

# ENERGY MANAGEMENT SYSTEMS (EnMS) IN CITIES & MUNICIPALITIES

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## E5 PROGRAMME FOR ENERGY EFFICIENT MUNICIPALITIES



Workshop Energy Management Systems in Cities and Municipalities  
November 2016, Gabrovo, Bulgaria

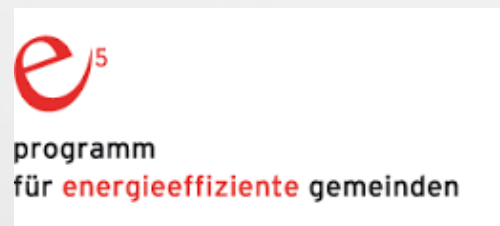
# ENERGY MANAGEMENT SYSTEMS IN PRACTICE

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- ISO 50001: Energy management systems – Requirements with guidance for use (2011)



- e5/ European Energy Award, which is also recognized as an implementation tool within the Covenant of Mayors by the European Commission



# e5 and the EUROPEAN ENERGY AWARD®



## A Quality Management System for Energy-related Activities in Municipalities



**klimaaktiv**



MINISTERIUM  
FÜR EIN  
LEBENSWERTES  
ÖSTERREICH



# e5 and the European Energy Award®

1998: e5 programme (AT)

2002

European Energy Award (AT, DE, CH, PL)

- Due to its already established strong brand, Austria kept the title e5 Programme



## What is e5?

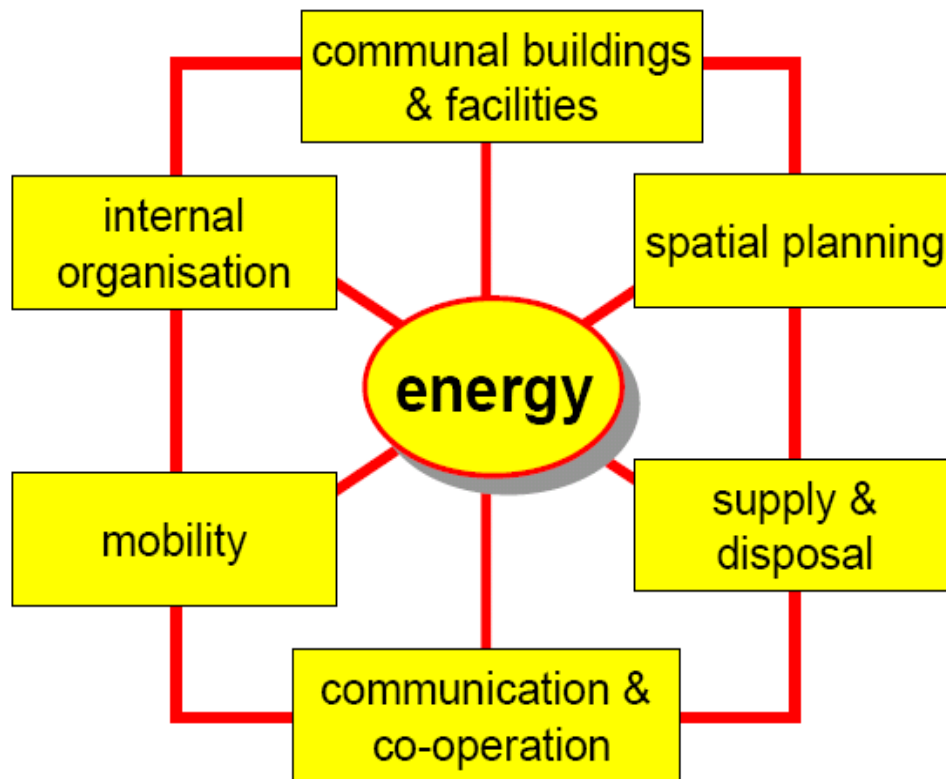
- **Quality management system** for holistic energy planning
- **Certification and award** for energy-related achievements and control of success through regular audits

# Benefits of e5 for municipalities

- Development and implementation of a sustainable energy policy
- Energy efficiency improvement
- Use of a comprehensive catalogue of measures, based on experiences of other municipalities
- Reduction of costs and emissions - active contribution to climate protection
- Better quality of life, better image of the municipality, active participation of inhabitants and strengthening “ownership” of e5
- Capacity building for employees of the municipal authority
- Support through the e5 energy advisor network
- Experience exchange with other municipalities

