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ODYSSEE-MURE

**First meeting of the project “*ODYSSEE-MURE,  
Monitoring EU Energy Efficiency First Principle and Policy  
Implementation*”  
16-18 December 2019, Berlin, Germany**

Session 1: Energy efficiency policies in Germany  
A View from the ODYSSEE Database

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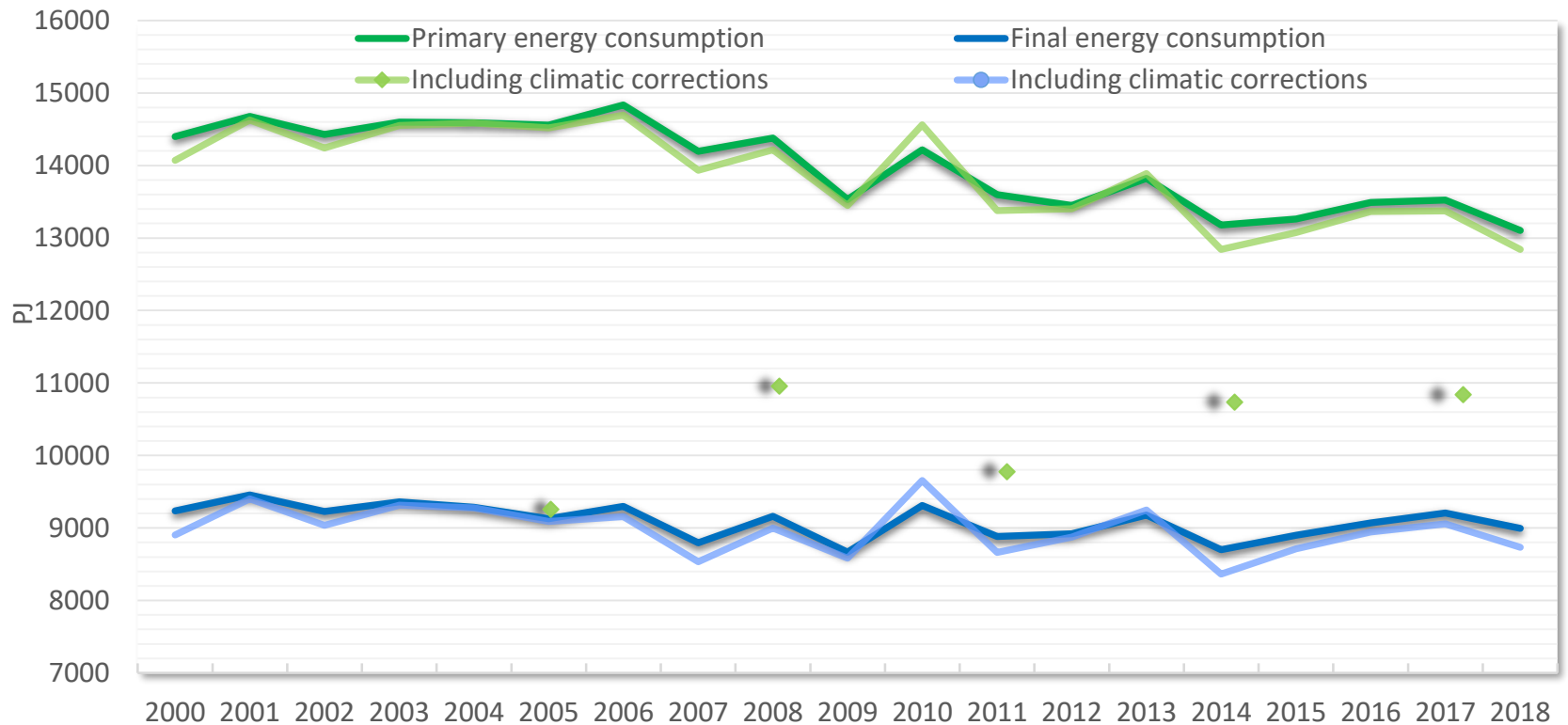
# Outline

- Overview indicators from the ODYSSEE database
- Sectoral indicators
- Conclusions

# Overview

## Primary and final consumption

- Primary energy consumption decreased (-9%) while final energy consumption stayed relatively constant (-3%)



# Decomposition

Primary consumption > **Impact of power sector**

ODYSSEE-MURE

VARIATION PRIMARY ENERGY CONSUMPTION  
GERMANY  
MTOE (2000-2016)

