

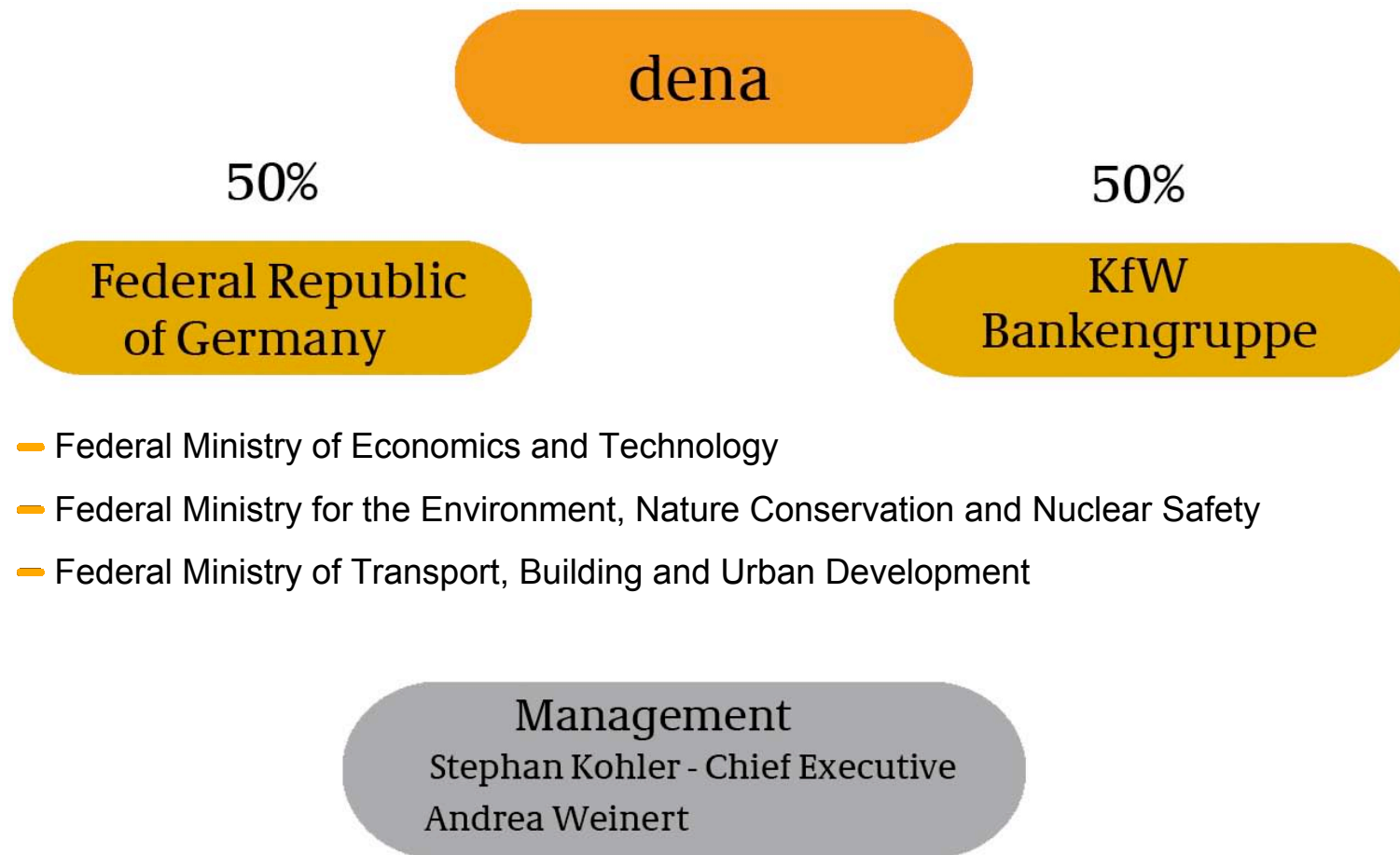
Felicitas Kraus, German Energy Agency

GreenBuilding –

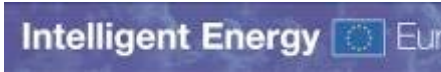
Europe-wide Renovations of Non-residential Buildings.

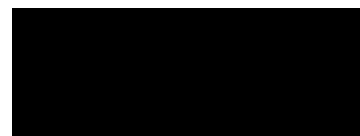
La Colle sur Loup, 7 June 2007

Ownership Structure of the German Energy Agency.



