

Cross-border cooperation & energy management

Cornelia Pankratz, Euro Info Centre
Investitionsbank Schleswig-Holstein

Wirtschaft

Immobilien

Kommunen

INTERREG III A project „EnerKo“: Development of energy management measures for SME and communities



**DIESES PROJEKT WIRD VON DER
EUROPÄISCHEN UNION KOFINANZIERT**



Agenda

- ▶ Investitionsbank Schleswig-Holstein
- ▶ Objectives and reasons for the „EnerKo“ project
- ▶ Project partners and target groups
- ▶ Project financing
- ▶ Project milestone plan
- ▶ Actions in sub-project SME
- ▶ Actions in sub-project communities
- ▶ Project example: energy measures in a community

Housing

- ✓ Social housing assistance
- ✓ Specialists in Housing
- ✓ General housing assistance
- ✓ Consulting

Business

- ✓ Funding Scout
- ✓ Business start-up information service
- ✓ Master craftsmen assistance
- ✓ Loans and grants
- ✓ Equity capital products
- ✓ Federal assistance

Municipalities

- ✓ Municipal Investment Fond
- ✓ Loans for municipalities and municipal enterprises
- ✓ Funding for urban development
- ✓ **Energy Agency Schleswig-Holstein**
- ✓ PPP Competence Center
- ✓ Project Management

Other Services

- ✓ INTERREG Programme Management
- ✓ **Euro Info Centre Kiel**
- ✓ Conveyance loans (KfW / LR)
- ✓ Global loans

► Reasons

- More than 50% of the energy in the EU is used by companies and public institutions
- Experiences of ENERVISION in Denmark and ENERGY AGENCIES in Germany show that there is high energy saving potential in communities and in craft business
- Rising energy prices burden the budget of communities and affect the competitiveness of enterprises
- Especially in Denmark legislation regarding „energy saving“ was tightened

► Objectives

- Transparency by energy controlling und energy management
- Implementation by energy consultants in **Communities** and in **SME**
- Well-founded basis for decisions in order to reduce energy costs by:
 - Saving energy
 - Using energy economically
 - Using renewable energy resources
- Development of a cross-border network
 - Experience exchange (know-how transfer)
 - Co-operation
- Elaboration of alternative financing instruments

► Project partners

- Syd Energi Net A/S
- Enervision A/S
- Syddansk Universitet
- Sønderjyllands Erhvervscenter
- Energieagentur der Investitionsbank Schleswig-Holstein
- Ministerium für Landwirtschaft, Umwelt und ländliche Räume des Landes Schleswig-Holstein
- Universität Flensburg
- Handwerkskammer Flensburg
- IHK zu Flensburg
- Städteverband Schleswig-Holstein
- Gemeindetag Schleswig-Holstein
- EnergieSystemeNord GmbH
- Stadtwerke Flensburg GmbH



► Small & medium sized enterprises

- Flensburger Brauerei GmbH & Co KG
- Danisco Deutschland GmbH, Niebüll
- Royal Frysk GmbH, Emmelsbüll-Horsbüll
- Holger Hinrichs GmbH & Co KG, Flensburg
- TRIXIE Heimtierbedarf GmbH & Co KG, Tarp
- KPE Multiplextheater GmbH & Co KG, Flensburg
- Gosch Verarbeitungsbetrieb GmbH, Ellingstedt
- Wiedemann GmbH, Husum
- Gutbier GmbH & Co KG, Husum
- Medelbyer Landbäckerei GmbH & Co KG, Medelby
- Strandhotel Wenningstedt / Sylt (Contracting – Untersuchung)

► Communities

- City of Niebüll
- Harsislee Community
- Ny Tonder Community

► Project financing

Danish side	German side
Interreg – grant 50%	Interreg – grant 50%
Syd Energi 46%	Land Schleswig-Holstein 20 %
Communities 4%	Investitionsbank 22%
	Communities 8%
Budget: 1.132.136 DK	Budget: 192.930 €

%-data rounded

► Actions in sub-project SME

- Detailed inspection of the building
- Survey regarding physical data of the building and the equipment
- Survey regarding consumption: electricity, heat, and water
- Data analysis and suggestions for restructuring – incl. cost calculation
- Preparation of reports with explanation of saving potentials
- Development and implementation of information workshops & training for project participants
- Experience exchange regarding energy efficient restructuring among communities and other participating actors

