

ENERGY-EFFICIENT BUSINESS PROGRAMME KLIMAAKTIV SUPPORTS AUSTRIAN INDUSTRIAL SMES

Business for Climate & Energy Efficiency

Petra Lackner, Austrian Energy Agency

25th of September 2018, Nicosia



SCRIBBLE VIDEO

HOW IS THE PROGRAMME ORGANISED?

Federal Ministry for Sustainability and Tourism
Strategy

Austrian Energy Agency
Management and Coordination



Education & training / communication / partner management / municipalities



Network of klimaaktiv experts from all over Austria

OBJECTIVES OF THE PROGRAMME

- Awareness Raising for Energy Efficiency in Industry
 - organising information events in co-operation with sector associations
 - organising an annual energy efficiency award
- Implementing energy management according ISO 50001
- Implementing energy efficiency measures in industrial enterprises in co-operation with partners
- Implementing standardised energy audits by organising standardised trainings for energy auditors

klimaaktiv


Schritte zur Verbesserung
der Energieeffizienz in Betrieben
EIN LEITFADEN



Pump genau
Energiekosten senken – Wasser richtig lenken



KLIMAAKTIV WORKS ON FIVE LEVELS

Energy efficiency award, newsletters,
320 best practice examples, branch
specific energy concepts

Energy auditors
and technical
partners

Information

Federal support
programmes, chambers
of commerce,
companies (project
partners)

