

Pellets for Smart Buildings Threat or Opportunity?



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OÖ Energiesparverband/Cleantech-Cluster

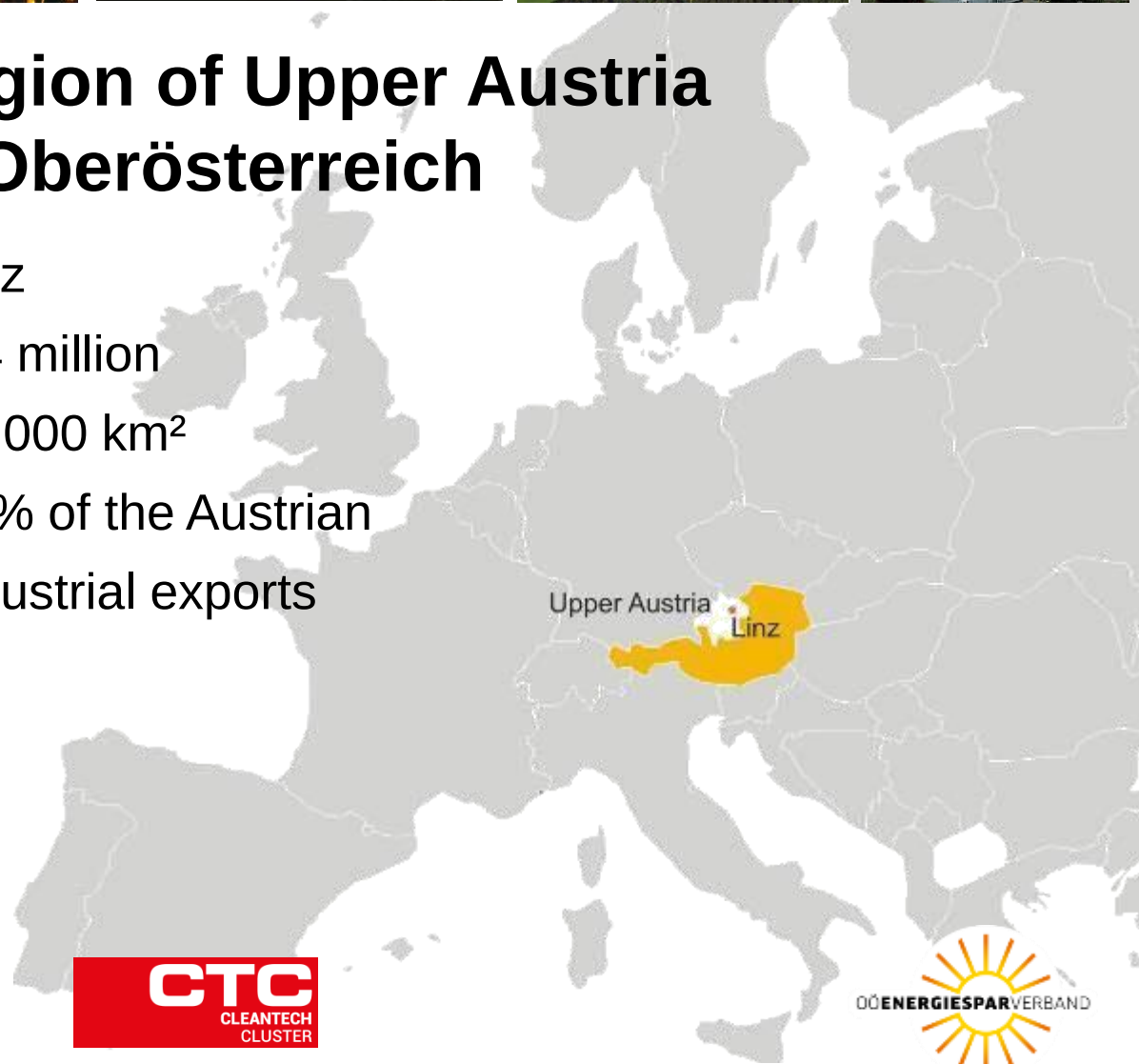
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The Region of Upper Austria Oberösterreich