VARIATION ENERGY INTENSITY

EXCEL

## DECOMPOSITION TOOL

Country:

Germany

Sector:

Primary

Unit:

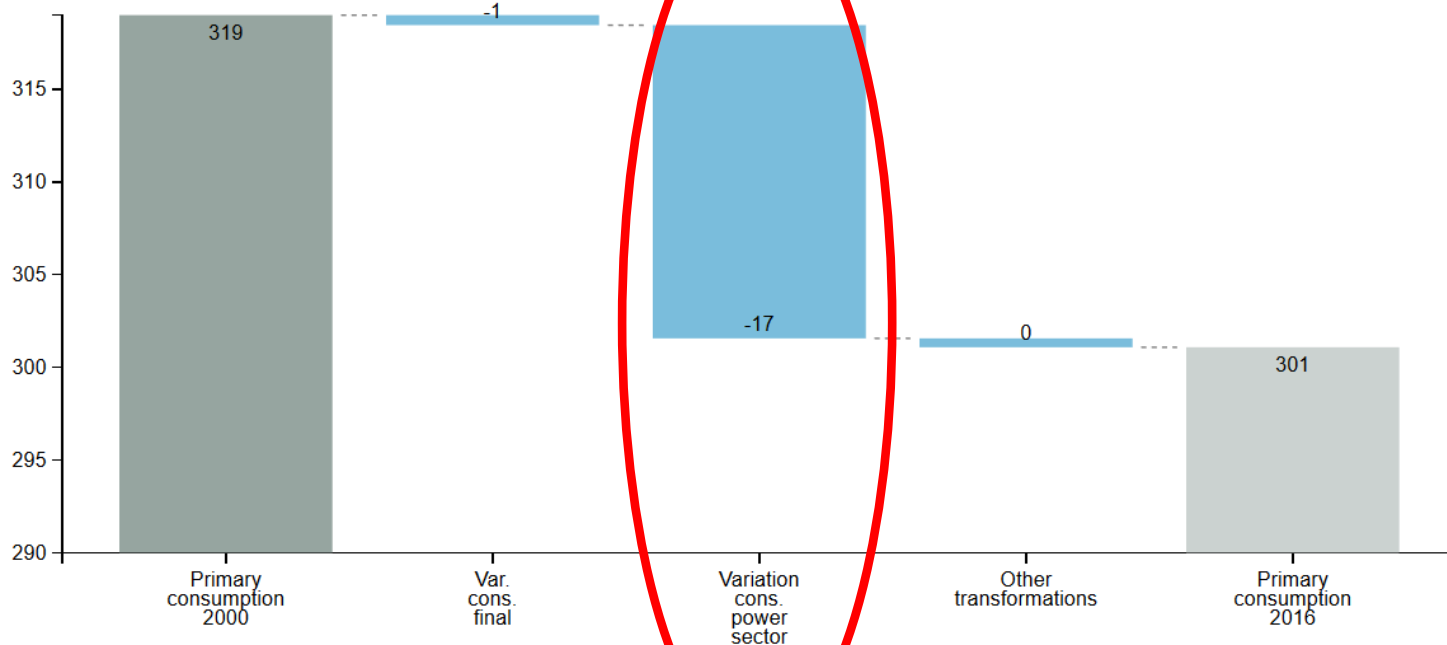
Mtoe

Period:

2000 - 2016

Graph:

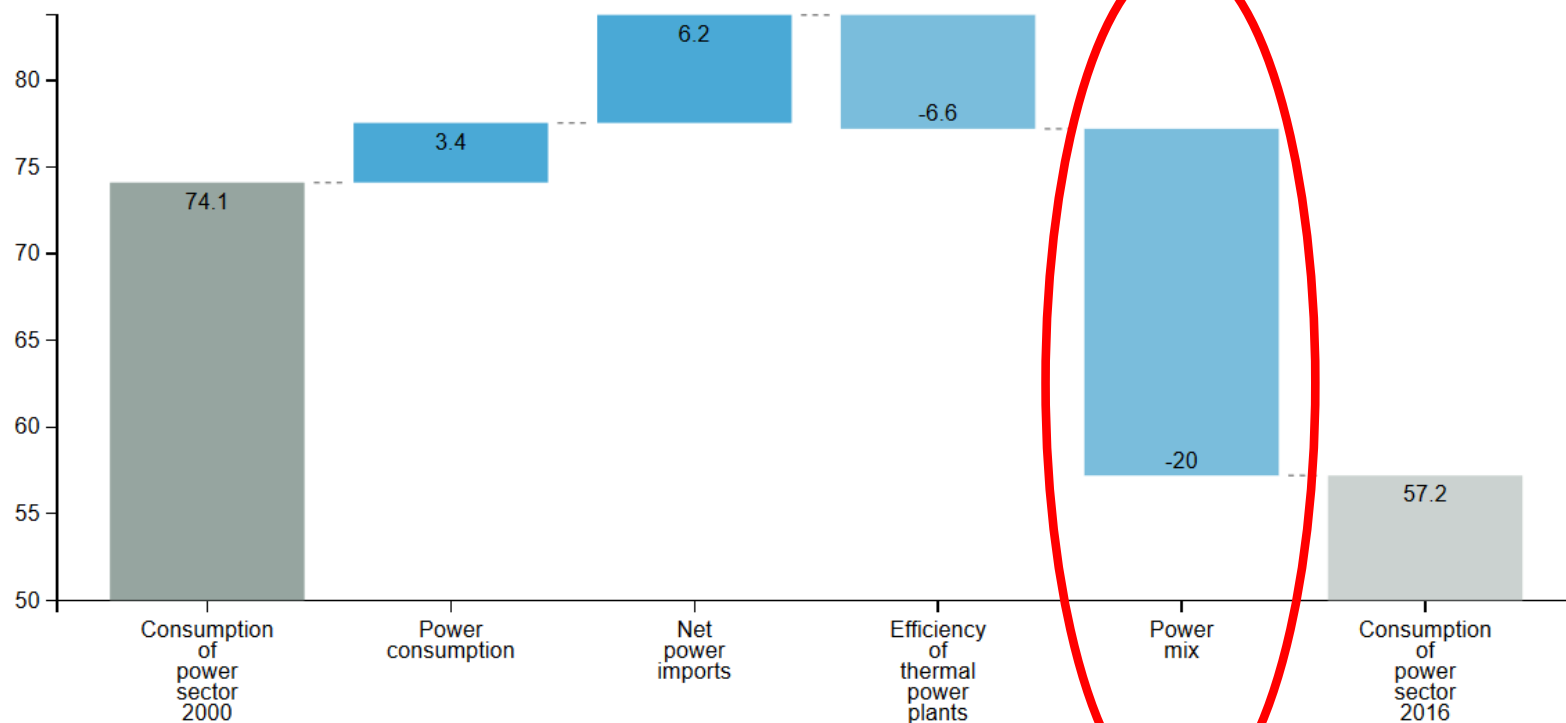
Waterfall



# Decomposition

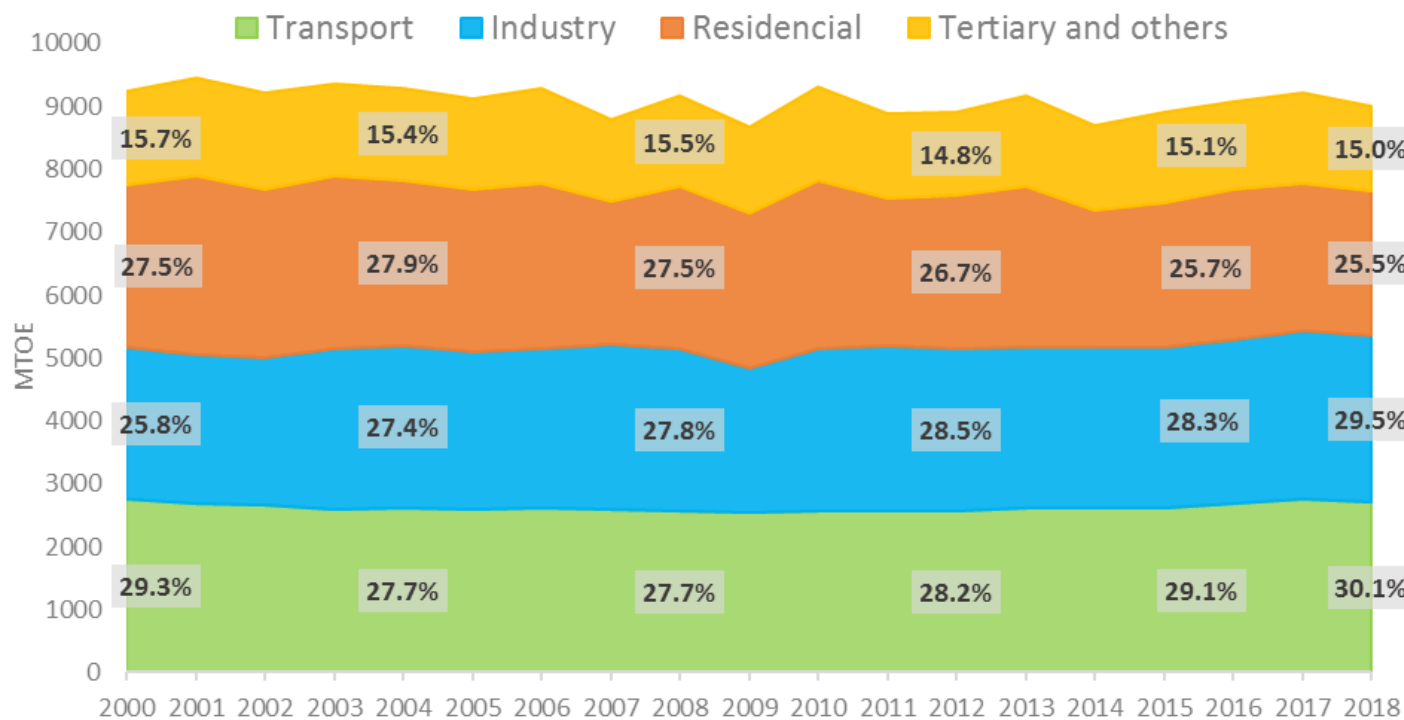
Power sector > **Impact of renewables**

**VARIATION POWER SECTOR CONSUMPTION  
GERMANY  
MTOE (2000-2016)**