Advice &
Support

Network of
Partners

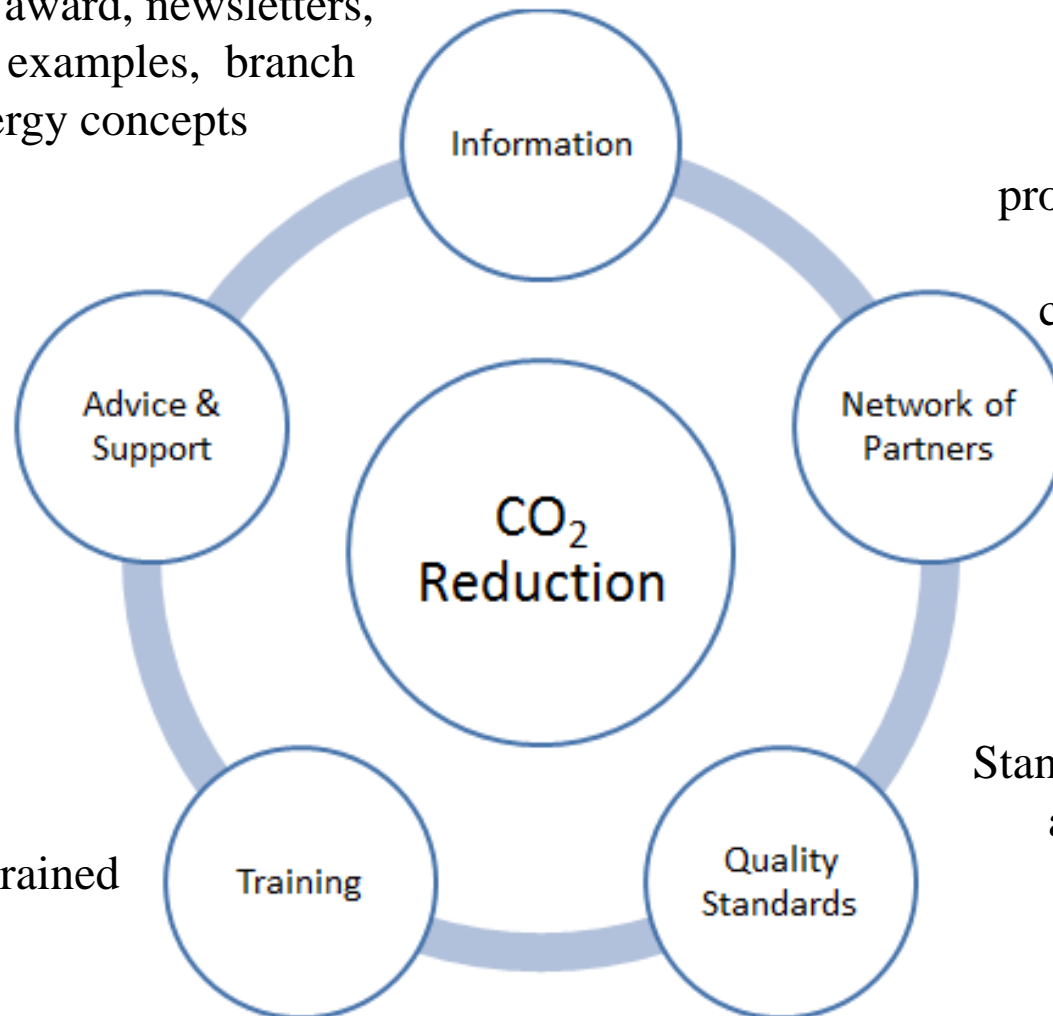
CO₂
Reduction

Standards for initial audits
and specific audits

More than 600 trained
experts

Training

Quality
Standards



SUBSIDIES

COOPERATION WITH FEDERAL SUPPORT PROGRAMMES

- Subsidies for energy audits
- Trainings of energy consultants
- Awareness raising events



WIRTSCHAFTSINITIATIVE
NACHHALTIGKEIT

ecotirol
Beratungsservice Umwelt

umwelt
service
salzburg
Gut beraten.
Energie sparen.


B U O
Betriebliche
Umweltoffensive

WKO
WIRTSCHAFTSKAMMERN ÖSTERREICHS


OekoBusiness Wien


ökofit
Effizienzberatung für Betriebe


ENERGIE TIROL



ökomanagement
niederösterreich



Energieinstitut Vorarlberg

ENVIRONMENTAL SUBSIDIES



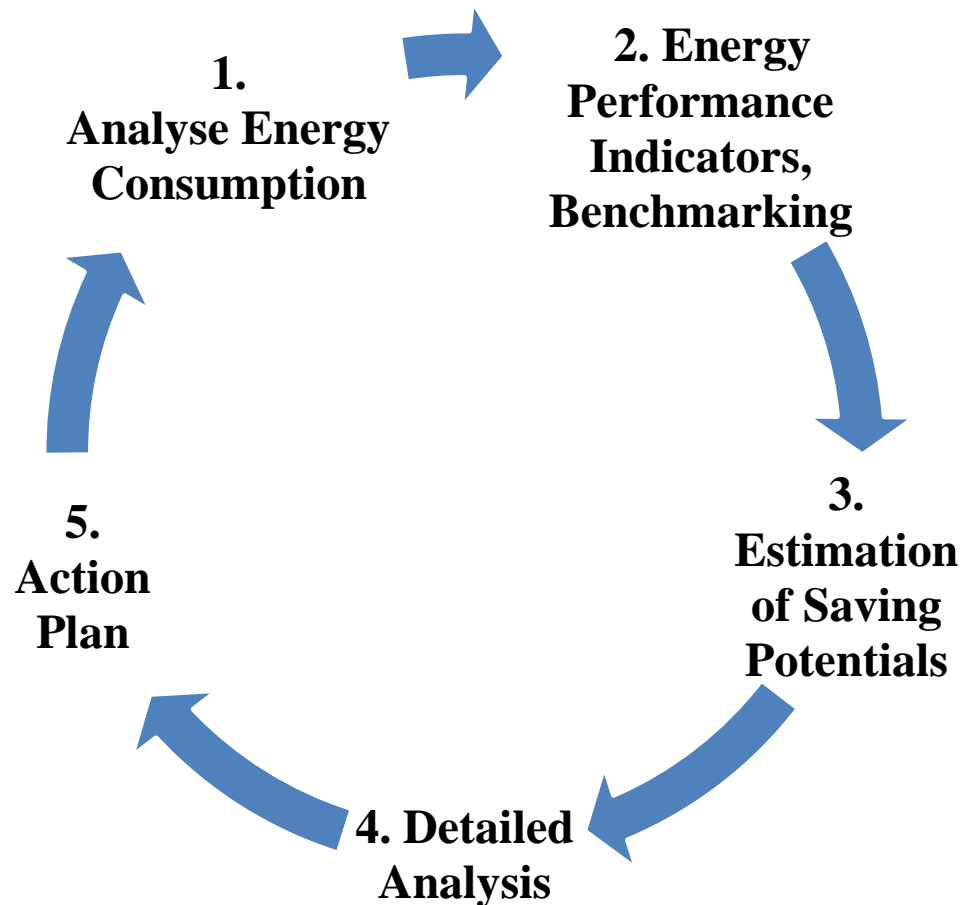
	Altlasten
	Energiesparen
	Fahrzeuge
	Forschung & Innovation
	Gebäude
	Modellregionen