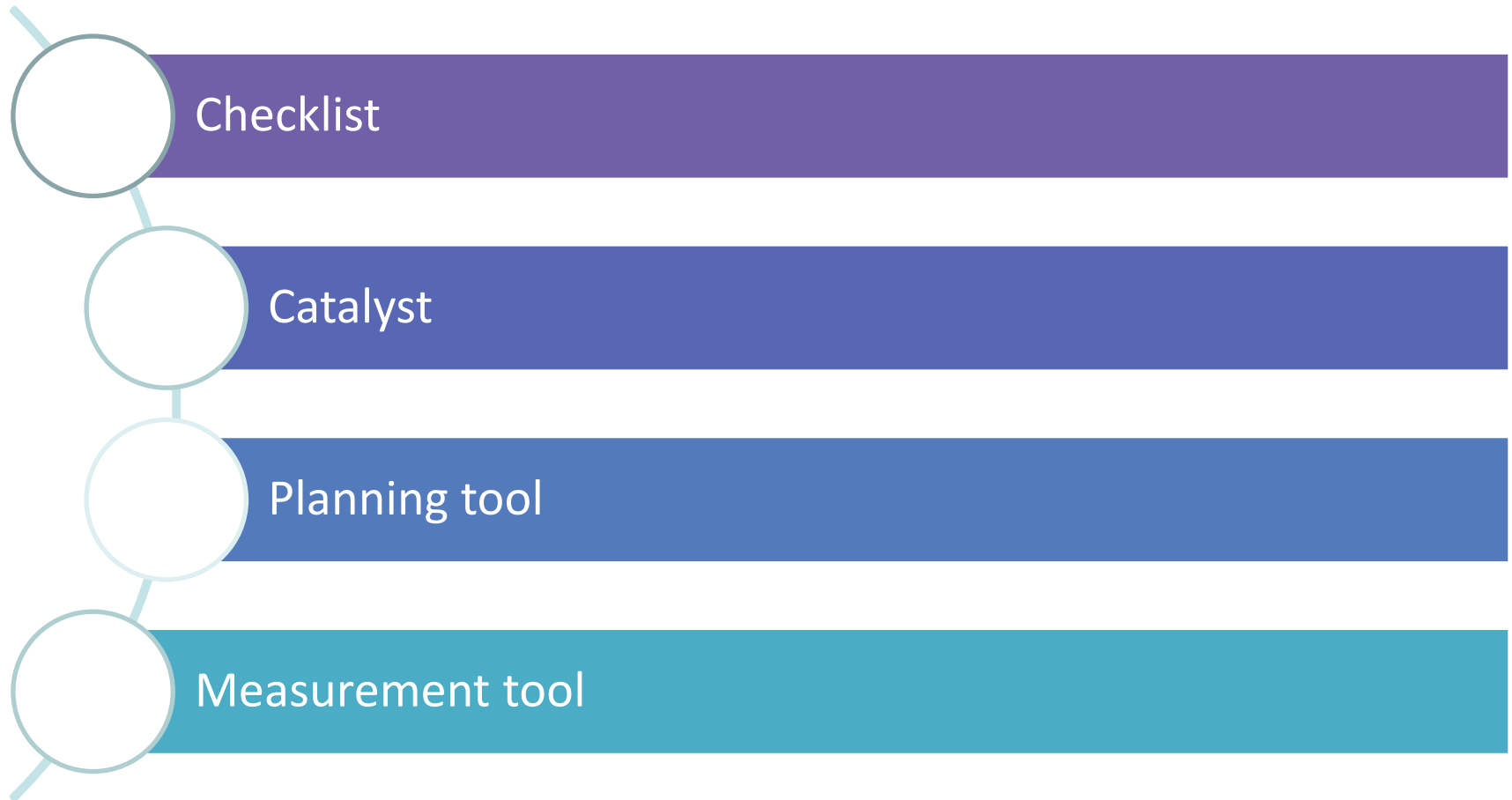
# e5 Catalogue of Measures: The Core of e5!