# Overview

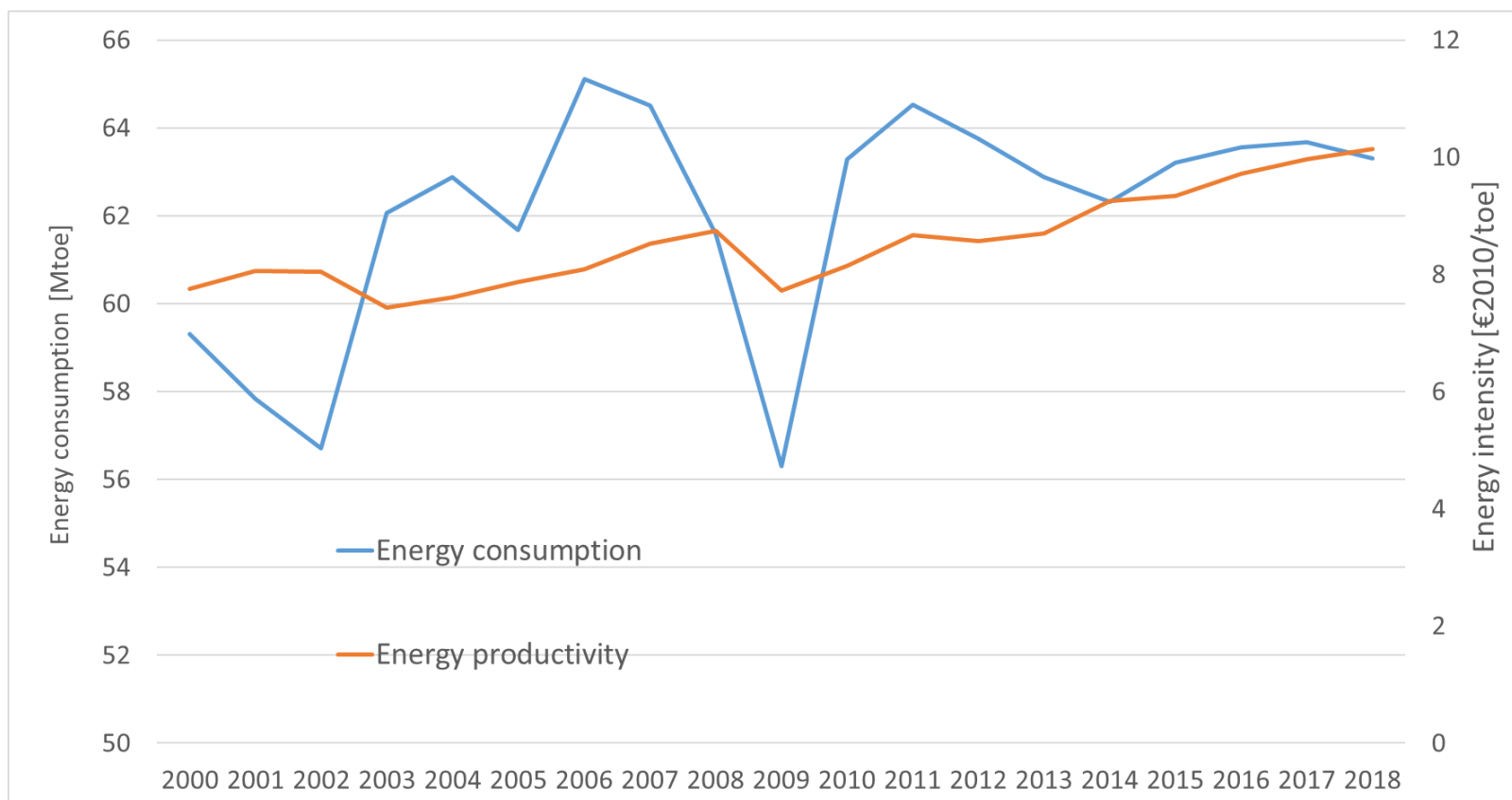
## Final consumption per sector



- TFEF reduced by only 3%
- Transport slightly decreasing its TFEF (-2%)
- -11% in residential energy consumption
- Industry's FEC increased by 9%
- Services -9%

