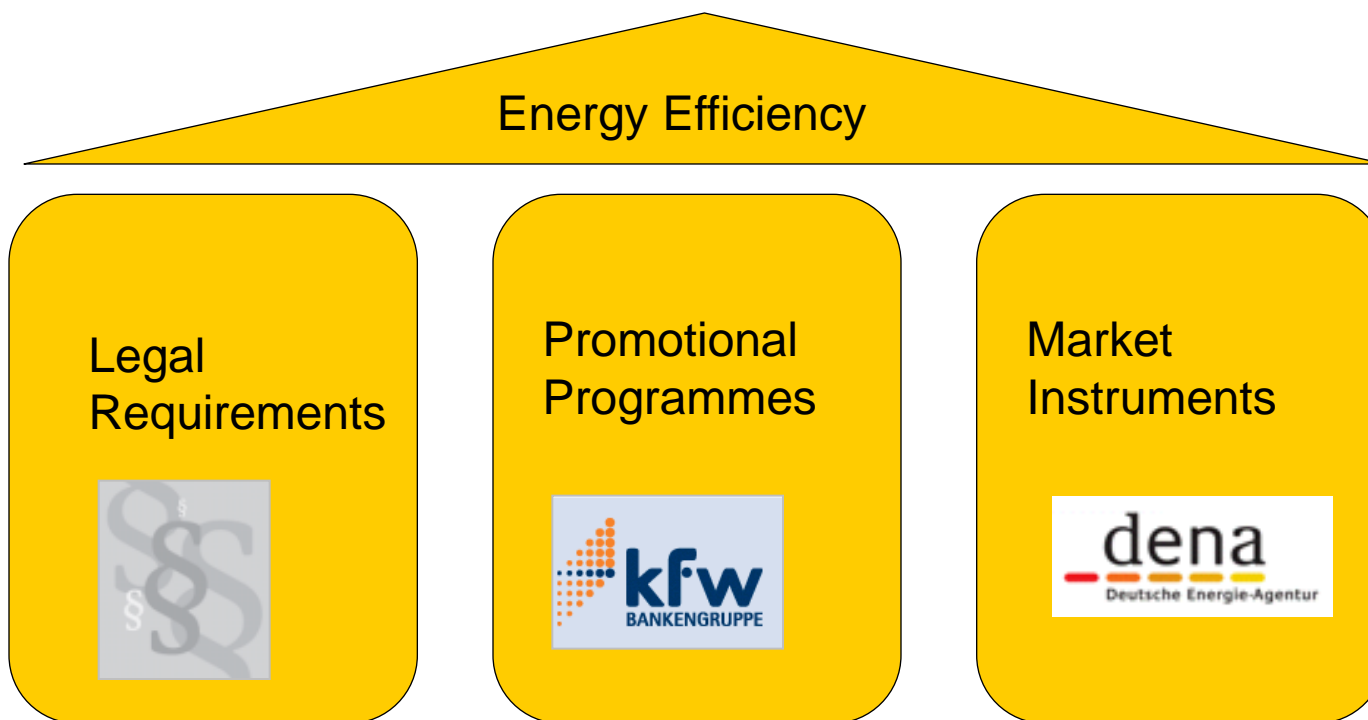
Source: Federal Ministry of Transport, Building and Urban Affairs , 2005

## End Energy Use in Germany – the Building Sector Plays a Key Role.



— The building sector causes appr. 35% of the overall end energy use in Germany.

## Political Instruments for Energy Efficiency in the Building Sector.



dena's activities are closely linked to all three areas of activity.

## How to Overcome Existing Barriers in the Building Sector.

Dena has identified six main reasons for not realising refurbishment measures in existing buildings:

1. Lack of market **transparency**
  2. Building owner: Lack of **actual information**
  3. **Complexity** of the refurbishment process and **lack of reliable results**
  4. Lack of **trust** between involved parties/experts
  5. Experts: Lack of **qualification**
  6. **Difficulty in financing** the refurbishment measures (Owner)
- **dena's activities tackle all areas to overcome existing barriers**

Required instruments to overcome existing barriers in the German market.

## Market instruments

Information campaigns & best practice

Innovations (technology and service)

Expertise

Quality assurance

Information exchange between involved stakeholders

Labelling (standards, EPC)