- Energieeffiziente Kühl- und Gefriergeräte
- Energiesparmaßnahmen
- Klimatisierung und Kühlung
- LED-Systeme im Innenbereich
- Mustersanierung
- Neubau in energieeffizienter Bauweise
- Straßenbeleuchtung
- Wärmerückgewinnung < 100 kW
- Wärmerückgewinnung >= 100 kW

Subsidy
up to 35% of environmental
effective investment costs
+ additional regional
subsidies

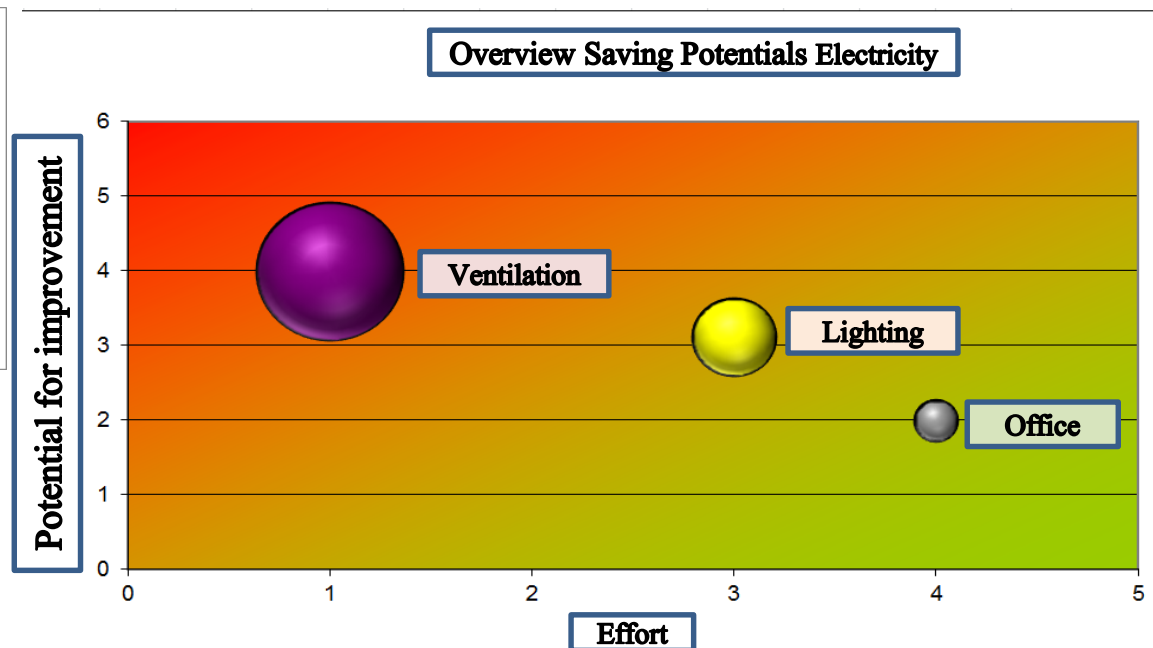
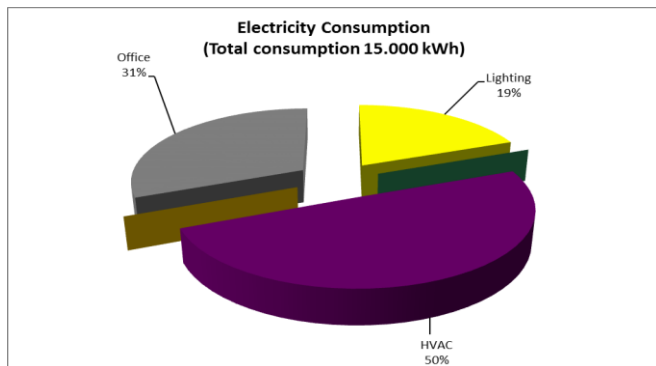
TOOLS FOR ENERGY AUDITORS AND COMPANIES