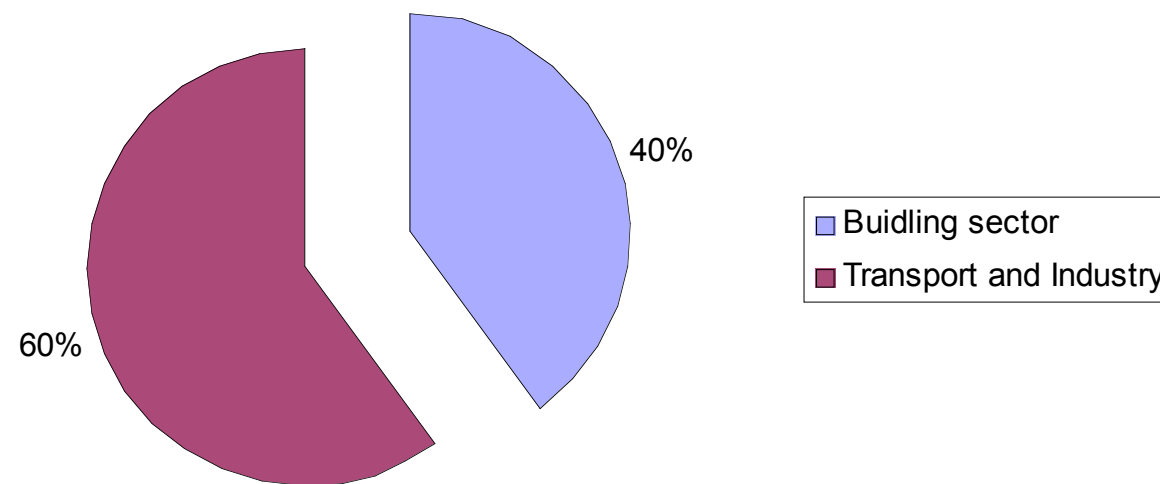
Project Summary.

- 2-year pilot phase (2005-2006) of the European GreenBuilding Programme
- supported by the European Commission's 
- trigger investments in energy efficiency of non-residential buildings
- Consortium: 13 organisations from 10 EU member states



Background.

- The buildings sector causes almost 40% of the European end energy consumption.



- 30 % of this can be attributed to non-residential buildings.
- Economic energy saving potentials are up to 30%.

Objectives and main steps.

Objectives

- establishment of **markets for energy efficiency**.
- realisation of **economically viable investments** in energy efficiency

Main Steps

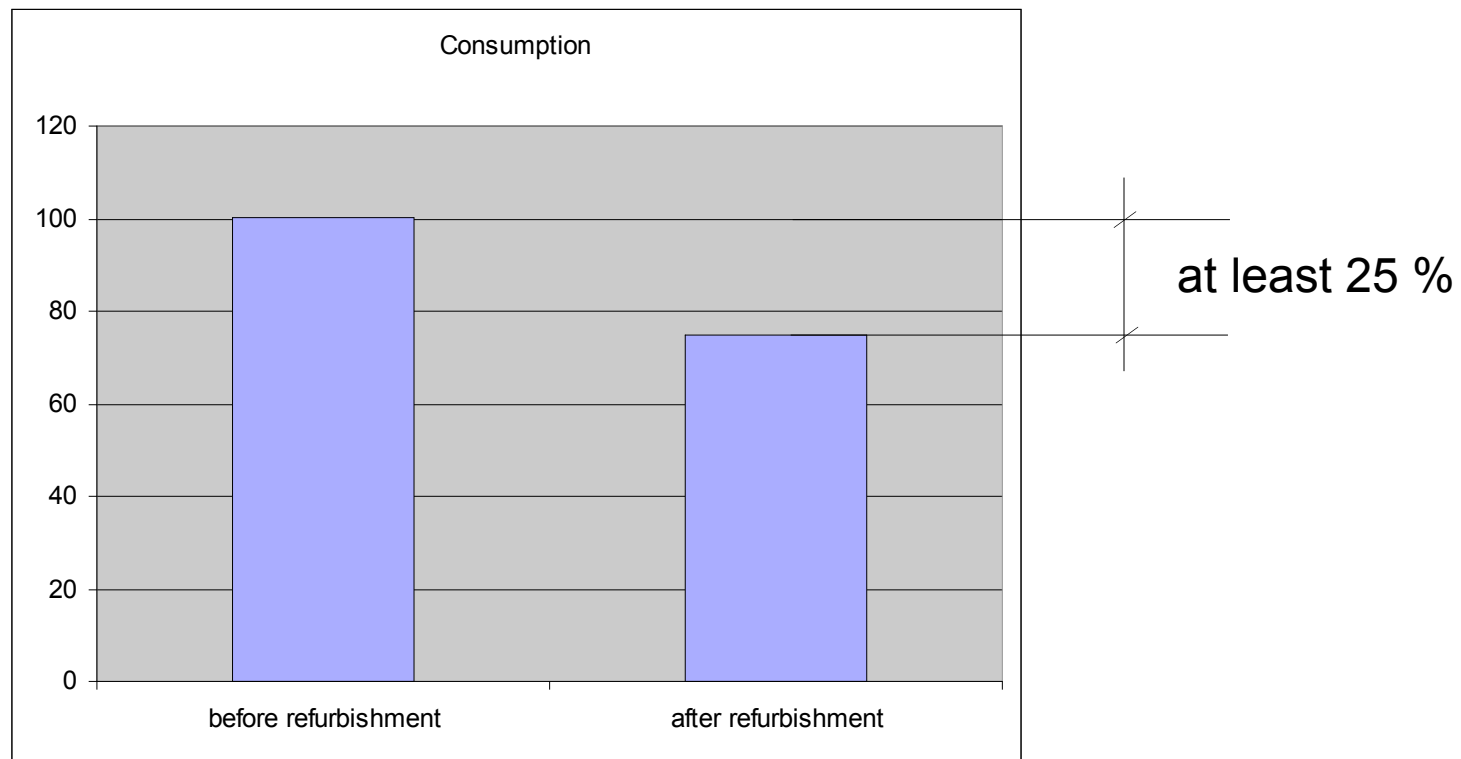
- **Awarding GreenBuilding Partner** and **Endorser** status
- Dissemination of **achieved energy savings**
- Evaluation of the savings and measures to find **benchmarks**