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

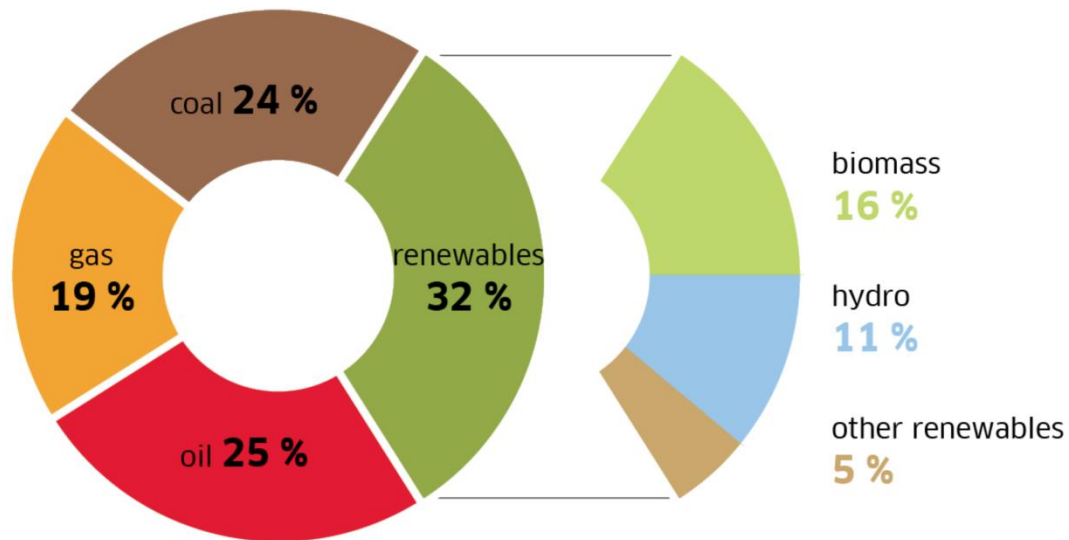
**promotes
energy
efficiency and
renewable
energy**

**provides
services to
households,
businesses &
municipalities**

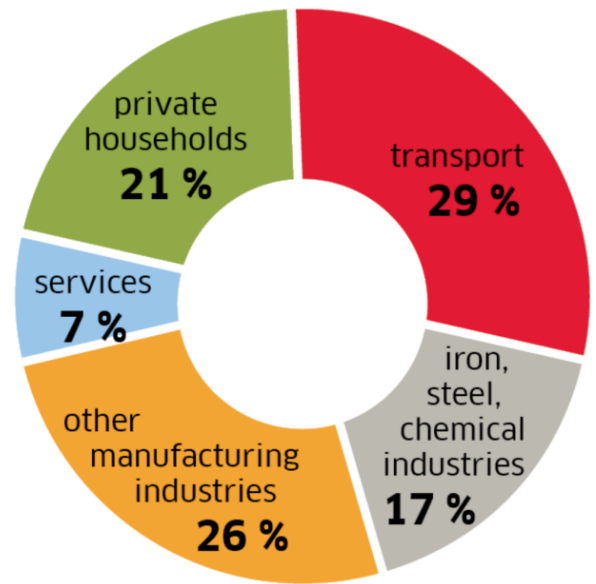
**develops &
implements
policies &
manages
programmes**



Energy production and consumption Upper Austria



Gross domestic energy consumption by energy source,
2014, Source: Energiebericht des Landes OÖ