KLIMAAKTIV CYCLE OF CONTINUOUS IMPROVEMENT



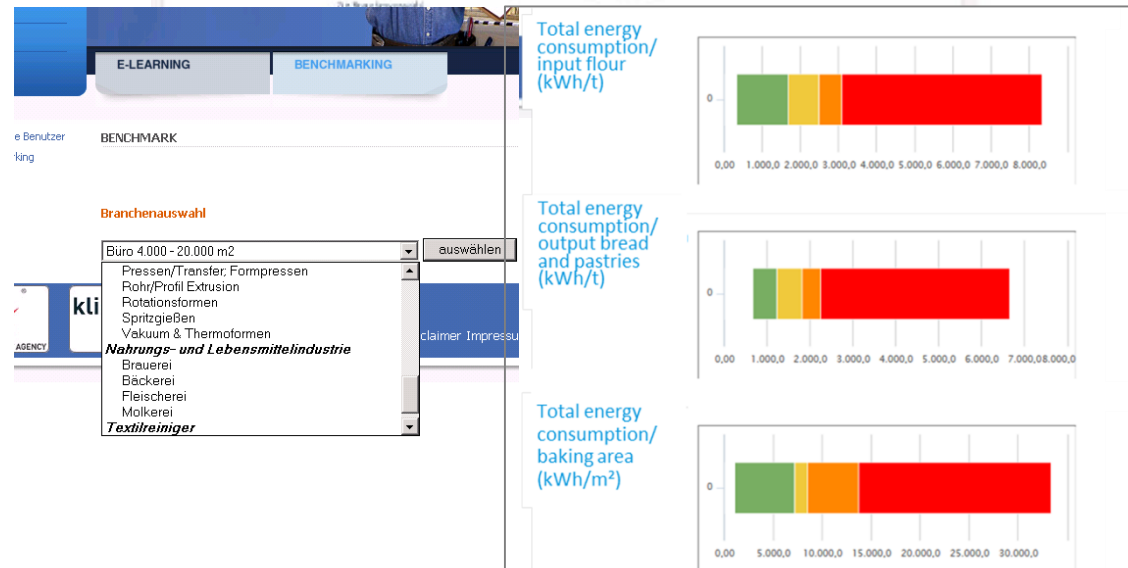
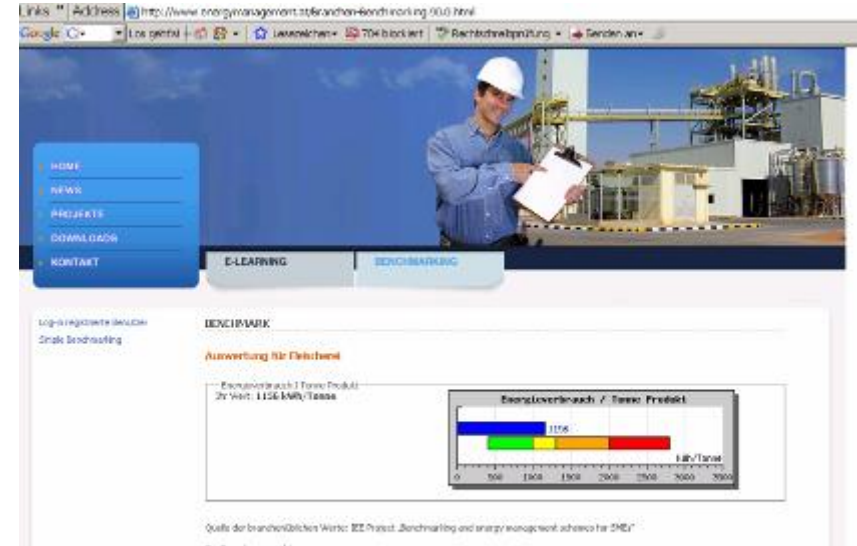
AUDIT TOOL FOR ANALYSING THE ENERGY CONSUMPTION