GreenBuilding
pilot phase.



Which Owner may become GreenBuilding Partner?



- for existing buildings at least 25 % less consumption
- for new buildings at least 25 % below national requirements

How to become GreenBuilding Partner.

- energy audit of the building; collection of the relevant data
- action plan for the modernisation of the building
- Reporting about success of the measures.
- Participation is free of cost.

1 Anmeldung für den GreenBuilding-Partner

Anmeldung und Selbstverpflichtungserklärung zur Erlangung des Status eines GreenBuilding-Partners

Die Organisation / Firma / Institution / Behörde¹¹
.....
HUK-COBURG

erklärt ihre Bereitschaft, am GreenBuilding-Programm teilzunehmen und verpflichtet sich, die Tätigkeiten, die im angelegten Maßnahmenplan aufgeführt sind, durchzuführen und die allgemeinen Grundregeln, die im Partner-Leitfaden GreenBuilding beschrieben sind, einzuhalten.

Die Organisation wird über die Durchführung der im Maßnahmenplan beschriebenen Aktivitäten schriftlich Bericht erstatten.

In der Organisation zuständig für GreenBuilding:

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Für die Organisation zeichnungsberechtigt:

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Email/ Internet: erich.haas@huk-coburg.de
Unterschrift: 
Datum:

Anlagen: ☒ Bestandsaufnahme (Bericht Audit)
☒ Maßnahmenplan

Bitte senden sie je eine unterschriebene Teilnahmeerklärung an:

Deutsche Energie-Agentur GreenBuilding Chausseestraße 128a 10115 Berlin	Paolo Bertoldi European Commission, JRC TP 450 I-21020 Ispra (VA)
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¹¹ In Falle einer gebäudebezogenen GreenBuilding-Partnerschaft ist das betreffende Gebäude mit Anschrift zu benennen.

Public relations

- publishing GreenBuilding Partners and Endorsers together with their respective projects on the **internet**
- Presentation of the projects in the **Best-Practice Inventory**
- Publication of the projects in **brochures** (English and national versions)
- **GreenBuilding signet** awarded through the European Commission as a visible sign for enhanced energy efficiency

International GreenBuilding Brochure.

- New GreenBuilding brochure
- Information about and presentation of
 - GreenBuilding Programme
 - GreenBuilding Partners
 - GreenBuilding Endorsers
 - National Contact Points
- Downloadable at
www.eu-greenbuilding.org



GreenBuilding Partner - City of Nuremberg.