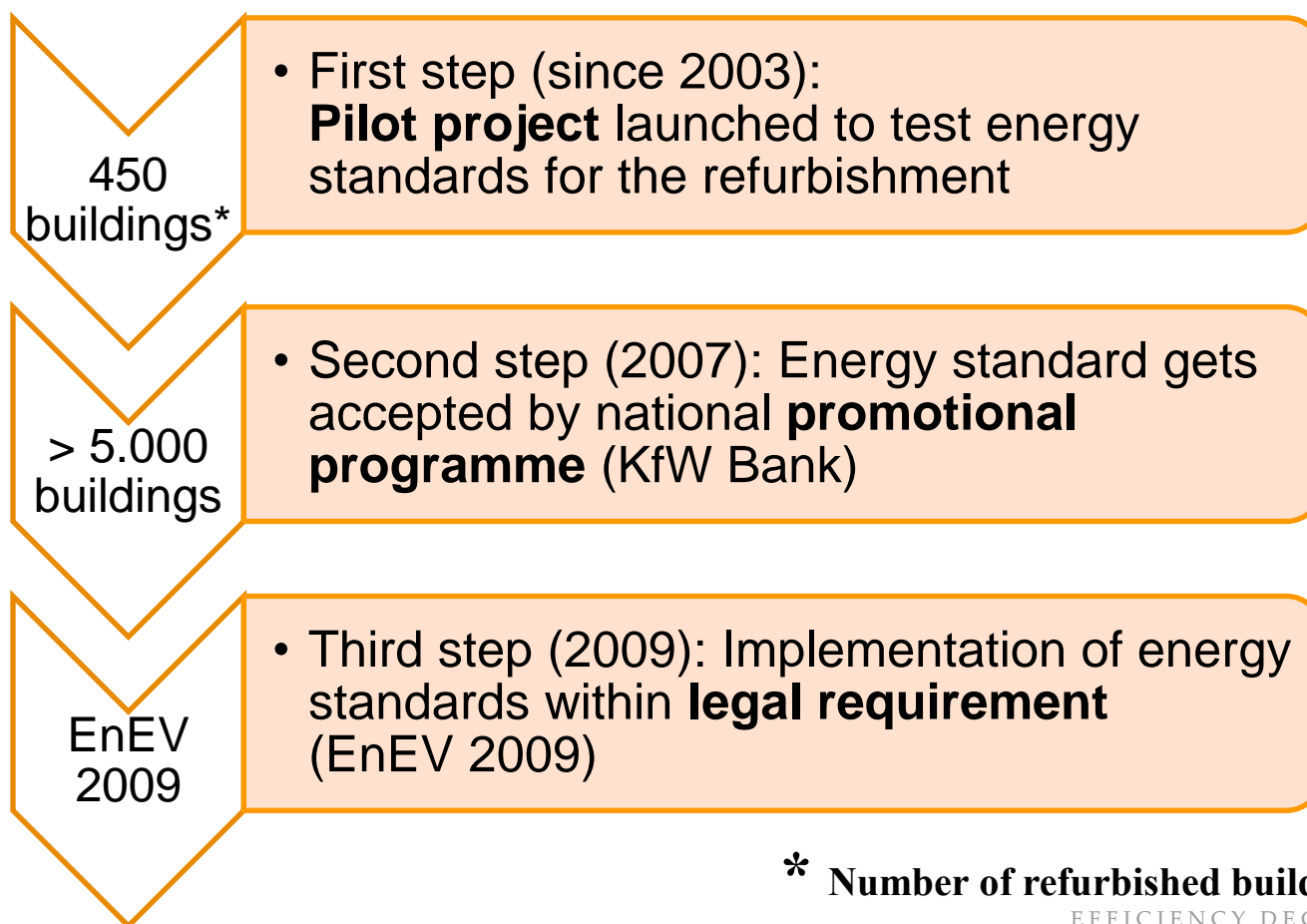
## Creating examples of Best Practice: dena's „Efficient Homes“ Project (since 2003).

Aims of the Project „Efficient Homes“:

- Realization and promoting of **best-practice projects**.
- Developing and testing **quality standards**.
- Generating long-lasting **regional multiplier effects** by **creating competence networks**.
- More than **450 buildings** (residential and non-residential) have been refurbished.
- **Building owners and experts use our best practice data base as a role model for their own projects.**



## dena's „Efficient Homes“ Project – a success story. From Pilot Project to Legal Requirement.



\* Number of refurbished buildings 2003-2011

# dena-platform: best practise data base „energy efficient buildings“

- [www.zukunft-haus.info/effizienzhaus](http://www.zukunft-haus.info/effizienzhaus): more than 1.200 buildings

**zukunft haus**  
Energie sparen. Wert gewinnen.

**dena**  
Deutsche Energie-Agentur

**Effizienzhaus. Besser planen, bauen und sanieren.**

Login: Benutzername    Suchbegriff

Gütesiegel Effizienzhaus **Effizienzhäuser** Experten Aktionen

**Die Effizienzhaus-Datenbank.**

Wo stehen die energetisch besten Gebäude Deutschlands? Schauen Sie selbst und lassen Sie sich inspirieren: Unsere Datenbank enthält Ihnen schöne Beispiele.

- Effizienzhäuser anschauen
- Effizienzhäuser eintragen
- Informationen zur Effizienzhaus-Datenbank

Projektpartner:

**IWO** Institut für wirtschaftliche Ökobilanzung e.V. **VIMMANN** climate of innovation

**„Deutschlands schönste Effizienzhäuser: Energie aus Holz – Erde – Sonne“**

Hausbesitzer bewerben sich für Preise im Wert von 12.000 Euro. Wer abstimmt kann auch gewinnen: Unter allen Teilnehmern verlosen wir einen iPod.

Stimmen Sie mit ab

**Effizienzhäuser, die Sonnenwärme nutzen**

Thermische Solaranlagen nutzen Sonnenwärme für die Erwärmung von Wasser und zur Heizungsunterstützung.