- The klimaaktiv “ProTool” gives an overview of the main electrical and thermal energy consumers
- Works with expert judgement - no sub-metering in this step required



BENCHMARKING

- Offices
- Printing companies
- Hair salon
- **Retail / wholesale**
- Wood industry
- **Hotel industry and gastronomy**
- Car repair shop and garages
- Plastics industry
- Metal processing
- Food and food industry
- Textile cleaner



E-LEARNING TO IMPLEMENT ISO 50001



The screenshot shows the website header with the klimaaktiv logo and navigation tabs: HOME, ENERGIEMANAGEMENT, ENERGIEKENNZAHLEN, DOWNLOADS, KONTAKT, IMPRESSUM. Below the navigation is a circular diagram representing the ISO 50001 implementation model, divided into four quadrants: Management Review (top-left), Rechtvorschriften (top-right), Überwachung (bottom-left), and Schulung (bottom-right). The center of the diagram features a circular flow with the words ACT, PLAN, CHECK, and DO, and the text 'Start-aktivitäten'. A list of activities is provided on the left side of the diagram.

Management Review

- Management Review
- Rechtsvorschriften
- Energetische Bewertung
- Energetische Ausgangsbasis
- Kennzahlen
- Ziele
- Überwachung
- Bewertung
- Rechtsvorschriften
- Internes Audit
- Nichtkonformitäten
- Aufzeichnungen

Schulung

- Schulung
- Kommunikation
- Dokumentation
- Ablauflenkung

Verantwortlichkeiten Energiepolitik

- Rechtvorschriften
- Energetische Bewertung
- Energetische Ausgangsbasis
- Kennzahlen
- Ziele
- Management Review
- Management Review
- Rechtsvorschriften
- Energetische Bewertung
- Energetische Ausgangsbasis
- Kennzahlen
- Ziele
- Startaktivitäten

ACT PLAN CHECK DO

Start-aktivitäten

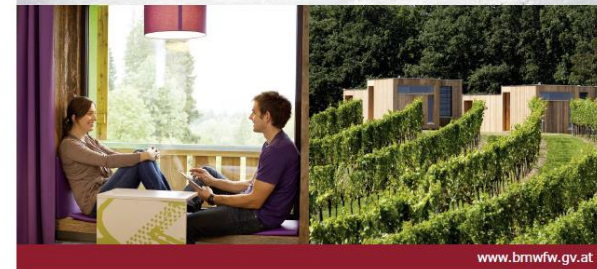
- Überwachung
- Bewertung
- Rechtsvorschriften
- Internes Audit
- Nichtkonformitäten
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- Schulung
- Kommunikation
- Dokumentation
- Ablauflenkung