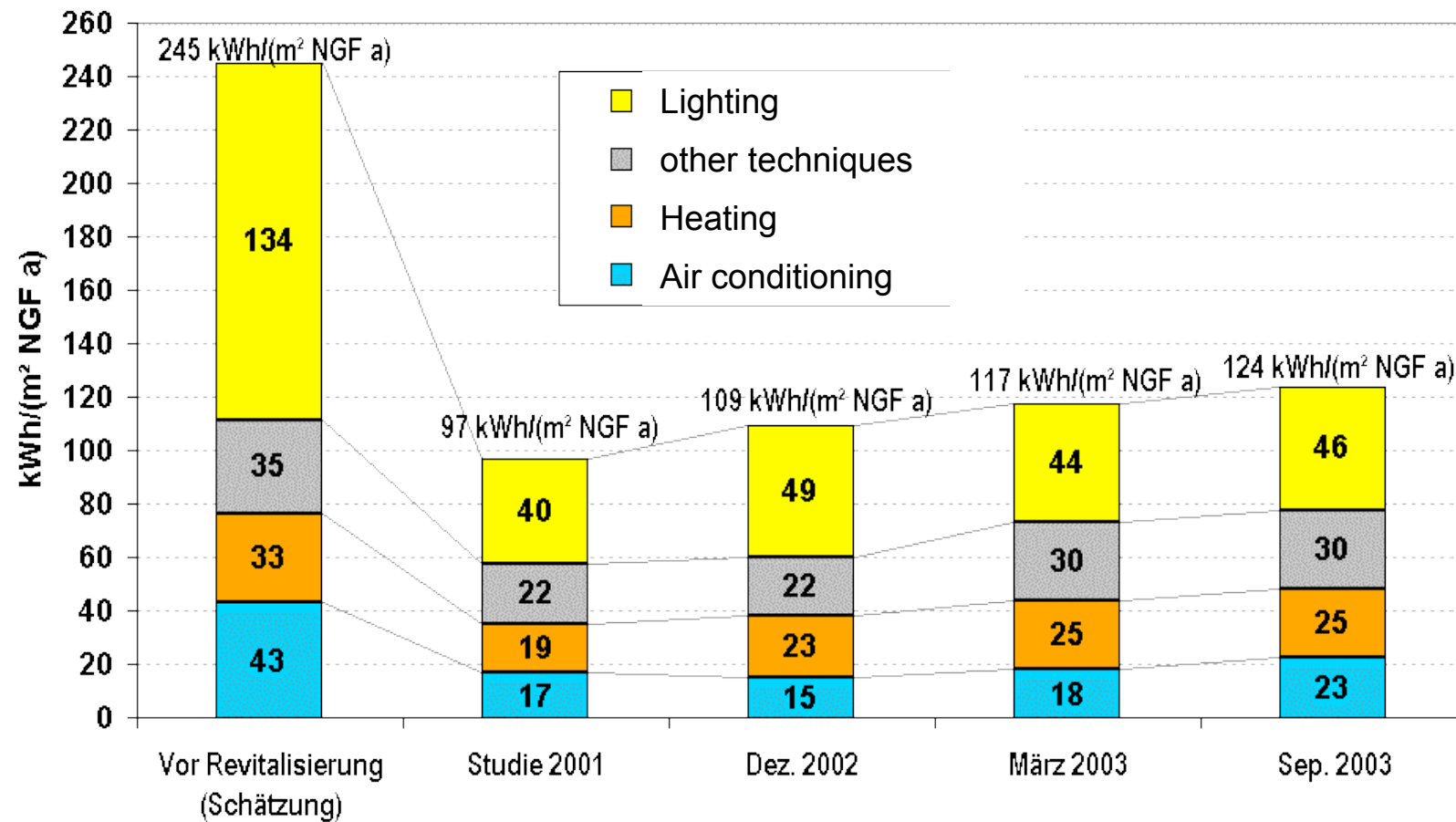
- Day-care centre Philipp-Körber-Weg 2
- Refurbishment of a former administration and cantina building of the Nuremberg
- measures (2004):
building envelope, heating and lighting
- Primary heating energy **consumption** - 80%
- Primary **energy demand** after refurbishment:
32% below requirements German energy
savings ordinance **for new buildings** (EnEV)



GreenBuilding-Partner KfW: Revitalisierung KfW Haupthaus.



GreenBuilding-Partner KfW: Final Energy Demand in Process.





GreenBuilding Partner – KfW-Bankengruppe.