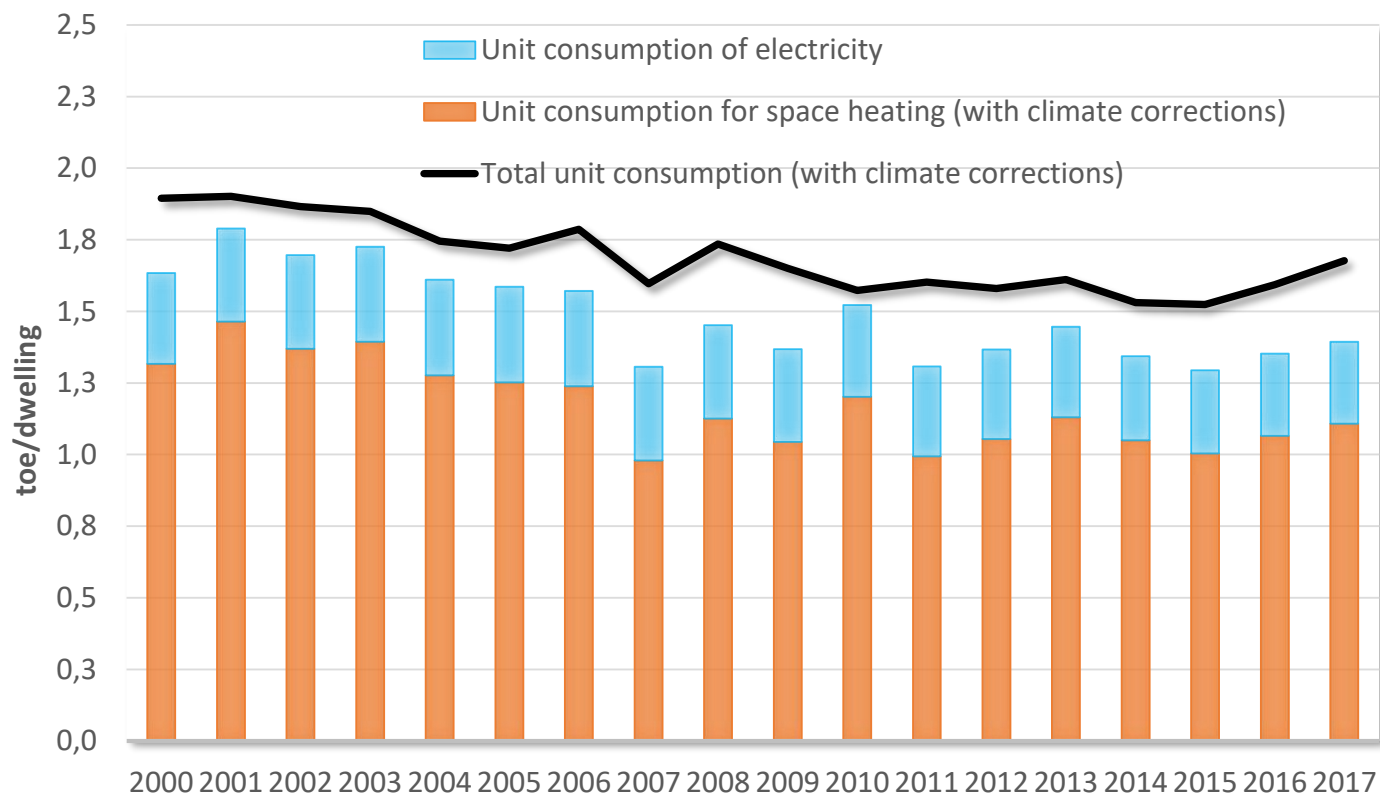
# Industry

- Energy consumption in industry increased compared to 2000
- Energy productivity in industry increased steadily in the same period



