Energy efficiency - a key factor in global competitiveness

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The Region of Upper Austria
Oberösterreich

Capital: Linz
Population: 1.4 million
Area: 12,000 km²
Economic activity: 25% of the Austrian industrial exports
The Energy Agency of Upper Austria
OÖ Energiesparverband

promotes energy efficiency and renewable energy

provides services to households, businesses & municipalities

develops & implements policies & manages programmes
Business location

The framework conditions for businesses and their economic development opportunities
"Location factors" for business development

Source: TU Wien, Department für Raumordnung, Infrastruktur- und Umweltplanung
Economic facts Upper Austria

- Inhabitants: 1,437,251
- Employed persons: 629,129

**Gross domestic product per capita 2013**
- 39,308 EUR

**24.8% share of Austria’s total export**

**New companies founded**
- 5,432

**R&D expenditure 2013**
- 1,738,000,000 EUR

**Industry**
- 40%

**Services**
- 55%

**Tourism**
- 3%

**Agriculture and forestry**
- 2%

**26.1% share of Austria’s industrial output**
Energy production and consumption
Upper Austria

Gross domestic energy consumption by energy source
- coal: 24%
- gas: 19%
- oil: 25%
- renewables: 32%
- biomass: 16%
- hydro: 11%
- other renewables: 5%

Sectoral final energy consumption, 2014
- transport: 29%
- private households: 21%
- services: 7%
- iron, steel, chemical industries: 17%
- other manufacturing industries: 26%
Energy intensity
Gross domestic consumption per GDP

Source: IEA, 2012
Why should businesses be interested in energy efficiency?

- saving costs
- security of supply
- competitiveness
- innovation
- sustainability
Energy (efficiency) as a "location factor"?

Energy as a location factor is not only about:
energy infrastructure, energy prices and energy supply security

but also about

• increasing the competitiveness of all domestic companies by decreasing their energy costs
• increasing the offer of energy efficiency products and services (and export them)

How?

• ambitious energy policies framework
• concrete instruments and measures
Carrots, sticks and tambourines
Upper Austria's policies for competitive businesses

"sticks"

Regulatory measures
- stringent & progressive requirements for building envelopes (heating & cooling)
- emission & efficiency standards for installations
- mandatory energy management for large businesses

"carrots"

Financial measures
- attractive investment grants for energy efficiency measures & renewable heating
- contracting programme
- regional R & D program, pilot projects

"tambourines"

Information & training
- energy advice
- training programmes
- publications, campaigns & competitions
- CTC - sustainable energy business network

Policy Packages
Stimulate demand
Support supply
Example "sticks"

Requirements for building cooling

Cooling demand for non-residential buildings:

new buildings: maximum 1 kWh/m³
renovation: maximum 2 kWh/m³

Example office building

1,000 m², 10 kWh/m³ cooling demand = 5,000 €/m² cooling costs p.a.,
at 2 kWh/m³: reduction by 80% = 4,000 €/a
Examples "carrots"
Energy subsidies for businesses

• energy efficiency and renewable energy subsidies for businesses: national and regional programmes since many years

• new attractive programme in Upper Austria since 1 March 2017

• example area: thermal building renovation, heat recovery and use of industrial heat, process optimisation, efficient lighting,

• up to 50 % funding!

Example optimisation lighting: costs 50,000 €, funding 21,750 €

Example optimisation compressed air: costs 138,000 €, funding 65,000 €
Examples "carrots"

Energy technology programme Upper Austria

• funding programme for the development of new energy efficiency and renewable technologies, solutions and products (RD&D)

• funding up to 60% of the costs

• 140 project funded with over 70 Million € costs

• resulting in many new products from Upper Austria, available on the domestic market and also for export!
Example "tambourine"
Systematic information offer for energy managers in companies

- targeted development and dissemination of information materials
- information events (e.g. Innovation Fora)
- energy advice for companies (up to 6 consultants days, 75 % subsidy)
- training programmes in the "Energy Academy"
- active promotion of funding programmes
Supporting the offer of the industry

The Cleantech-Cluster (CTC)

The network of energy & environmental technology companies in Upper Austria
160 energy technology partner companies
ENLEIT OÖ
Energietechnologie
Leitregion Oberösterreich
Development of the specific energy consumption
Upper Austria

energy policy target: energy intensity improvement 2% per year
Thank you for your attention!

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