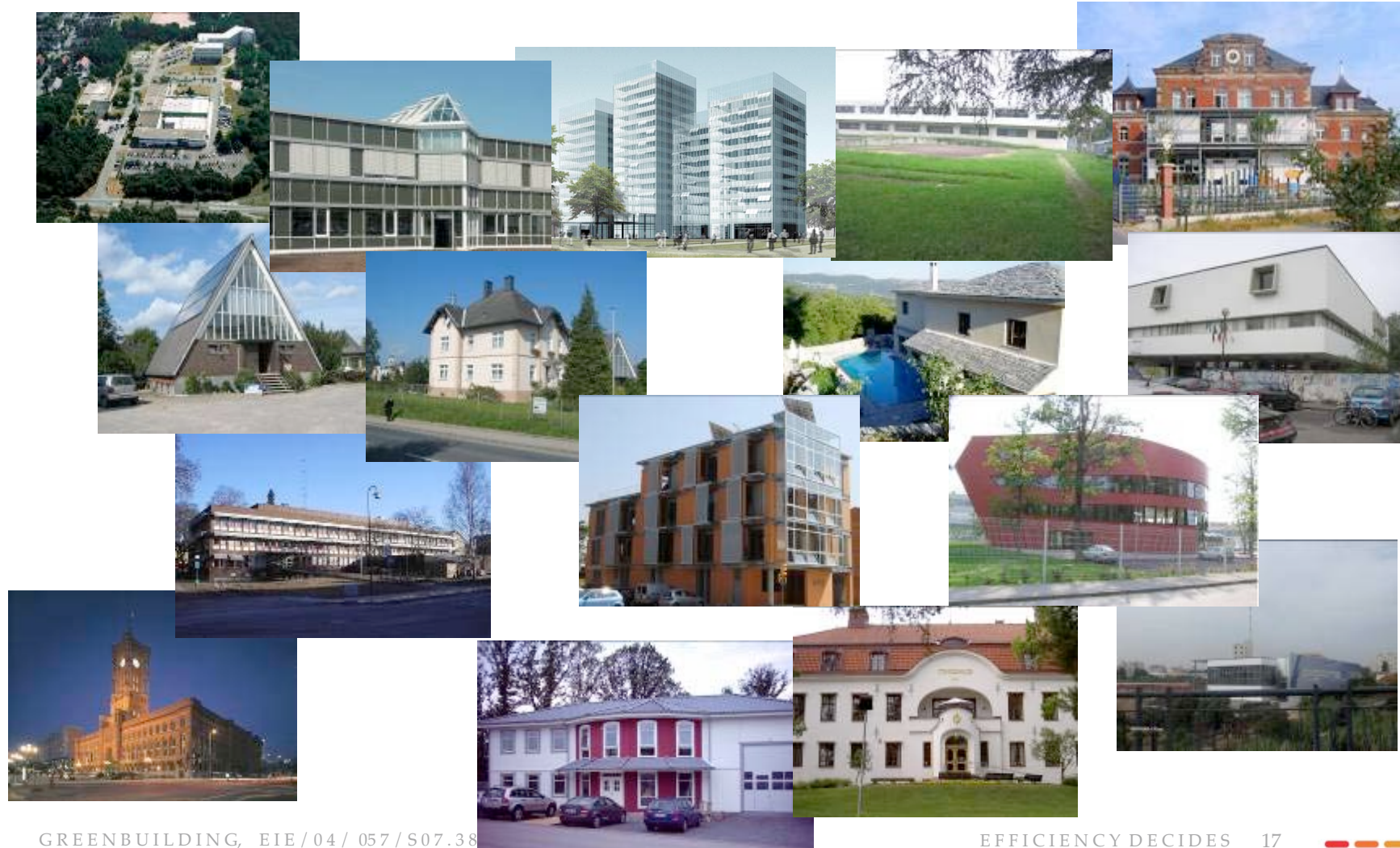
- Modernisation of the “KfW-Haupthaus”
- The office building was constructed in 1968
- September 2006 completion of renovation measures
 - ventilation
 - heating and cooling
 - lighting and
 - the building envelope
- Primary energy demand after refurbishment 130 kWh/m²a
Reduction of 46%
- 35% better than a new building



52 European GreenBuilding Partners (selection).



European GreenBuilding Projects (selection).