► Actions in Sub-project communities

- Selection of real estates for the survey in the participating communities
- Detailed inspection of the buildings
- Development of energy controlling (survey of consumption per month)
- Survey regarding consumption: electricity, heat, and water
- Preparation of reports with explanation of saving potentials
- Analysis of critical points and suggestions for restructuring – incl. cost calculation
- Survey regarding physical data of the building and the equipment
- Calculation of current energy consumption in the buildings in kilowatt hour (kwh) & kWh/m² per year
- Development and implementation of information workshops & training for project participants
- Benchmarking with index for comparability in order to rate and evaluate roughly the restructuring activities
- Experience exchange regarding energy efficient restructuring among communities and other participating actors

► Survey in buildings of the community „Harrislee“

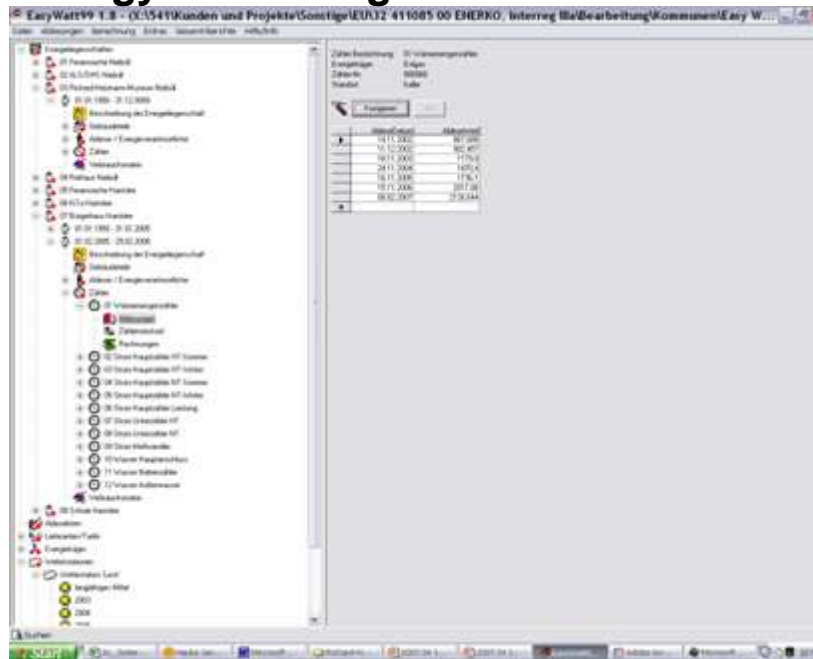
- school, swimming hall + children & youth centre
built in 1950 – 2007, fundametal reconstruction of building (facade + heating)
- Fire brigade with lounge
built in 1980, limited use
- Kinder garden
built in 2000, external use by AWO
- Town hall Harrislee (administration & events)
built in 1980, detailed survey according DIN 18599



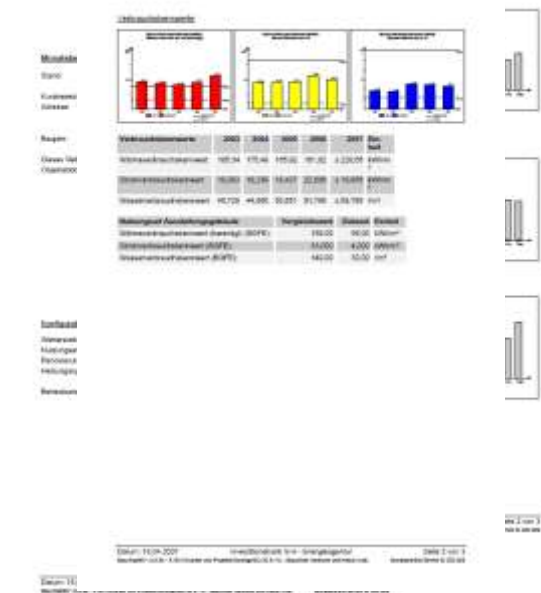
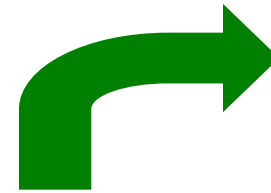
Project example: energy measures in a community

► Energy controlling

Energy controlling software



Survey list



Monthly report



► **Actions:** town-hall Harrislee

- Holistic analysis of the building according DIN 18599
- Detailed analysis of ventilation system
- Inspection of lighting concepts



► Actions

- Survey of the town hall in Harrislee according to DIN 18599

The energy agency performs in collaboration with a diploma thesis an energetic balance calculation of the town hall.