Logo: e AUSTRIAN ENERGY AGENCY



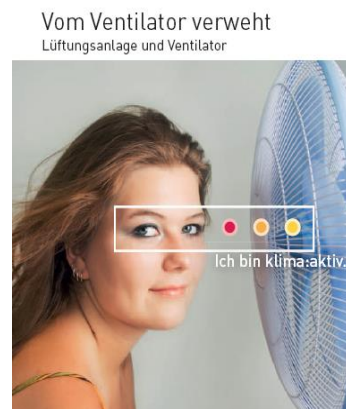
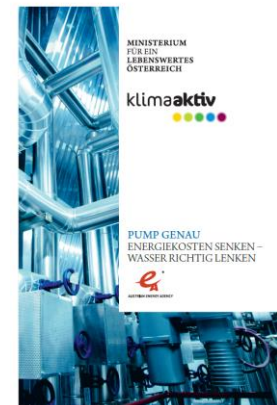
Energiemanagement in der Hotellerie und Gastronomie

Leitfaden, 3. Auflage



www.energymanagement.at

DETAILED ANALYSIS - TECHNOLOGY STANDARDS THE BACKBONE OF KLIMAAKTIV



SCRIBBLE VIDEOS AND POSTERS

“HOW TO BECOME AN ENERGY EFFICIENT COMPANY“

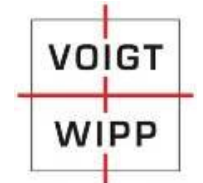


NETWORKS

COOPERATION WITH TECHNOLOGY PARTNERS



Technik die verbindet



* Das macht Sinnhuber.

ACTION PLAN – COOPERATION WITH “PROJECT PARTNERS”

klima**aktiv** objective agreement

The companies commit to implement economic energy efficiency measures which entitles them to use the klima**aktiv** project partner logo

klima**aktiv**



Projektpartner

PROJECT PARTNER



EXCURSIONS TO LEARN FROM EACH OTHER



TRAININGS FOR ENERGY AUDITORS, ENERGY MANAGERS AND TECHNICAL STAFF

KLIMAAKTIV TRAININGS FOR ENERGY AUDITORS AND TECHNICAL STAFF

10 training days

- Initial energy audit and energy management
- Measurement and verification
- Optimisation of cross sectoral technologies like pump systems, HVAC, steam systems, lighting etc.