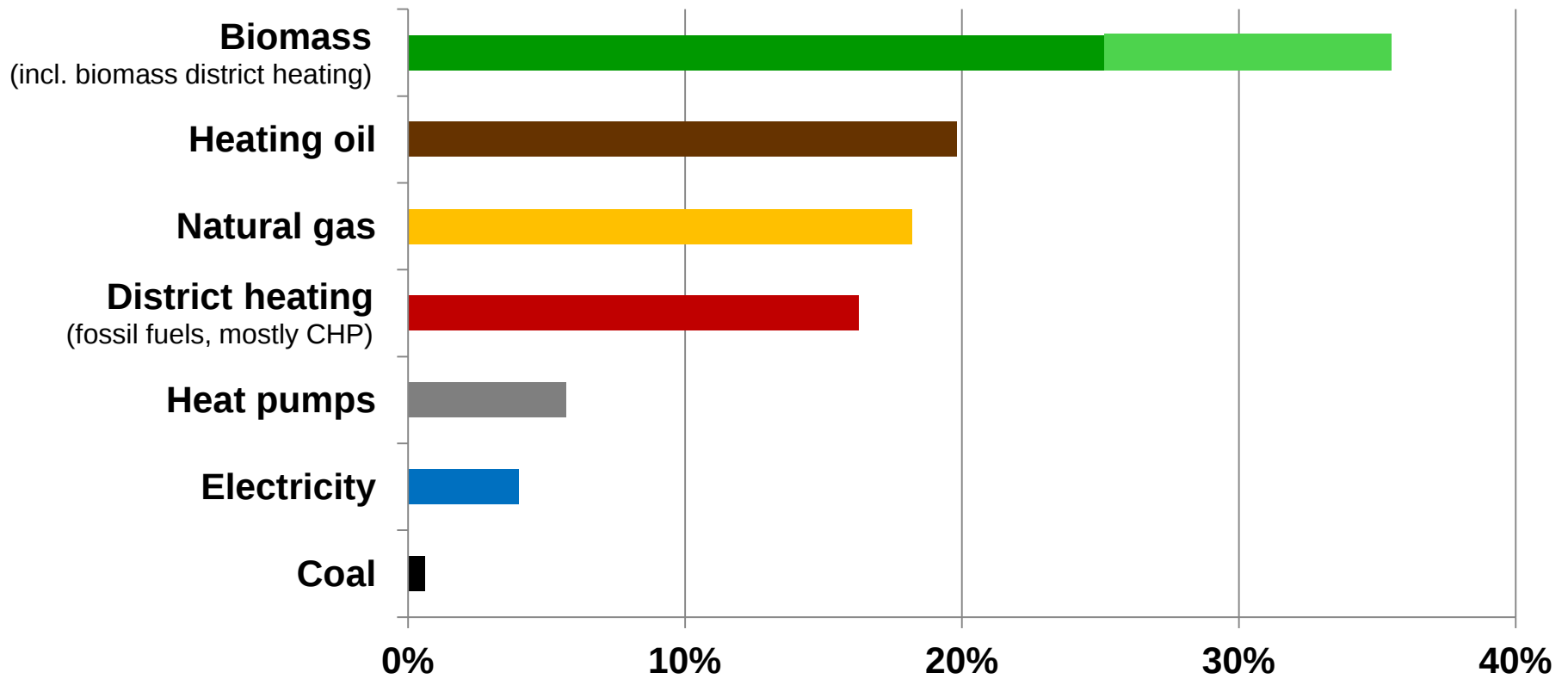


Sectoral final energy consumption, 2014
Source: Energiebericht des Landes OÖ

Heating in Upper Austria

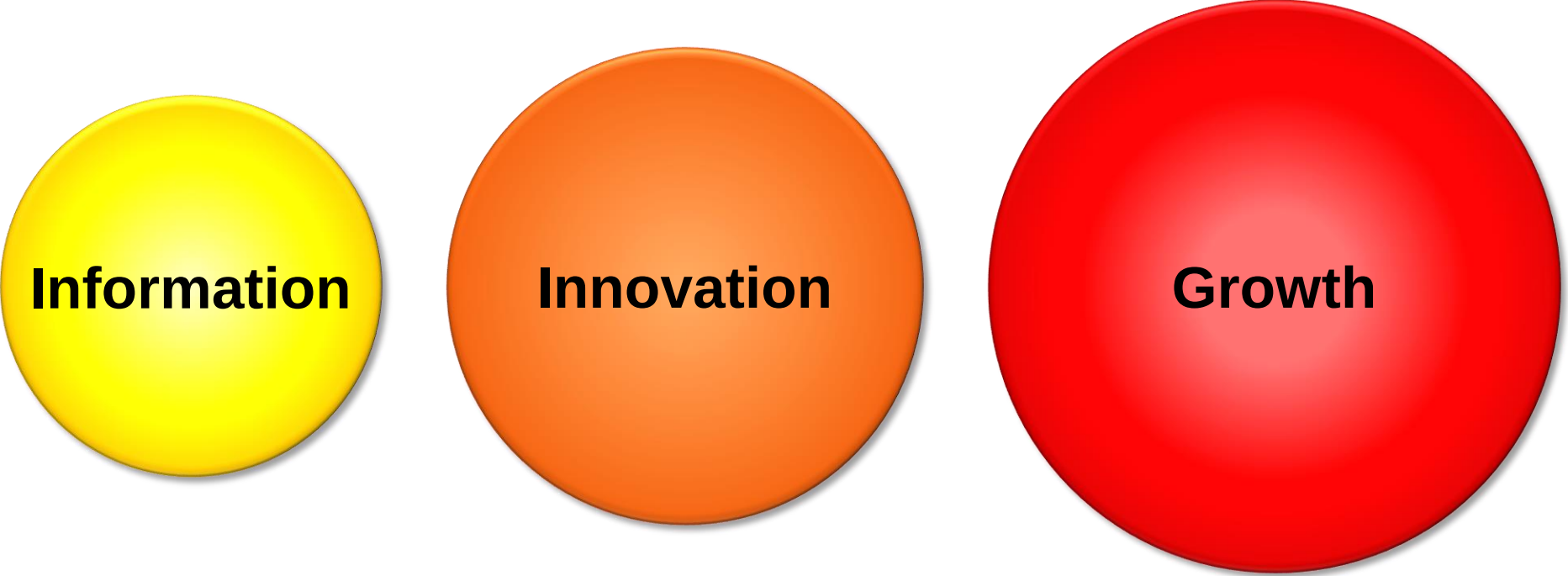
% of all dwellings

52,500 automatic biomass systems installed:
28,500 pellets, 24,000 wood chips,
350 biomass district heating plants



The Cleantech-Cluster (CTC)

The network of energy & environmental technology companies in Upper Austria



The diagram consists of three overlapping circles arranged horizontally. The leftmost circle is yellow and contains the word 'Information'. The middle circle is orange and contains the word 'Innovation'. The rightmost circle is red and contains the word 'Growth'. The circles overlap such that the orange circle is partially behind the yellow one, and the red circle is partially behind the orange one.