Sehen Sie hier unsere schönsten Beispiele



**look at Efficient Houses**

# dena-platform: experts for „energy efficient buildings“

- [www.zukunft-haus.info/effizienzhaus](http://www.zukunft-haus.info/effizienzhaus): more than 10.000 experts

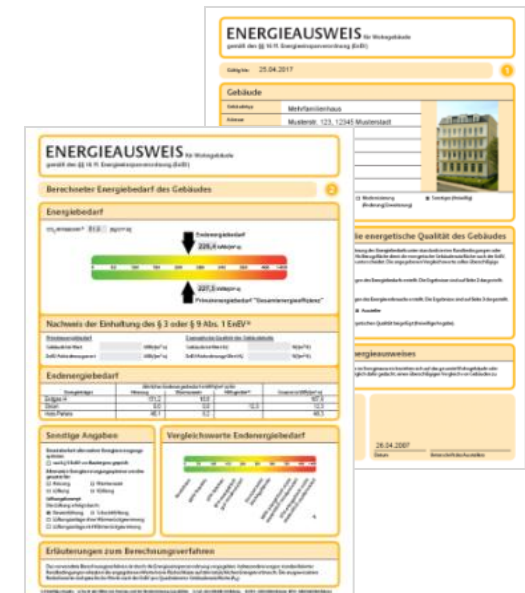
The screenshot shows the dena website interface. At the top left, there is a 'zukunft haus' logo with the tagline 'Energie sparen. Wert gewinnen.' Below it, the text reads 'Effizienzhaus. Besser planen, bauen und sanieren.' To the right, there is a graphic with the heading 'Aufgaben:' and a list of tasks: 'erneuerbare Energien', 'Wärmedämmung', and 'Lüftungsanlage'. The dena logo is in the top right corner. Below the main content, there is a navigation menu with 'Gütesiegel Effizienzhaus', 'Effizienzhäuser', 'Experten', and 'Aktionen'. The 'Experten' tab is highlighted. A large image of a worker on a solar panel is featured on the left. On the right, there is a section titled 'Rund um die Experten' with a yellow arrow pointing to it from the text 'look at Energy Experts'. Below this section, there are three bullet points: 'Experten finden', 'Für Experten: Profil anlegen und bearbeiten', and 'Informationen zur Expertendatenbank'. At the bottom, there are two small article teasers: '„Auf dem Weg zum EffizienzhausPlus“' and 'Energieberater für Effizienzhäuser'.



look at Energy Experts

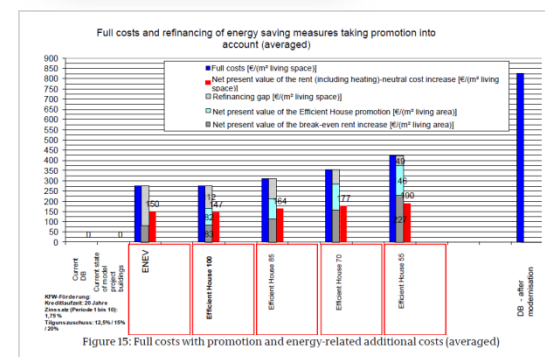
# Transparency Instruments - Energy Performance Certificates in Germany.

- dena prepared the ground for introducing mandatory certificates in 2004
  - Development of prototype certificate
  - field test
  - Information campaign
- dena has been running an information campaign to inform all involved parties since 2004
- dena introduced a voluntary seal of quality for energy performance certificates to strengthen the impact and credibility of the market instrument



# dena renovation study. Part 1: Economic viability of energetic modernisation of the rental housing stock.

- Evaluation of the dena model project „Low energy standards for existing buildings“
  - Accounting the energy savings and the dedicated investment costs
  - Checking the different efficiency housing standards
  - Without increases in energy costs and sponsorship
- Investigation of:
  - Buildings in high need of renovation
  - Average consumption: 225 kWh/m<sup>2</sup>a living space (heating, warm water)
  - Corresponds to approximately 10-15% of the rental housing stock
- The **abstract** of the report is also **available in English** on [www.zukunft-haus.info/sanierungsstudie](http://www.zukunft-haus.info/sanierungsstudie)



## Label „Efficient Home“ – A reliable (and visible) brand for energy efficient buildings .



- Legal Requirements: EnEV 2009



- National Promotional Programmes: KfW



- Market Instruments: dena's Seal of Quality for energy certificates



### New Label complies with

- Standards of national promotional programmes (KfW)
- legal requirements (EnEV 2009)

### In addition:

- proof of quality via an energy certificate with the Seal of Quality

## Dena's label for energy efficient buildings.

For the first time:

- Introduction of a broadly based quality standard for energy efficient residential buildings in Germany (new and existing buildings)

**The label :**

- **contributes to visibility of energy efficiency in the building sector**
- **Is a tool for landlords/homeowners (sales pitch)**
- displays best practice and can stimulate the (refurbishment) market





Efficiency – our focus.  
Thank you.

[www.dena.de](http://www.dena.de)