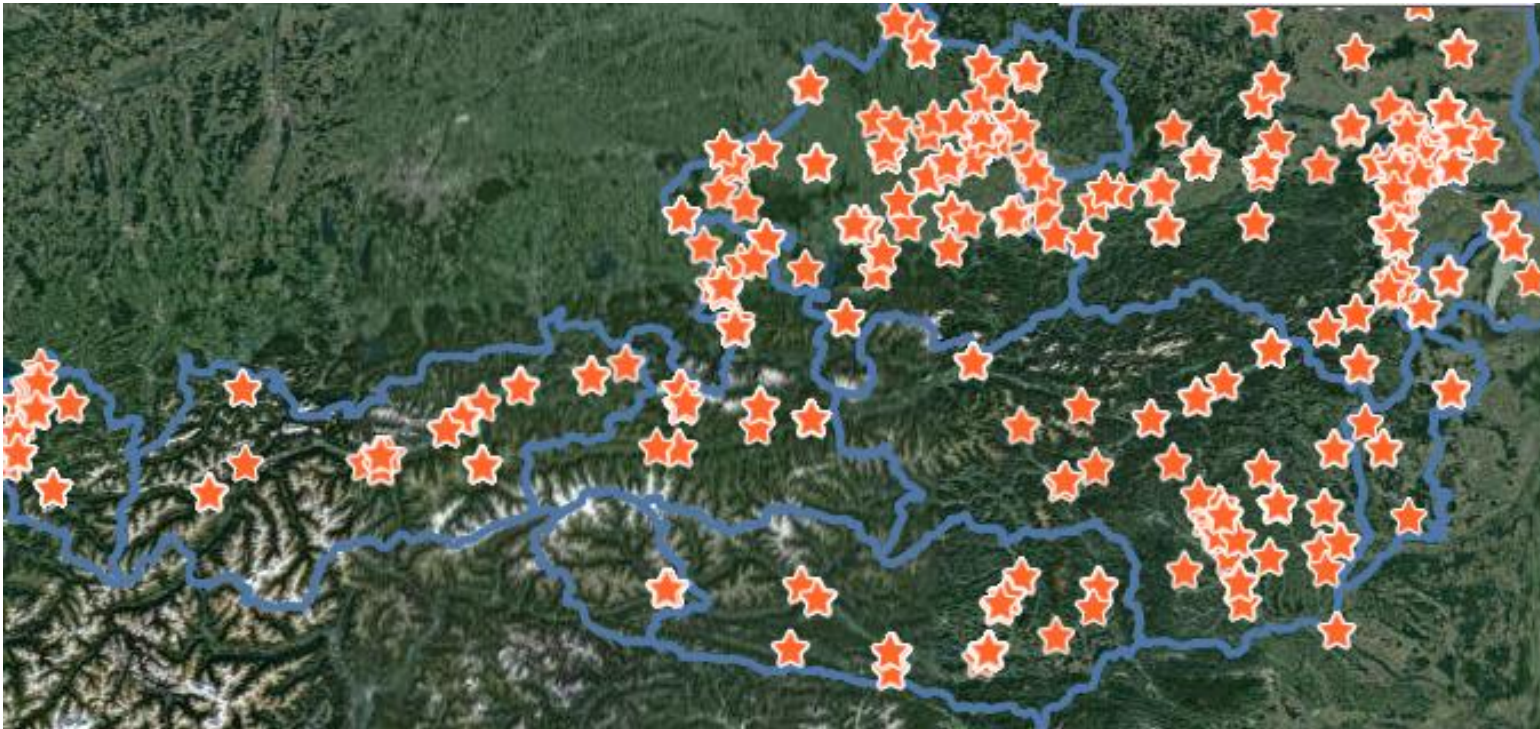
TOOLS AND SERVICES FOR MOBILITY

ECODRIVING AUSTRIA – STANDARDS & CERTIFICATION



- Basis for certification of trainers
- Trainers complete a 2-day seminar for every category

NETWORK OF ECODRIVING TRAINERS



- More than 1,500 trainers for cars, trucks, buses, tractors
- Refreshment courses every 5 years

KLIMAAKTIV MOBIL

- Contributing to EU and Austrian environmental & energy targets
- Providing free advice and financial support to
 - cities, municipalities, regions
 - businesses, fleet operators and property developers
 - tourism operators
 - schools and youth groups,



KLIMAAKTIV MOBIL

11,600 klimaaktiv mobil projects have been implemented regarding environmentally friendly mobility in Austria, saving more than 500,000 t CO₂/a

- 9,200 companies saving 300,000 t CO₂/a
- 1,100 cities and municipalities saving 120,000 t CO₂/a
- 900 tourism institutions saving 80,000 t CO₂/a
- 400 schools and kindergardens



GOOD PRACTICE EXAMPLES

EXCHANGE OF NON-REGULATED PUMPS



A&R Carton is a global player in packaging

Situation before

- 70 circulator pumps in the HVAC system
- 16 vacuum pumps

Energy efficiency measure

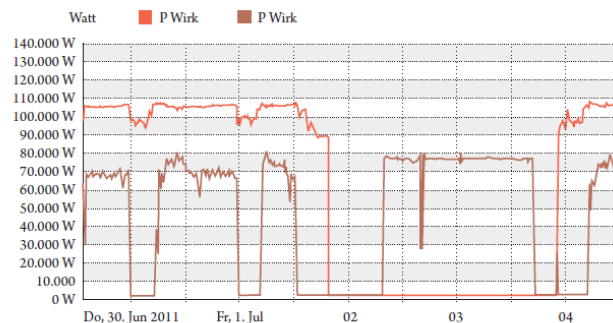
- Exchange of 46 circulator pumps
- Implementation of 4 rotary screw vacuum pumps
- Investment 37,000 EUR

