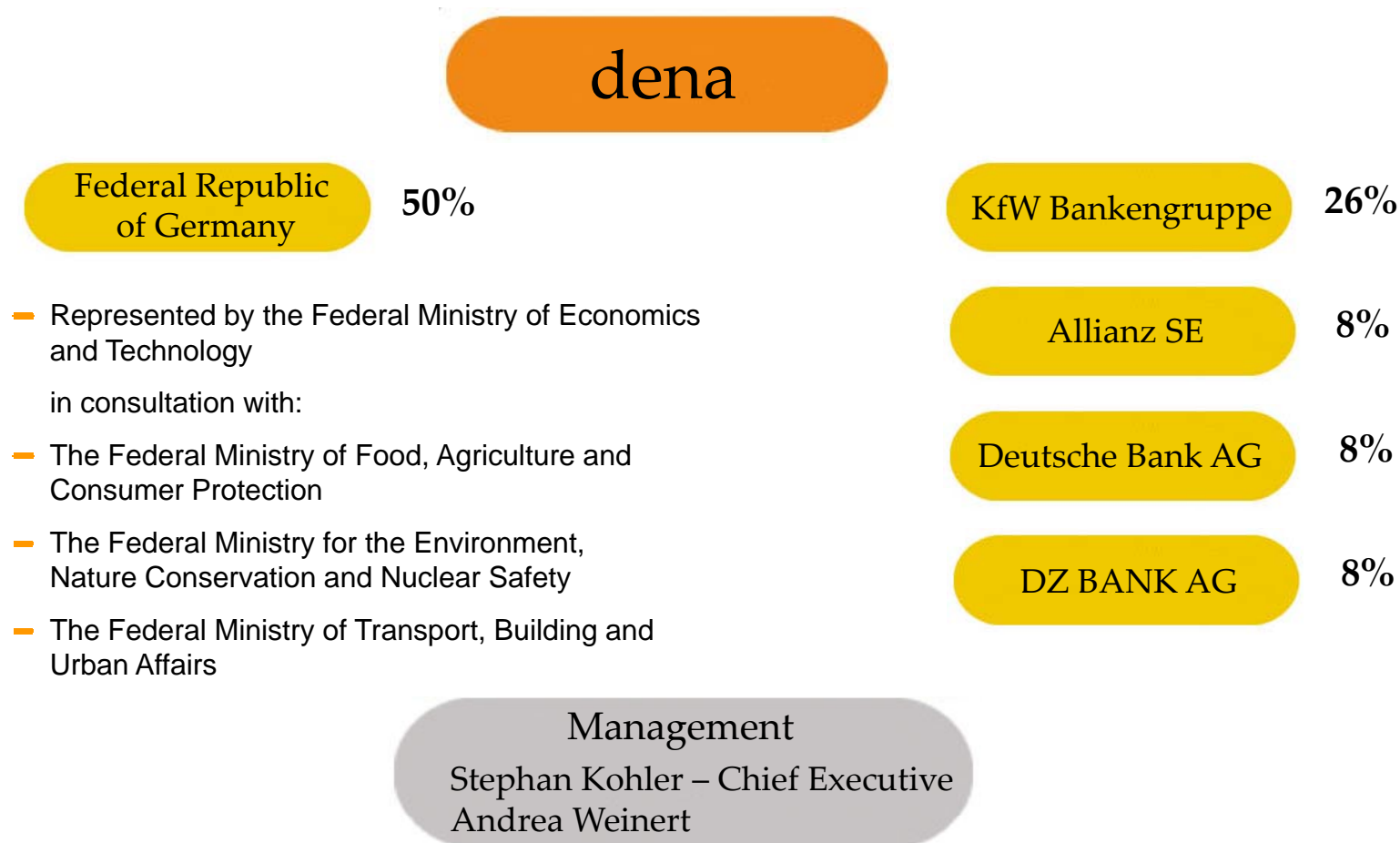


Dr. Petra Opitz

Energy Efficiency in Buildings and CDM/JI – International Activities of the German Energy Agency

BMU-NRW Side Event, Bonn 5 June 2008

Ownership Structure of the German Energy Agency.



dena's board.