# Households

## Specific energy consumption

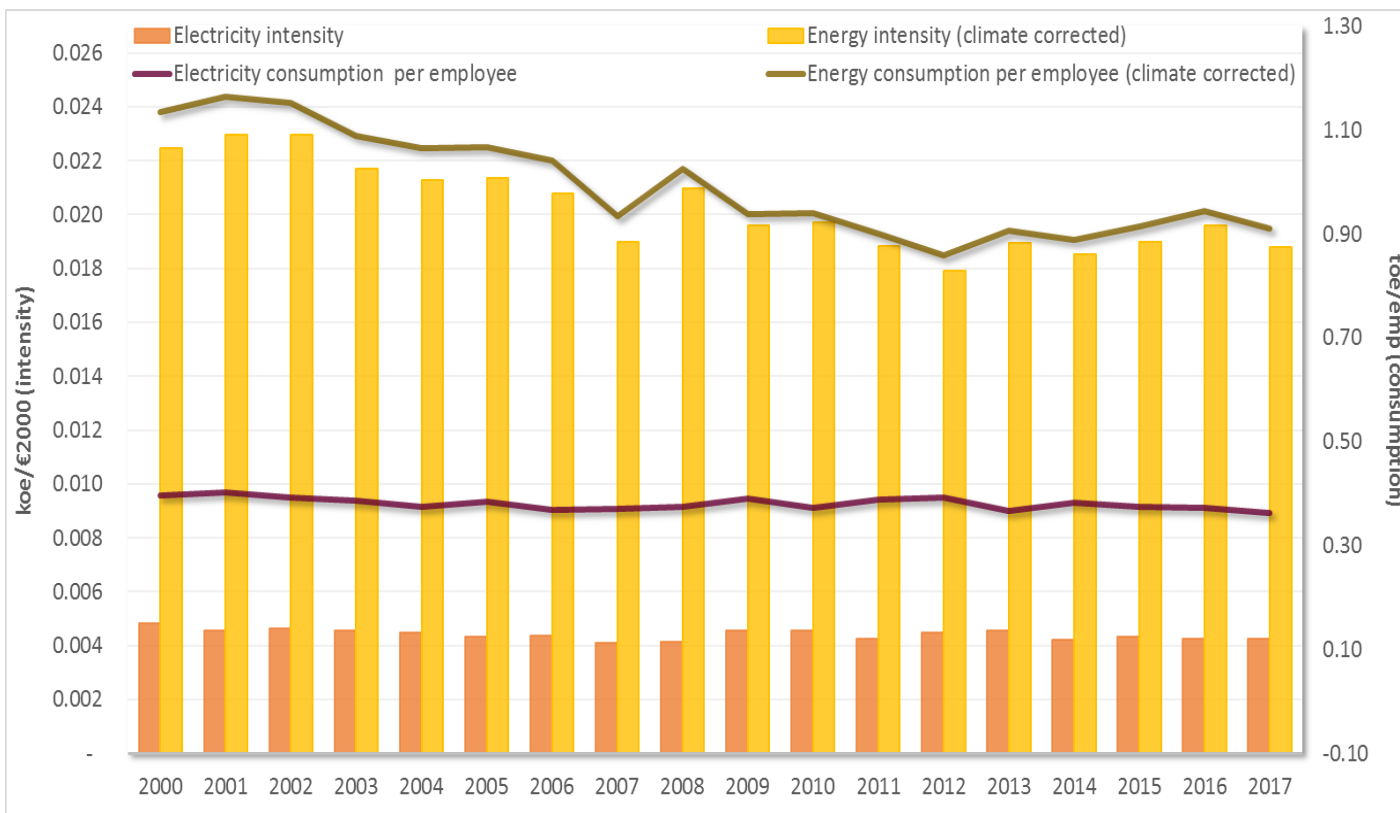


- Energy consumption per dwelling only slightly decreased
- Consumption for space heating decreased compared to 2000
- Dwelling size increased (+9%)