- 6 Action Areas
- 79 climate protection and energy measures

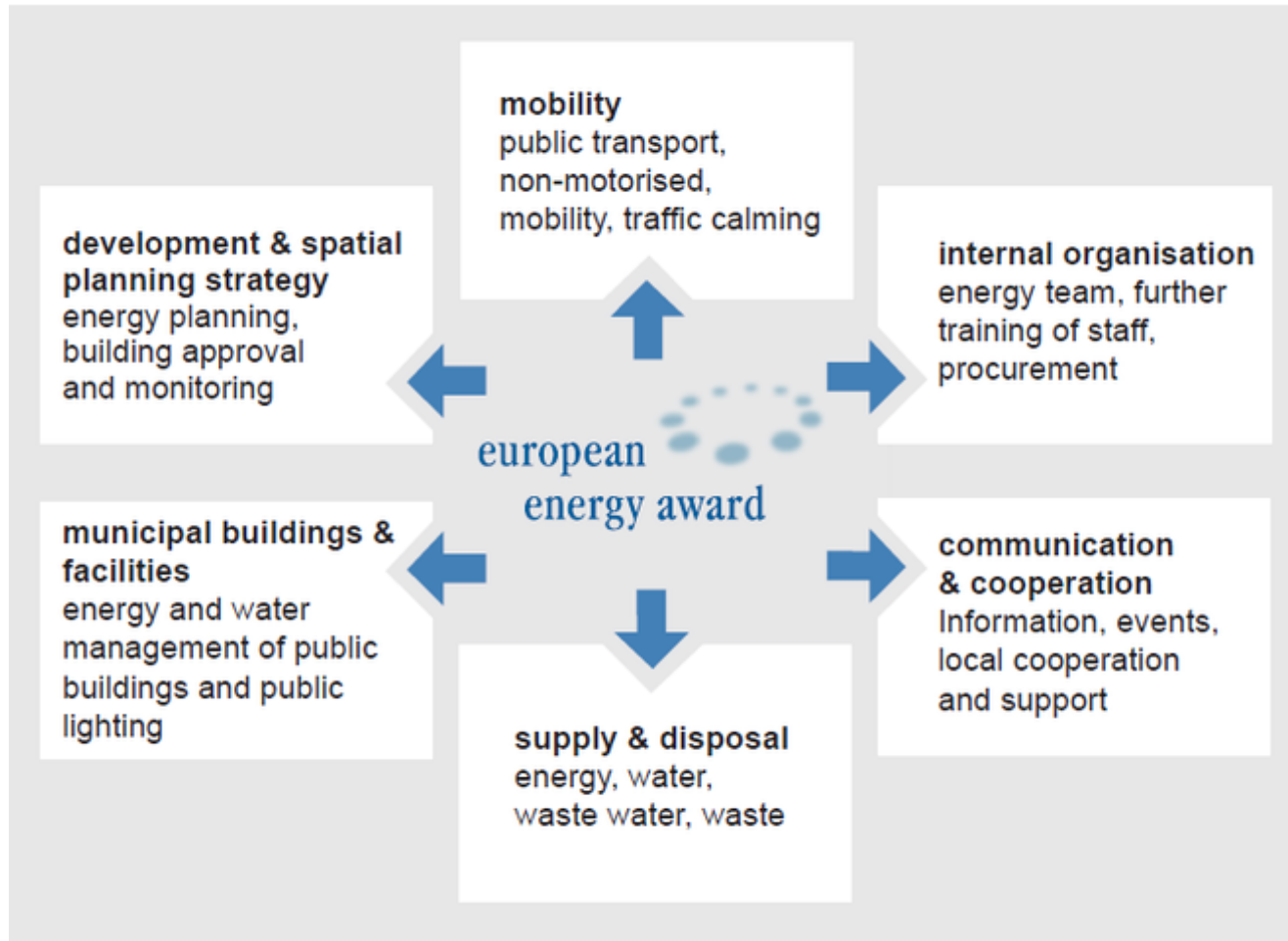


- Points are assigned to each measure
- Max. achievable points (500) are adapted to the scope of action/influence of each municipality