Supervisory Board Chairman

- Glos, Michael, Federal Minister for Economics and Technology

Deputy Chairman of dena board

- Leinberger, Detlef, Member of the Board of Managing Directors of KfW Bankengruppe
- Dr. Duhnkrack, Thomas, Member of the Board of Managing Directors of DZ BANK AG
- Dr. von Heydebreck, Tessen, Managing Director, Deutsche Bank Stiftung
- Gabriel, Sigmar, Federal Minister for the Environment, Nature Conservation and Nuclear Safety
- Kroh, Wolfgang, Member of the Board of Managing Directors of KfW Bankengruppe
- Seehofer, Horst, Federal Minister of Food, Agriculture and Consumer Protection
- Steinmetz, Otto, Member of the Board of Managing Directors of Dresdner Bank AG
- Tiefensee Wolfgang, Federal Minister for Transport, Building and Urban Affairs

Fields of Competence and Activity at dena.



Dena's
activities in
the field of
JI/CDM



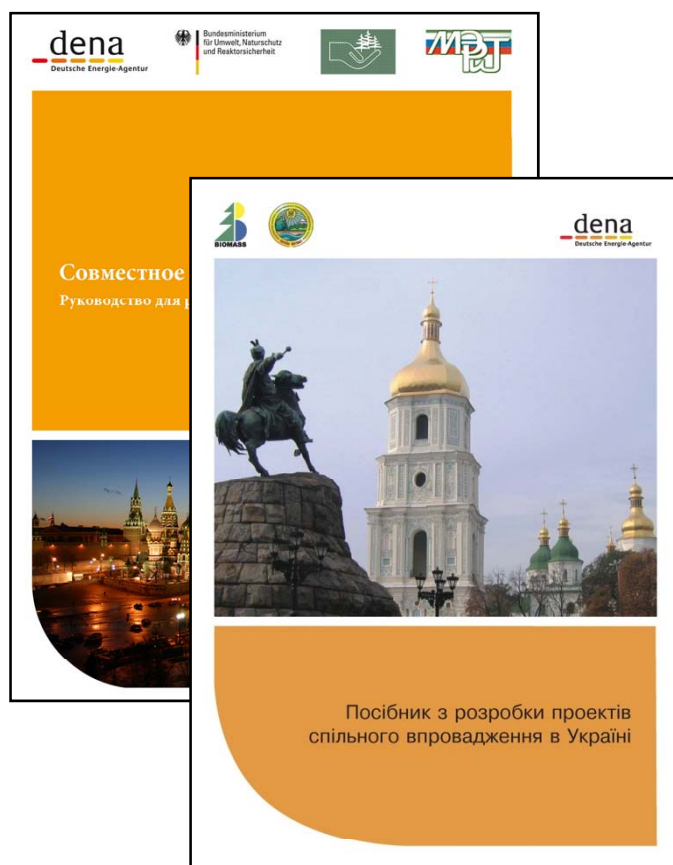
Our Objectives

- Support for energy efficiency, energy saving and renewable energy projects in transition countries
- Capacity building in the field of CDM/JI in transition countries on behalf of the German government
- Development of market supply – project portfolios
- Support for German companies under EU-ETS using the potential of CDM/JI
- Support for project owners in CDM/JI countries in project development
 - Assistance with development of project documentation and financing schemes
 - Identification of potential investors
 - Identification of project developer and provider of technical equipment

Our experiences I

- Development of several bilateral JI portfolios
 - Russia (September 2004 - April 2005)
 - Modernization of cogeneration plants
 - Modernization of industrial plants
 - Reconstruction of heat supply systems of two cities
 - Transfer of end consumers to more efficient CHP plants/district heating
 - Substitution of coal fired boilers by the use of warm water from closed mines
 - Romania (September 2005 - April 2006)
 - Rehabilitation of cogeneration and thermal power plants
 - Rehabilitation of hot water transport network
 - Wind power project
 - Ukraine (October 2005 - March 2006)
 - Construction of cogeneration plants
 - Reconstruction of thermal power plant
 - Landfill gas recovery and utilization

Our experiences II



— Elaboration of JI-Handbooks for Russian (2006) and Ukrainian companies (2007)

- The Kyoto – Protocol and the flexible mechanisms
- Principles of JI - project development in Ukraine/Russia
- JI – project types
 - Selling of certificates to foreign CO2 Investors
 - Project development by foreign CO2 Investors
- Legislation and framework conditions in Germany
- Legislation and framework conditions in Ukraine/Russia
- Database:
 - Project “Pre-Check”
 - Emission Reduction Calculation Sheet
 - PDD Format
 - Overview about important actors in the field of JI
 - Methodologies & Baselines

Our experiences III



— CTI JI/CDM-Investment Forum – CEE, Caucasus and Central Asia, 14.-16.10.2007, Leipzig