29 European GreenBuilding Endorsers (selection).



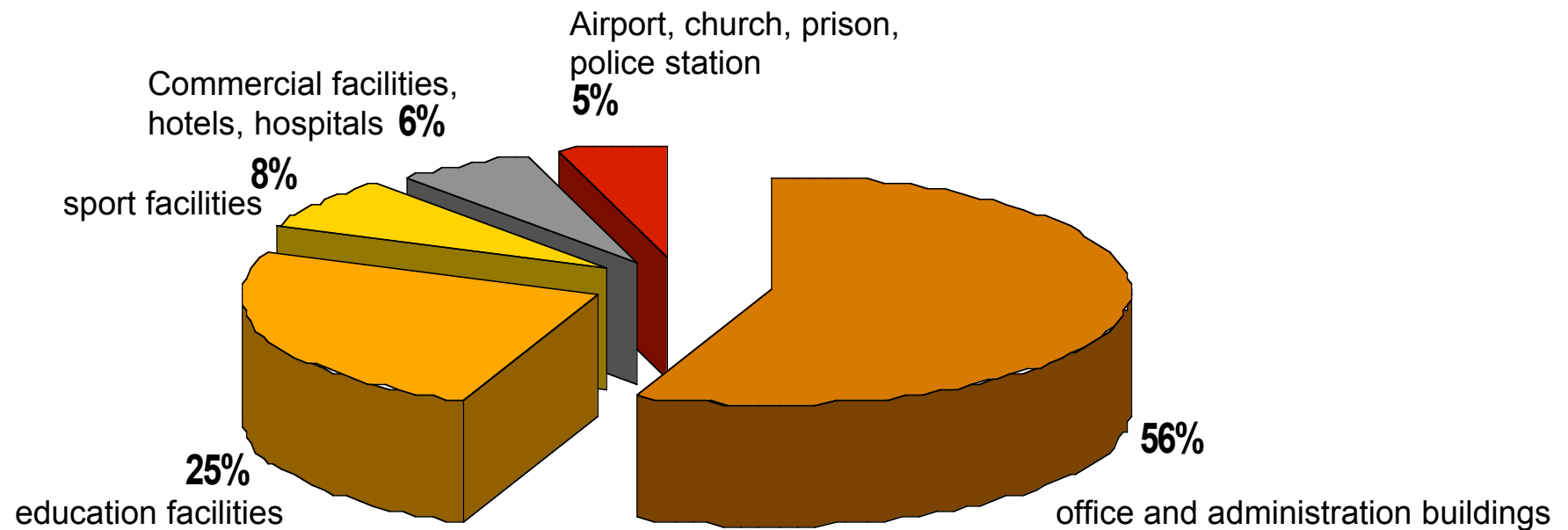
Experiences with GreenBuilding

Added value by GreenBuilding as seen by participants

- Encouragement to address energy efficiency measures
- Additional aspect in decision-making process
- Element in PR strategies
- Marketing support
- Instrument of staff motivation
- European context

Participating Buildings.

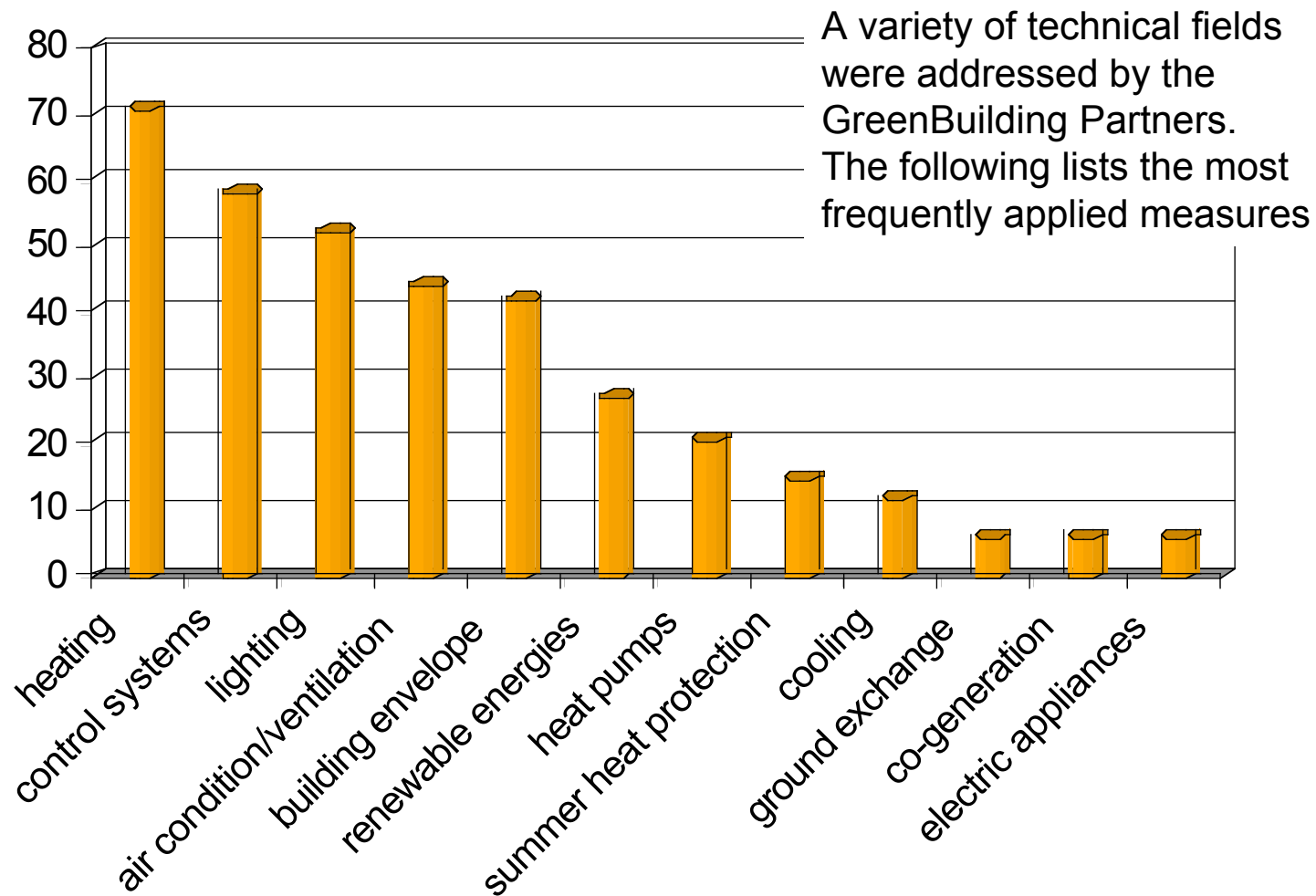
broad variety of different types of non-residential buildings.