# Functions of the Catalogue of Measures



# eea = e5 Catalogue





# The e5 Process

## START-UP PHASE

Initial Energy Review

## CONTINUOUS PROGRAMME WORK



## CERTIFICATION

External Audit and Awarding

1

- Sign an agreement

2

- Establish an energy team

3

- Develop an energy work programme

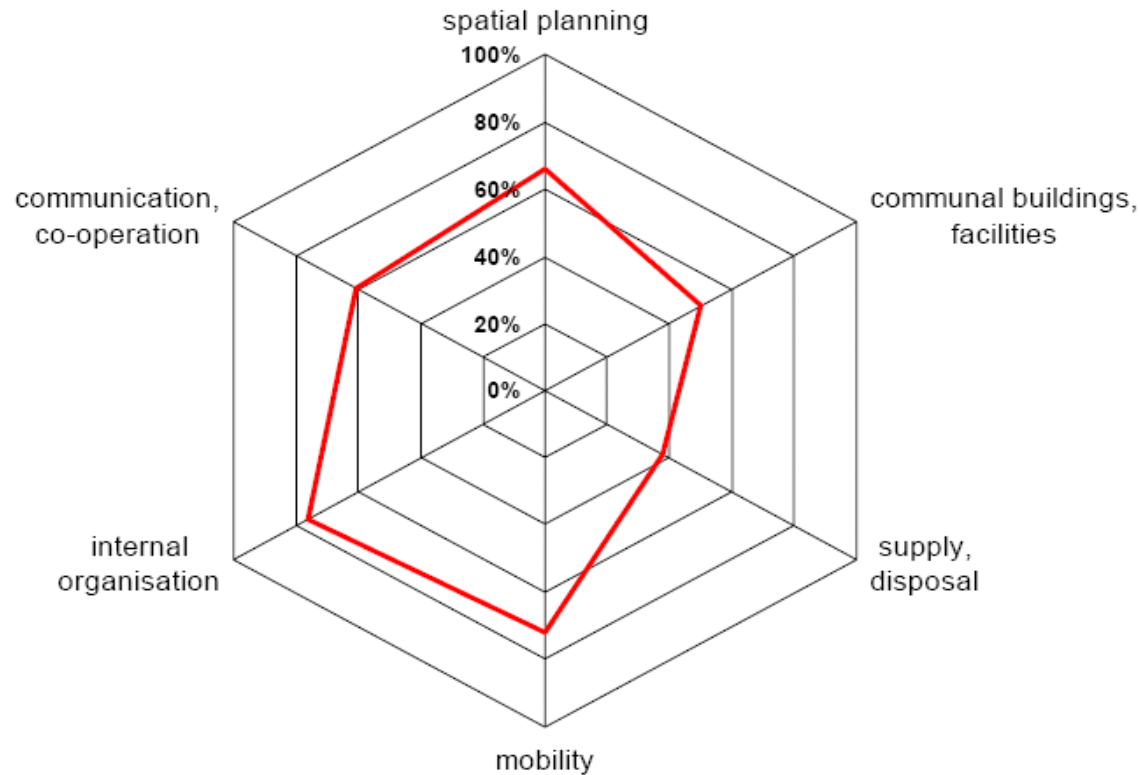
4

- Conduct an initial energy review

5

- Implement the work programme

# Energy Profile: Initial Energy Review/ Audit



Source: e5

- Shows percentage of realisation in each area
- Visualisation of strengths and weaknesses

# Good Practice Example: Municipality Langenegg

## Profile of the energy policy (2009):

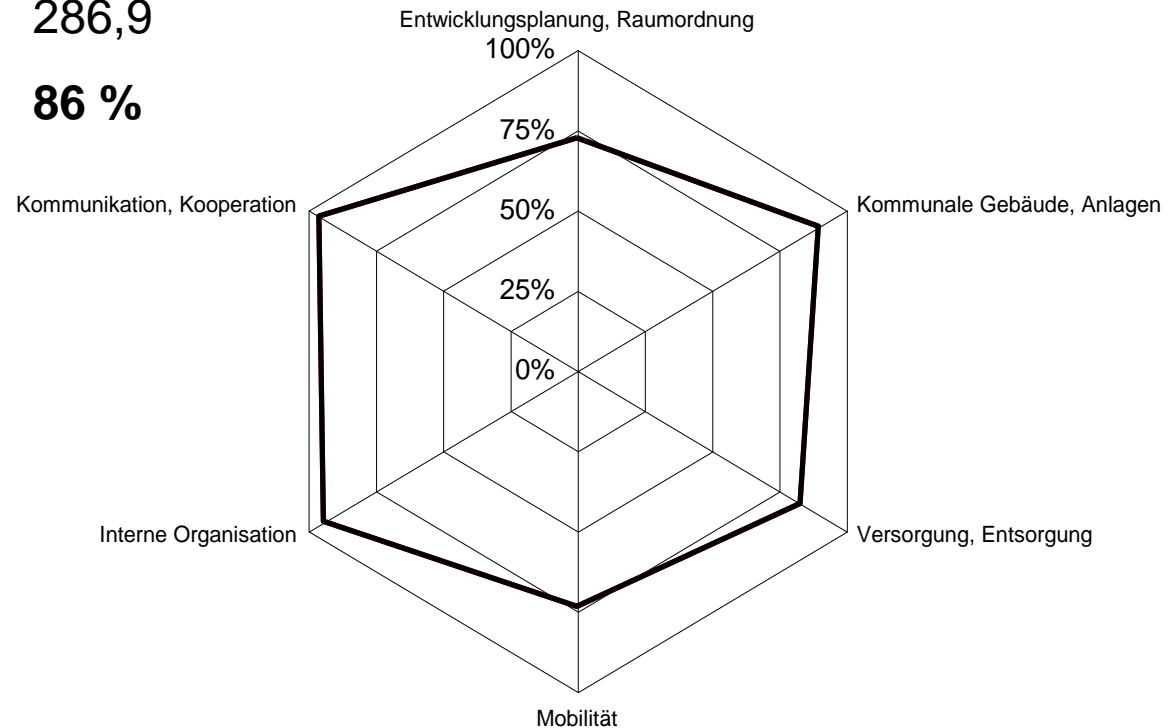
### Audit 2009

Possible points: 332,4

Achieved points: 286,9

**Degree of implementation: 86 %**

Status:



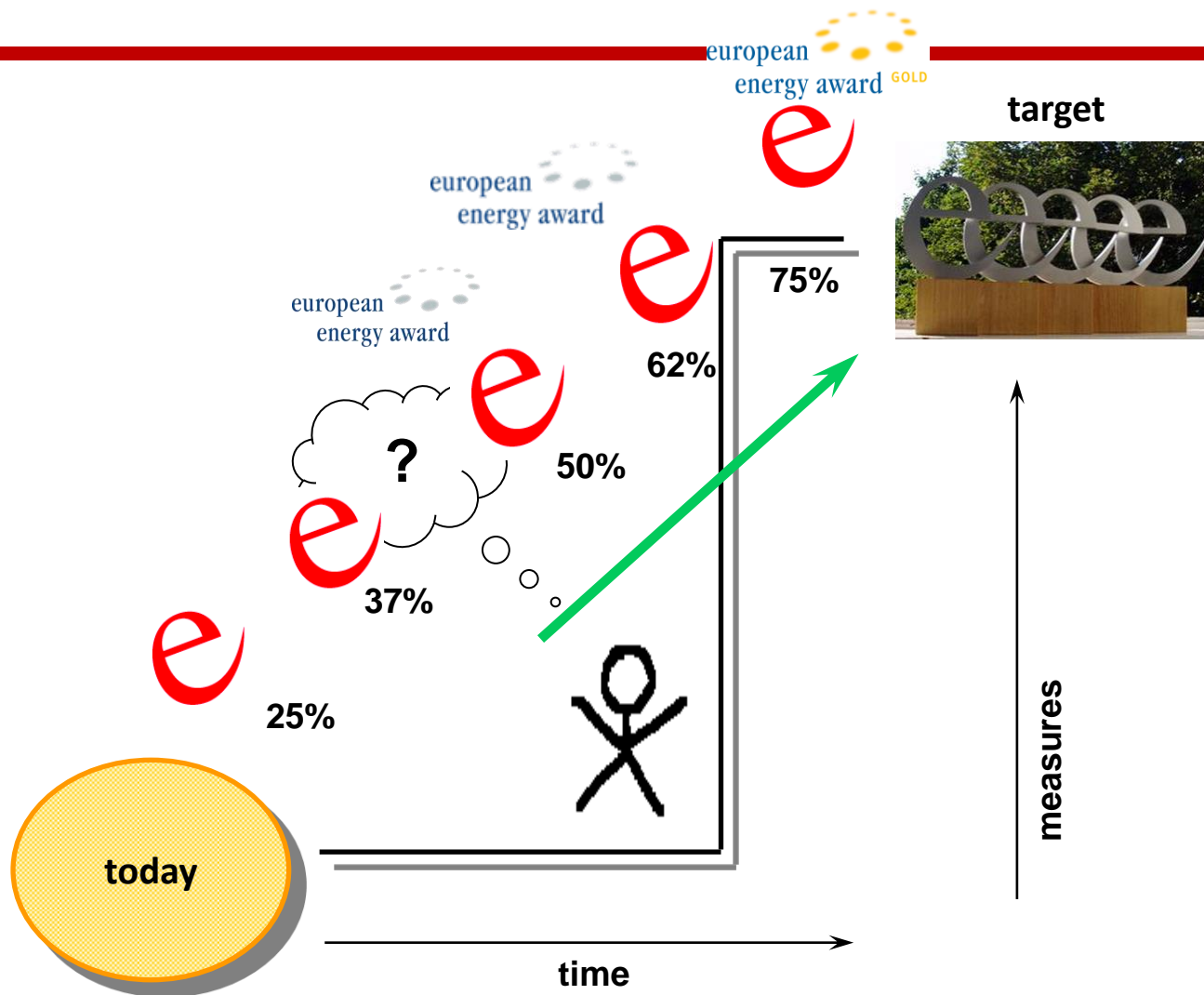
# Energy Policy Programme

Binding programme of activities for subsequent years

## ENERGY POLICY PLAN 2013

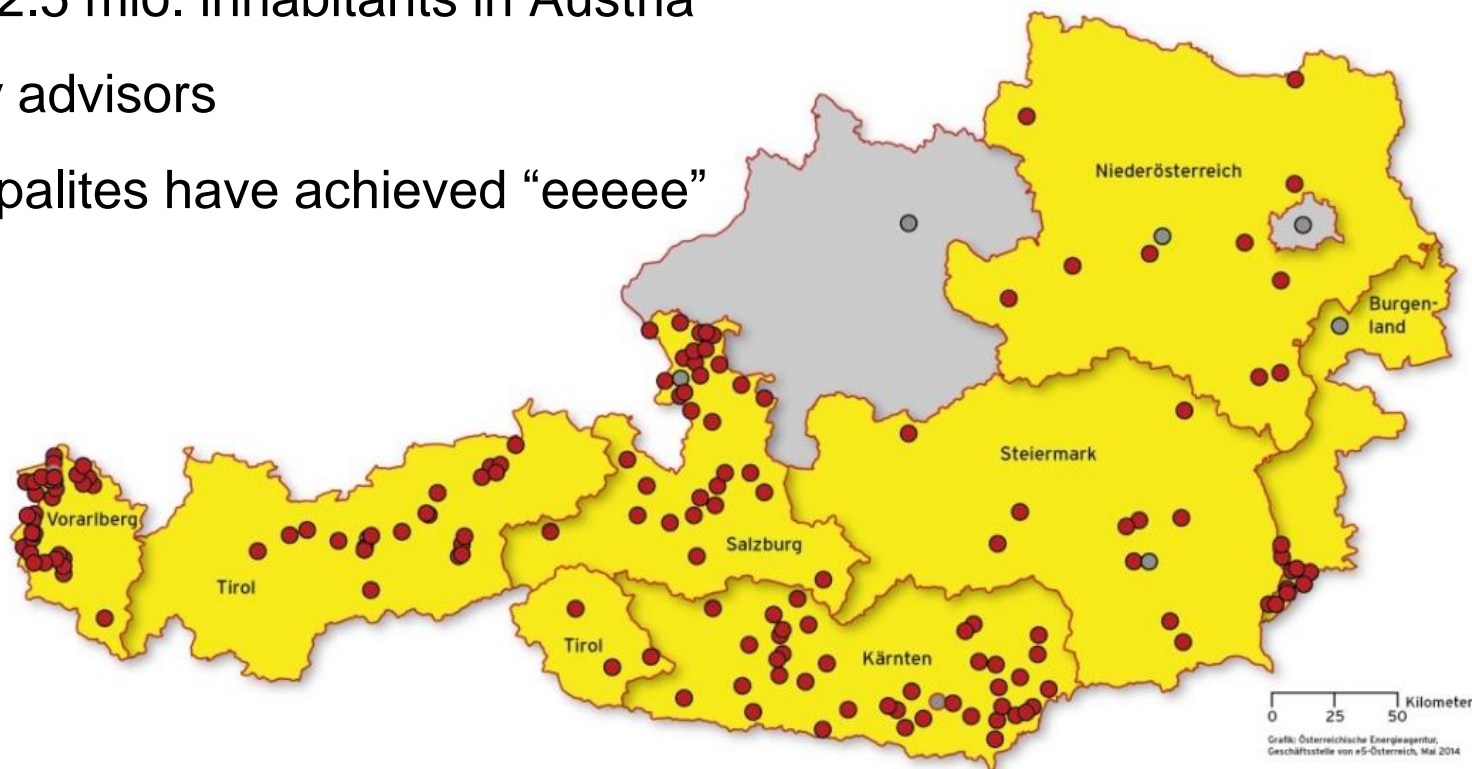
No.	what?		additional eea- points	who?	when?		costs?	
	measure	description of activity		reali- sation lead	termina- tion	priority	single costs	annual costs (internal/ external)
Development, Regional planning								
1.1 Concepts, Strategy								
1.1.1	Climate strategy at municipality level, energy perspectives							
1.1.2	Balance, indicator systems							
1.1.3	Climate protec- tion and energy concepts							