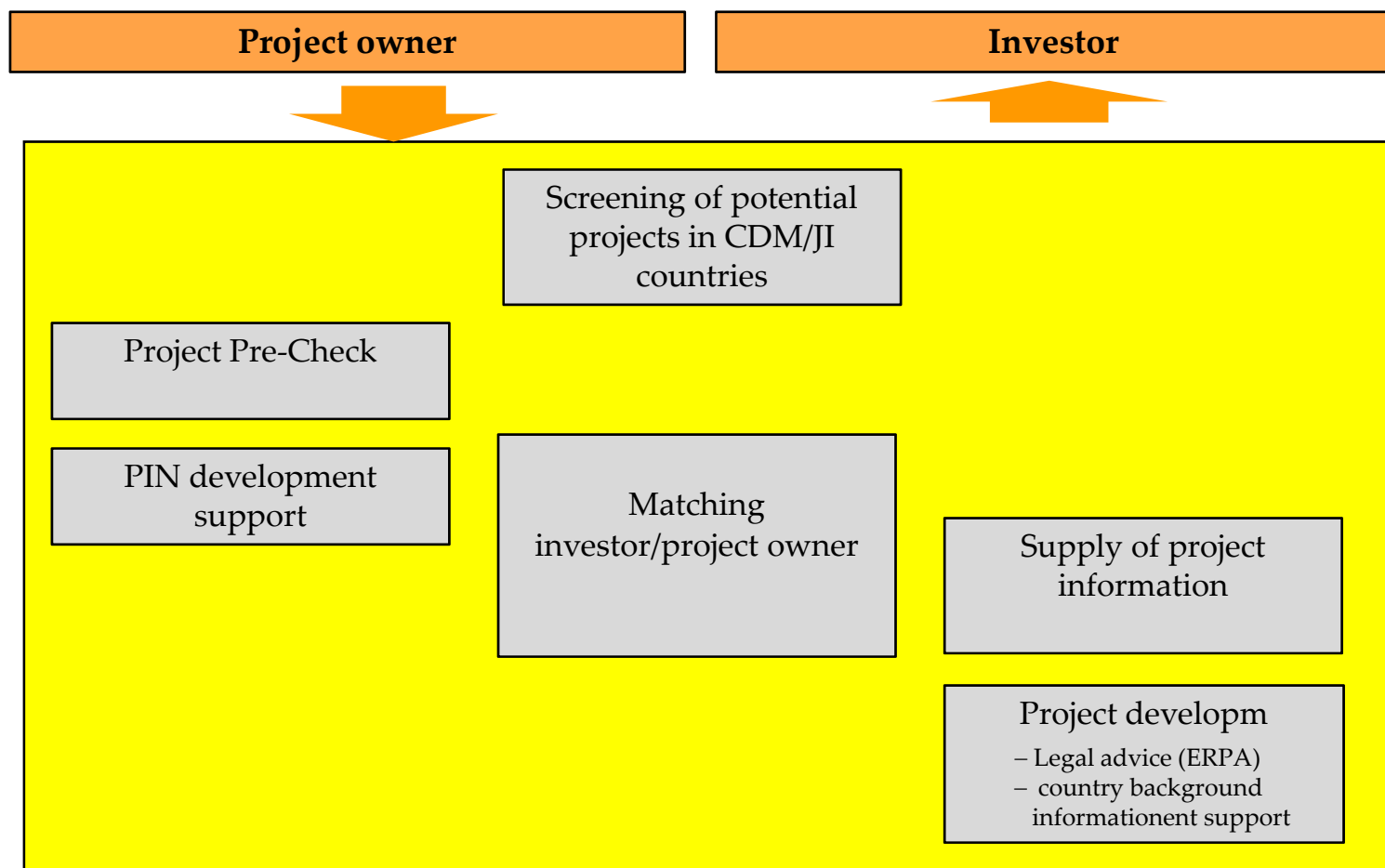
- Presentations from: Armenia, Aserbaidzhan, Belarus, Bosnia& Herzegowina, Bulgaria, Georgia, Kazakhstan, Kyrgystan, Macedonia, Moldavia, Poland, Ukraine und Uzbekistan
- Project types: associated gas, landfill gas, biogas, biomass, wind, hydropower, energy efficiency in industry etc.