Savings

- 130,000 kWh/a
- 12,000 EUR/Jahr

RONDO GANAHL AG

OPTIMISING COMPRESSED AIR SYSTEM



Quelle: netconnect, Armin Zingerle

Situation before

- 2 compressors with 90 kW and 110 kW
- Compressors work on full load
- Company thought on purchasing a third compressor

Organisational Energy Efficiency Measure

- Measuring and analysing compressors
- Optimising operation cycles of both compressors
- Reduction of leakages in air system
- Investments: 10,000 EUR

Savings

- 490,000 kWh/a
- 48,900 EUR/a

AUTOHAUS NAROWETZ

OPTIMISATION OF LIGHTING SYSTEM

Situation before

- 469 T8 fluorescent tube

Energy Efficiency Measure

- LED lamps in the garage, office and showroom
- Investment 40,500 EUR

Savings

- 45,000 kWh/a
- 8,900 EUR/a



WATER MANAGEMENT HOTEL GUTJAHR

Water and Energy saving measures

- Water saving fittings
- Regulation of fittings in wellness area
- Information of guests – awareness raising
- Investment: 53,000 EUR
- Pay back 8 years
- Financed by “water saving contracting”



Savings

- Water 1,000 m³
- Energy 35,000 kWh
- Water costs 4,400 EUR
- Energy costs 2,100 EUR



ABOUT 320 EXAMPLES ONLINE



PROJEKTPARTNER

ADLER-WERK LACKFABRIK
JOHANN BERGHOFER GMBH & CO KG

SCHWAZ

ADLER 2020



UNTERNEHMENSPROFIL

ADLER – Ein Name, der Erfolg verspricht

Es begann mit einem kleinen Farbengeschäft in der Schwazer Altstadt.

Heute ist die Adler-Werk Lackfabrik Johann Berghofer GmbH & Co KG mit über 550 Mitarbeiterinnen und Mitarbeitern Österreichs führender Hersteller von Lacken, Farben und Holzschutzmitteln.

15.500 Tonnen Lack verlassen jährlich das Werk in Schwaz, wovon

mehr als die Hälfte an Kunden in über 25 Ländern weltweit gehen. Als Heimatmarkt steht Österreich mit dem zentralen Produktionsort Schwaz im Mittelpunkt des strategischen Denkens.

STELLENWERT DER ENERGIEEFFIZIENZ

Das Umweltzeichen für ADLER nicht nur ein Lippenbekenntnis ist, beweisen neue, ökologische Produkte, zahlreiche Auszeichnungen und Zertifizierungen, in deren Rahmen sich die Lackfabrik regelmäßig strengen Kontrollen unterzieht. Innovation und Forschung spielen dabei eine wichtige Rolle.

Die Aufzeichnung der Verbraucher und die Erfassung über Kennzahlen erfolgt seit dem Jahr 1999. Die Adler-Werk Lackfabrik Johann Berghofer GmbH & Co KG ist seit 2013 ISO 50001 zertifiziert.

Am Shed-Dach des neu errichteten Produktionsgebäudes wurde eine Photovoltaikanlage mit einer Gesamtleistung von 114 kWp installiert. Der geschätzte Jahresertrag von 131.000 kWh wird zu 90 % ins ADLER Stromnetz und zu 10 % ins öffentliche Stromnetz gespeist.

klimaaktiv.at
bunifw.gv.at



- Different categories
- Description of situation before and after the measures
- Savings in kWh
- In German only

Some klimaaktiv examples can be found here in English:

<http://www.green-foods.eu/best-practice/>

SELECTED RESULTS

- 890 GWh energy savings, 284,600 tonnes CO2 savings
- More than 2,000 participants in trainings (650 persons)
- 324 good practice examples online
- A set of standardised energy audit tools
- Scribble videos, posters and benchmarking system for awareness raising
- Active network of energy experts



CONTACT

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