Information

Innovation

Growth

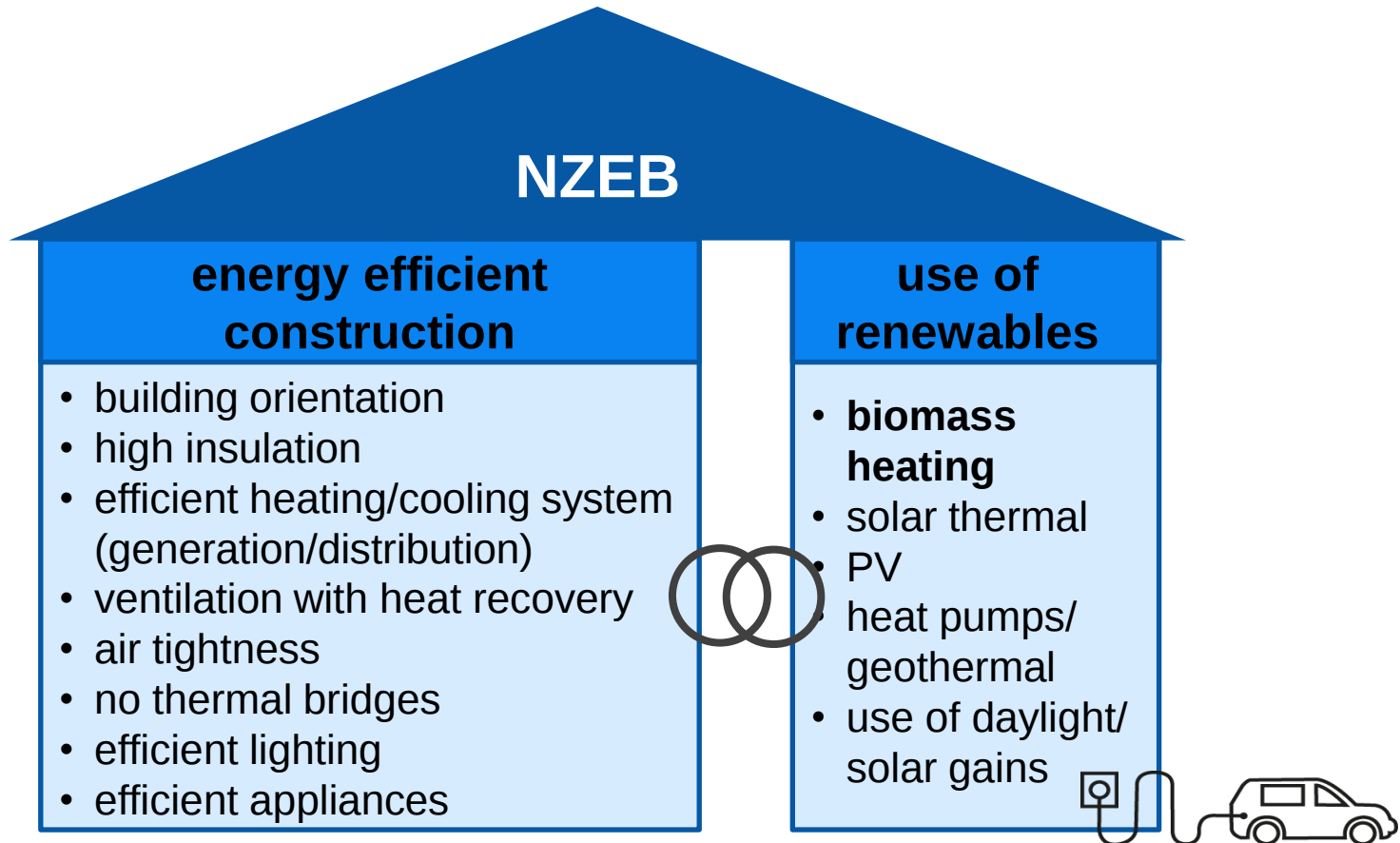
The building sector in Europe is changing

**NEARLY ZERO
ENERGY
BUILDINGS
(NZEB)**

**?
=**

**SMART
BUILDINGS**

Nearly Zero Energy Buildings (NZEBs) combine energy efficiency and renewables



- by 2020, all new buildings in the EU must be NZEBs (public buildings: 2018)
- progress in Members varies strongly but the overall direction is clear!

Smart Buildings

The value proposition - the "promise"

Energy efficiency

Convenience

Safety

**SMART
BUILDINGS**

intelligence

ICT

interaction with
occupants and the
grid

building
automation
and control

e-mobility

From NZEBs to Smart Buildings: Our vision

FROM DATA TO ACTION