Participating Buildings.

- The majority of the buildings belong to
 - 65 % private institutions
 - 35 % public bodies
- 73% modernisations of existing buildings
- 27% new buildings

Measures applied.



Savings achieved.

52 GreenBuilding Partners (February 2007) each year

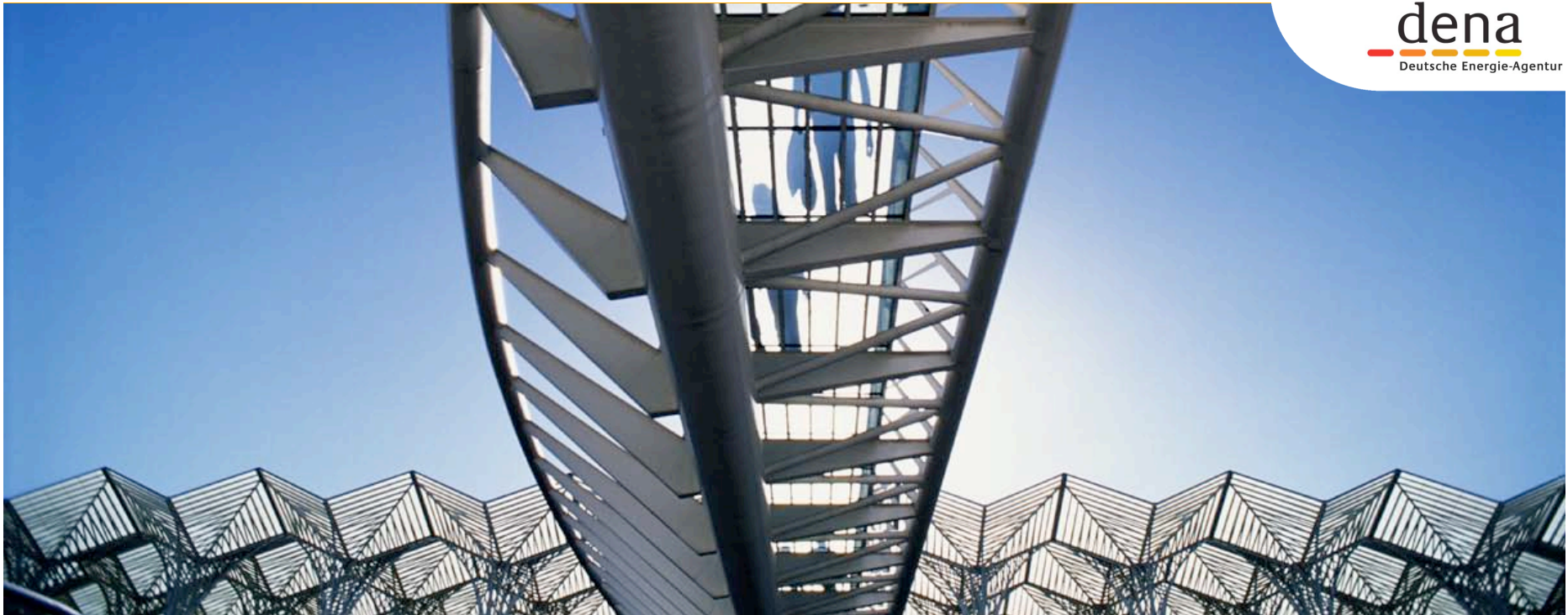
- ~ 90.000 MWh primary energy savings
- ~ 22.000 tons of CO₂ emissions