# e5/EEA Certification Scheme

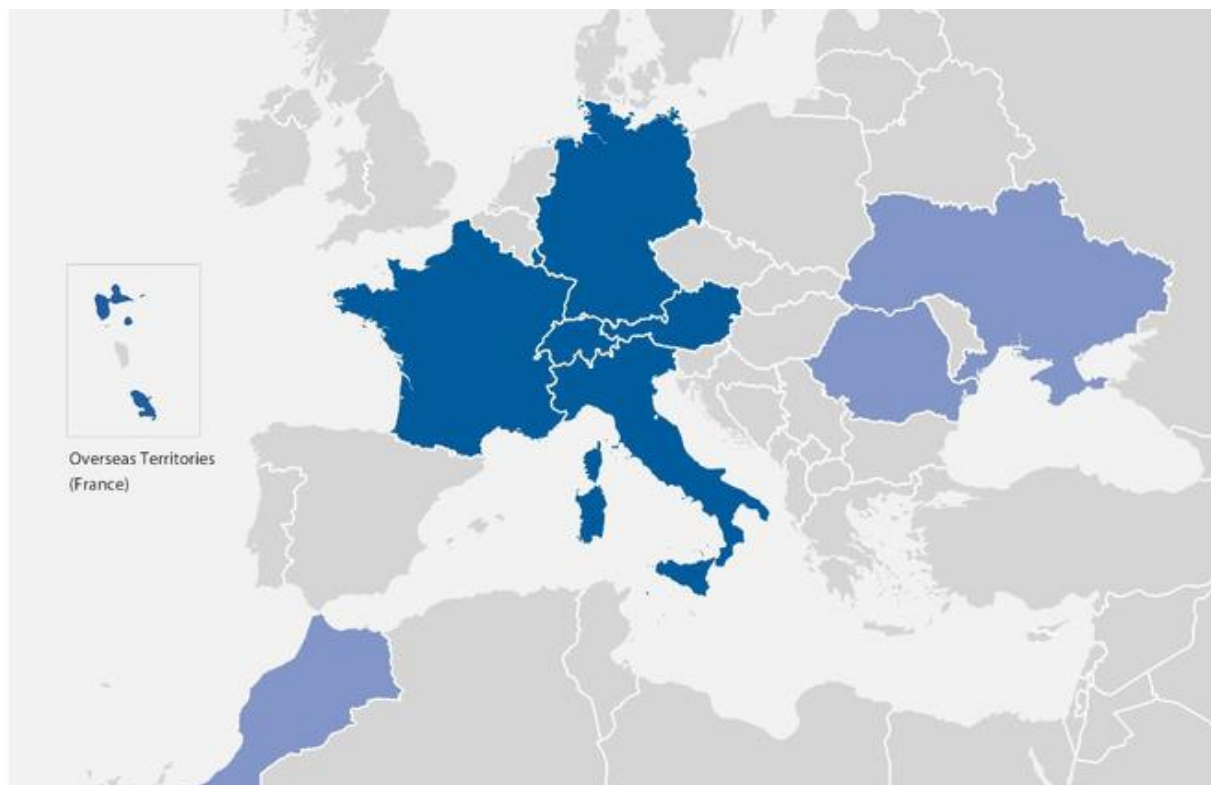


# e5 Coverage and Success in Austria (2016)

- Programme runs in 7 out of 9 provinces
- 194 e5 municipalities & 58 regions
- Covers ~ 2.5 mio. inhabitants in Austria
- 40 energy advisors
- 14 municipalities have achieved “eeeeee”



# e5 and the European Energy Award®



- 11 countries take part in the EEA®
- 3 pilot countries
- Almost 1,400 municipalities
- 46 million inhabitants

# European Energy Award® and the CoM

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Shared Aim: Constant optimisation of energy consumption at municipal level

## Letter of recognition from the European Commission:

We are pleased to confirm that the European Energy Award® can be recognised as an efficient implementation tool for Sustainable Energy Action Plans (SEAPs) in the context of the Covenant of Mayors. In doing so, the European Commission acknowledges the quality management and certification system of the European Energy Award® which has been developed within previous European programmes.

We acknowledge that there is a high analogy and good convergence between the European Energy Award® and the Covenant. As the signing of the Covenant entails



# Covenant of Mayors

- CoM was launched by the European Commission's DG ENER in 2008
- Voluntary commitment by local and regional authorities to increase EE and the use of RE
- Aim to exceed the EU 20% CO<sub>2</sub> reduction target by 2020.

23 Signatory profiles found. \*

Signatories	Population	Commitments	Status
Aksakovo, BG	8,600	2020	
Asenovgrad, BG	59,953	2020	
Burgas, BG	226,000	2020 ADAPT	
Dobrich, BG	93,500	2020	
Gabrovo, BG	63,903	2020	
General Toshevo, BG	17,500	2020	
Ihtiman, BG	13,458	2020	
Karlovo, BG	25,793	2020	

# e5/ eea & Covenant of Mayors: Similarities & benefits

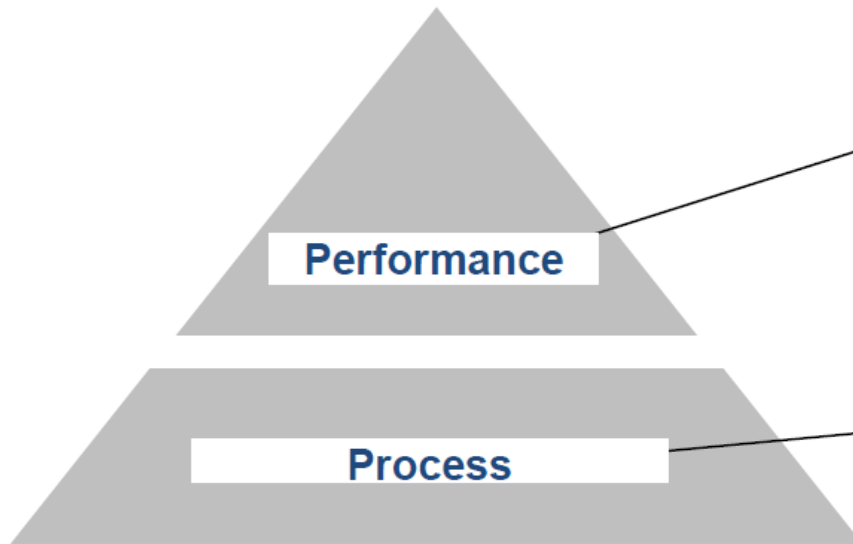
**e5/ eea measures ≈  
CoM implementation  
sectors**