— Capacity building seminar for CDM in:

- Central Asia, 13.-14.12. 2007, Almaty
- Brazil, Porto Alegre, Septembre 2007

Project matching platform for CDM & JI Projects with German participation



International dena-activities in the field of energy efficiency in buildings – P.R.China. (1)

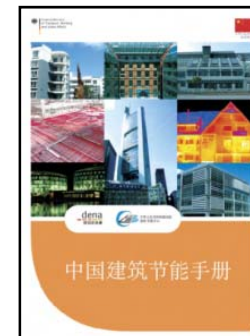
2006

- **MoU between dena and the Center of Energy Efficiency in Buildings (CEEB)** under the umbrella of the German and Chinese Ministry of Construction
- awarding the first German **Energy Certificate** in China for the Pujiang Office Building in Shanghai



2007

- professional „**Handbook on energy efficient building in China**“ in cooperation with CEEB and German companies
- handbook based **roadshow on „energy efficient building in the P.R. China**“ for decision makers in six chinese cities (Beijing, Shenyang, Qingdao, Shanghai, Shenzhen and Chengdu) in cooperation with CEEB and German companies



International dena-activities in the field of energy efficiency in buildings – P.R.China. (2)

2008

- **German workshop** at the Fourth International Green and Energy Efficient Building Conference and Expo in Beijing
- formation of the **German-Chinese Workgroup on Energy Efficiency in Buildings** between dena and CEEB under the umbrella of the German and Chinese Ministry of Construction to:
 - update the handbook and realize further regional workshops
 - develop pilot projects
 - advise institutions at the implementation of consumption-based heat cost billing and the certification of energy efficient buildings



International dena-activities in the field of energy efficiency in buildings – India (1).

2006

- MoU between dena and Bureau of Energy Efficiency (BEE) of the Indian Ministry of Power
 - joint development of potentials for energy efficiency in India
 - support of bilateral B2B-cooperations and know-how transfer
- initiation of the cooperation with GTZ in the field of energy efficiency in buildings



2007

- cooperation in the Indo-German Energy Forum (IGEF)
 - coordination of German activities in India

International dena-activities in the field of energy efficiency in buildings – India (2).

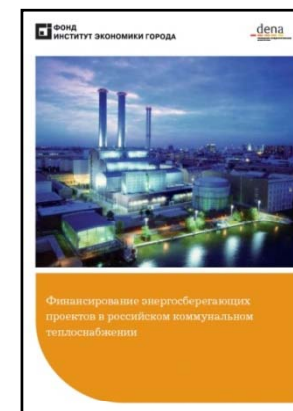
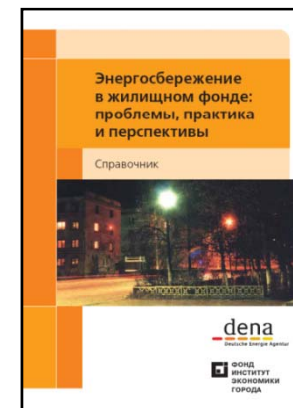
2008

- Indo-German Symposium on Energy Efficiency in Buildings in New Delhi
 - in cooperation with BEE, GTZ, KfW and Confederation of Indian Industries (CII)
- further goals of cooperation:
 - support the BEE to develop building codes, - standards and strategies for market implementation
 - develop qualifying instruments for relevant actors in the building sector
 - support B2B-cooperations (exhibitions, symposia)
 - check and arrange Indo-German pilot-projects (PPP, ESCOs/contracting)



International dena-activities in the field of energy efficiency in buildings – Russia, Ukraine.

- 2004: „Handbook on energy efficient modernization of buildings in Russia“ (2004)
- 2005: symposia on energy efficiency in buildings in Russia
- 2006: „Handbook on energy efficient modernization of buildings in the Ukraine“
- 2007: „Handbook on financing energy efficiency projects in the communal heat supply in Russia“
- **JI Check for potential pilot project in St. Petersburg (multi-storey residential building) – share of co-financing from ERUs very low (2.5%)**



Summary

Particularities:

- Huge efficiency potential in buildings (pilot project in St. Petersburg, Russia: 60%; panel flat buildings in Germany 75-80%)* to be achieved by a number of measures
- Very long pay-back periods of investment – ERUs or CERs only a small share

Approaches:

- In order to use JI/CDM in buildings it needs
 - programmatic approach for certain types of buildings (multi storey buildings of same type, etc.)
 - sectoral approach (benchmark for certain activity – heating systems, insulation etc.)
- Financing of refurbishment of buildings needs a solution – support of ESCOs – JI/CDM only add-on

* Depends on measurers and level to be achieved

Thank you.