On basis of the holistic building inspection needs are detected in the categories:

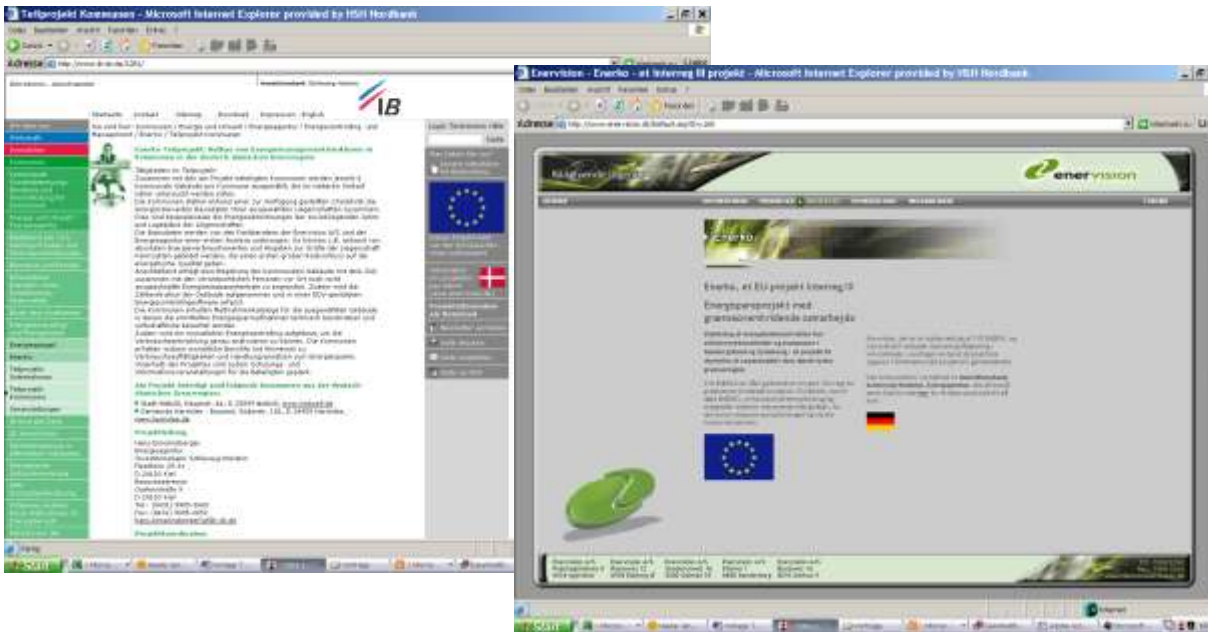
- lighting
- cooling/heating & ventilation
- hot water production & water use

Restructuring alternatives with possible energetic saving measures are elaborated.

► Energetic restructuring measures

- Lightning: introduction of a detector if somebody is in the room
- Cooling/heating & ventilation: reducing ventilation in meeting room
 - introduction of non-smoking area
 - introduction of CO₂ and temperature sensor
 - new ventilation motor which enables reduced speed
- water:
 - introduction a demand oriented switch in hot water boiler – hot water is only produced when needed
 - introduction of new toilet tanks (two volume flush)

► Project Website www.enerko.eu



Investitionsbank Schleswig-Holstein

Fleethörn 29 - 31

D-24103 Kiel

www.ib-sh.de/enerko

Cornelia Pankratz

Euro Info Centre

Tel. (04 31) 99 05 – 3270

cornelia.pankratz@ib-sh.de

Dipl.-Ing. Gunnar Bartels

Energy Agency Schleswig-Holstein

Tel. (04 31) 99 05 – 3112

gunnar.bartels@ib-sh.de

Thank you very much for your attention!



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