## Benefits of both systems:

- QM systems with periodical review processes
- Aim = to continually improve performance
- PDCA process
- External auditors (required for certification)
- Minimum qualification and competence requirements and regular training of eea auditors
  - In line with EED requirements (EED 2012/27/EU) and European Standards on energy audits and qualification of auditors, EN 16247

## Two different, but complementary approaches



**Mainly performance-orientated  
(e.g.)**

- Energienstadt, eea

**Mainly process-orientated**

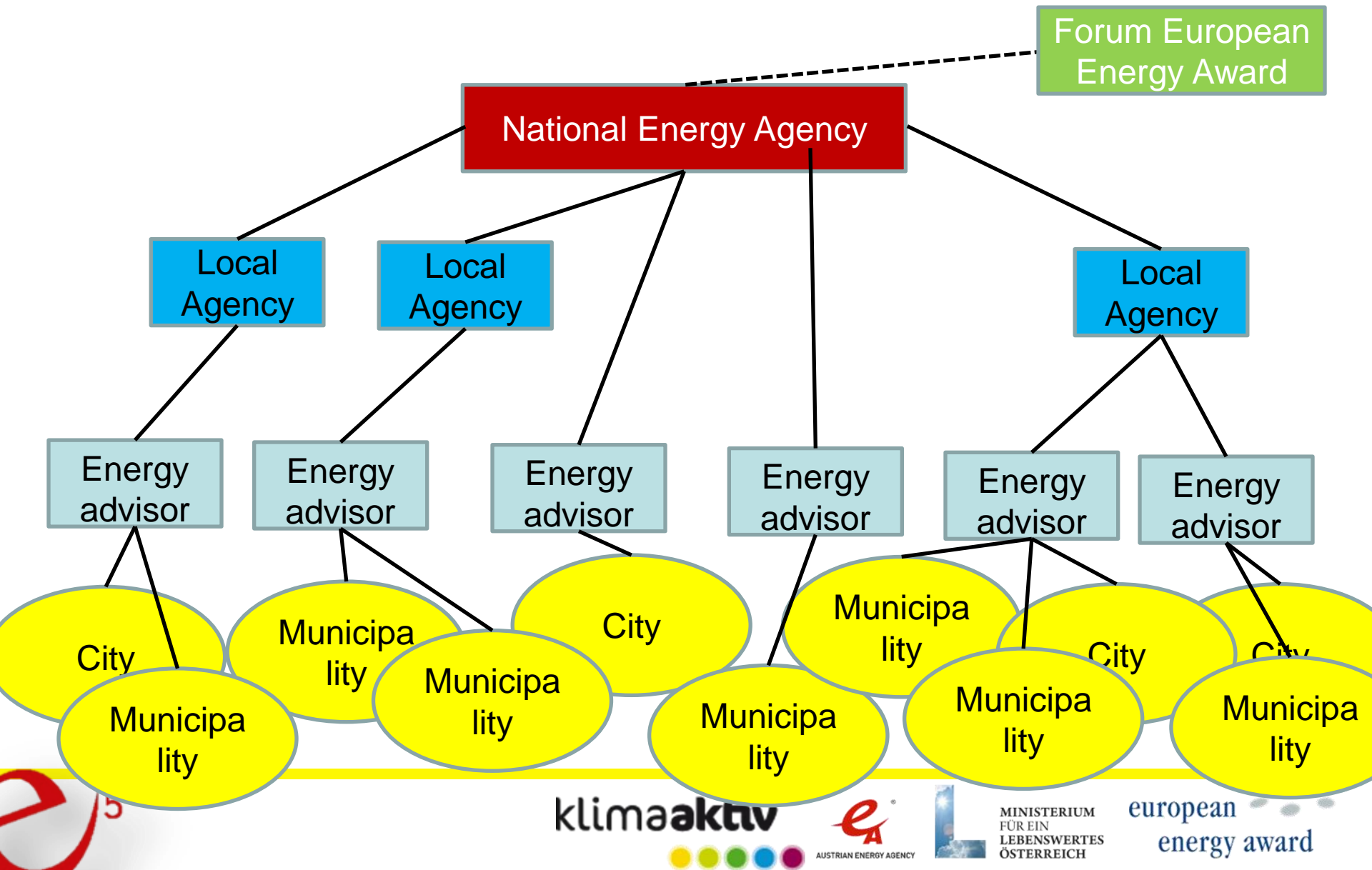
- ISO 14'001
- ISO 50'000

Source: european-energy-award.org

source:  
ENCO  
Energie-  
Consulting  
AG



# How to nationally implement e5



## Contact

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We love energy efficiency