# Services

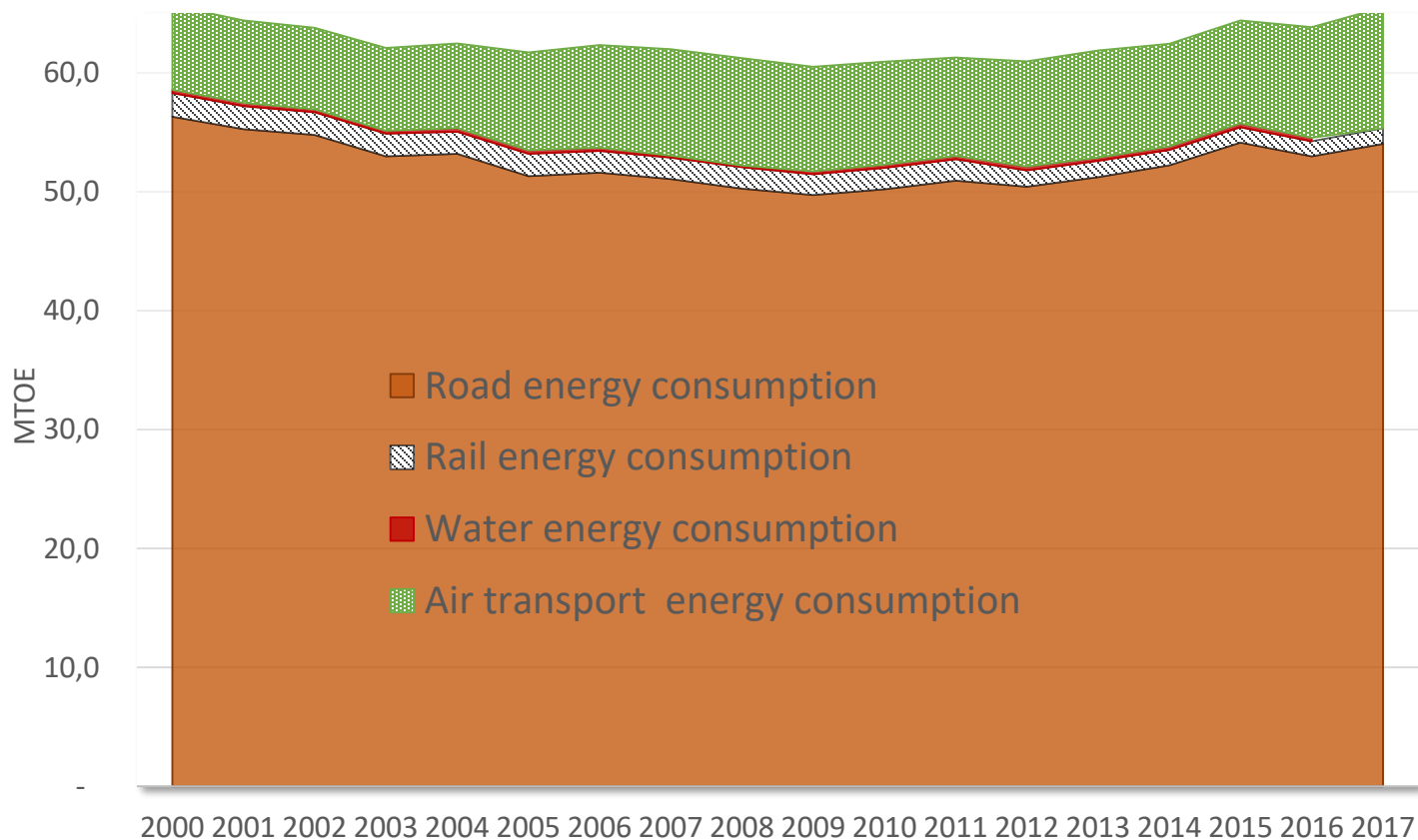
## Specific energy consumption



- Energy consumption per employee strongly decreased (-19%)
- Energy intensity -12%
- Electricity consumption stayed almost constant (per employee and intensity)