Assuming a lifetime of 20 years, these savings will accumulate to

- ~1.8 TWh primary energy and
 - ~435.000 tons of CO₂.
-
- Average primary energy savings of 33% through GreenBuilding
 - Number of GreenBuilding Partners is continuously growing

GreenBuilding – Pilot Phase (Conclusion)

- initiation of **energy efficiency actions**, supporting the realisation and creating publicity
- **market oriented action** supporting the existing framework of regulatory and grant policies
- particularly **low-cost measures** were implemented
- demonstration of **significant energy and CO₂ savings** (more energy savings than required)
- *first step to a EU-wide standard* for non-residential buildings

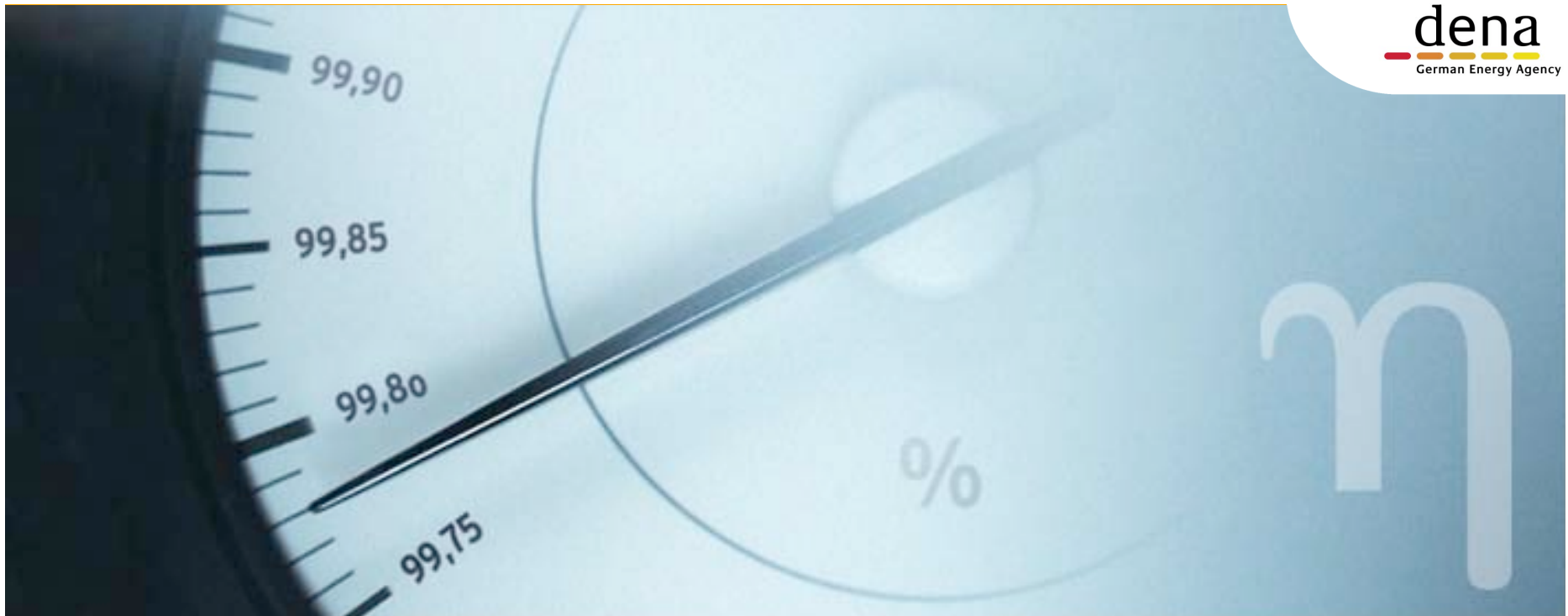


GreenBuilding plus (2nd phase 2007-2009).

Following project phase 2007 – 2009.

- The project GreenBuilding will be continued.
- supported by the European Commission's „Intelligent Energy Europe“ programme
- GreenBuilding Consortium has been extended by new Consortiums Members:
 - Energy Institute Hrvoje Pozar, EIHP (Croatia)
 - Cenergie (Belgium)
- Main objectives of the 2nd phase:
 - Dissemination and Award
 - Evaluation and Benchmarking





Efficiency decides.