# Transport

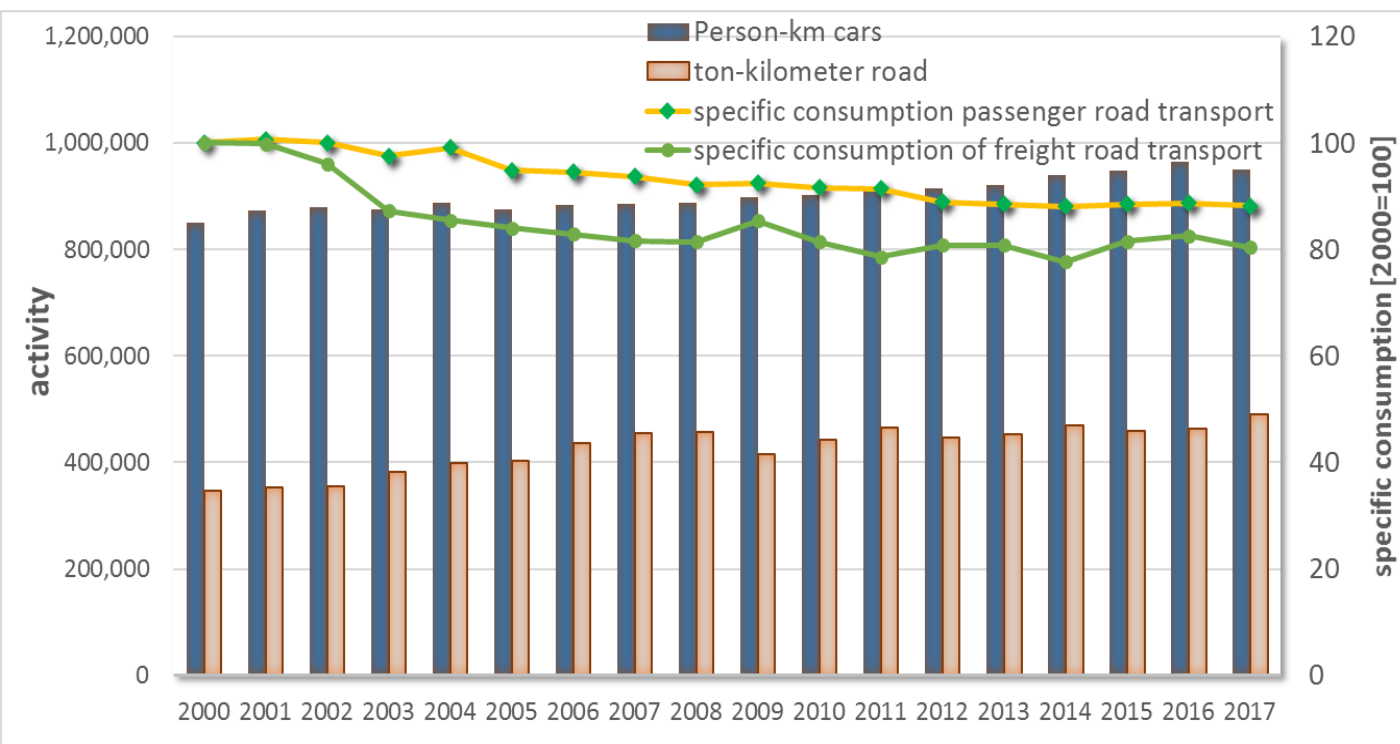
## Energy consumption by mode



- Energy consumption in 2017 again on the level of 2000
- Vast share of energy consumption for road transport
- Increase in air transport
- “SUV Trend”

# Transport

## Specific consumption by mode



- Energy efficiency improvements in both freight and passenger transport
- Activity increased as well for both compensating most of the effect of efficiency

# Conclusions

- Energy efficiency increased in all sectors more or less rapidly, but
  - Activity: Grew as well in most sector compensating most of the effect of efficiency
  - Comfort effects: Larger homes reduced the effects of energy efficiency in households
- More sufficiency measures might help to counteract these trends in households and passenger traffic
- Economic activity can only be counteracted by stronger increases in energy efficiency