



ODYSSEE-MURE National Workshop Switzerland

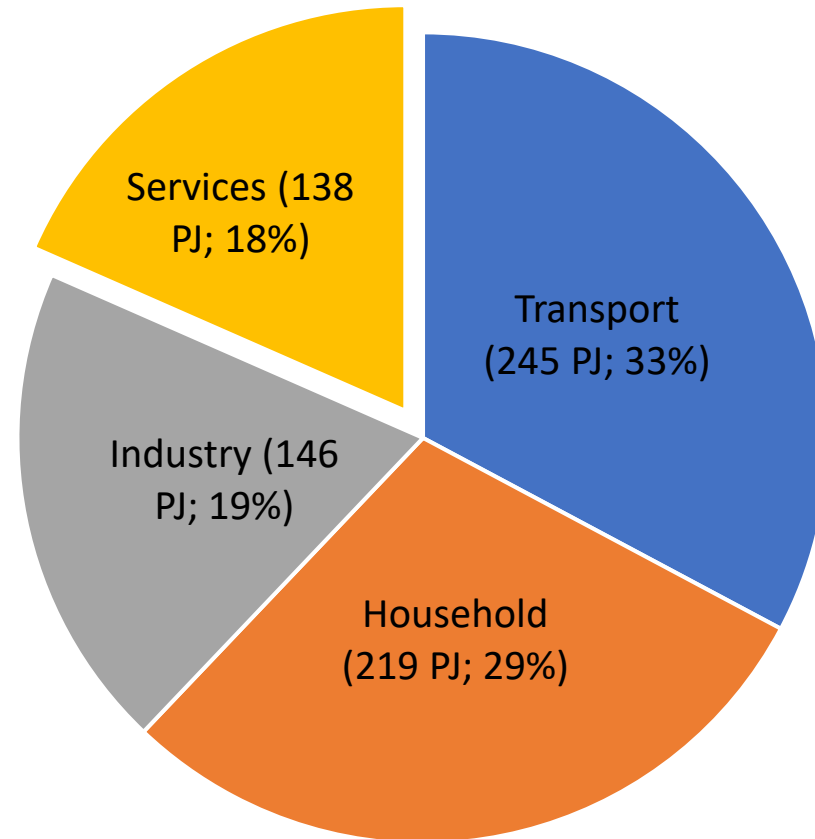
*Energy efficiency indicators
for the service sector*



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19th November 2021

Service sector



TFE by end-use sectors in Switzerland (SFOE, 2020)

Introduction: Service ODEX

*Service ODEX:
Aggregate indicator based
on **EE trends for electricity
and fuel** demand based on
their share in TFE*

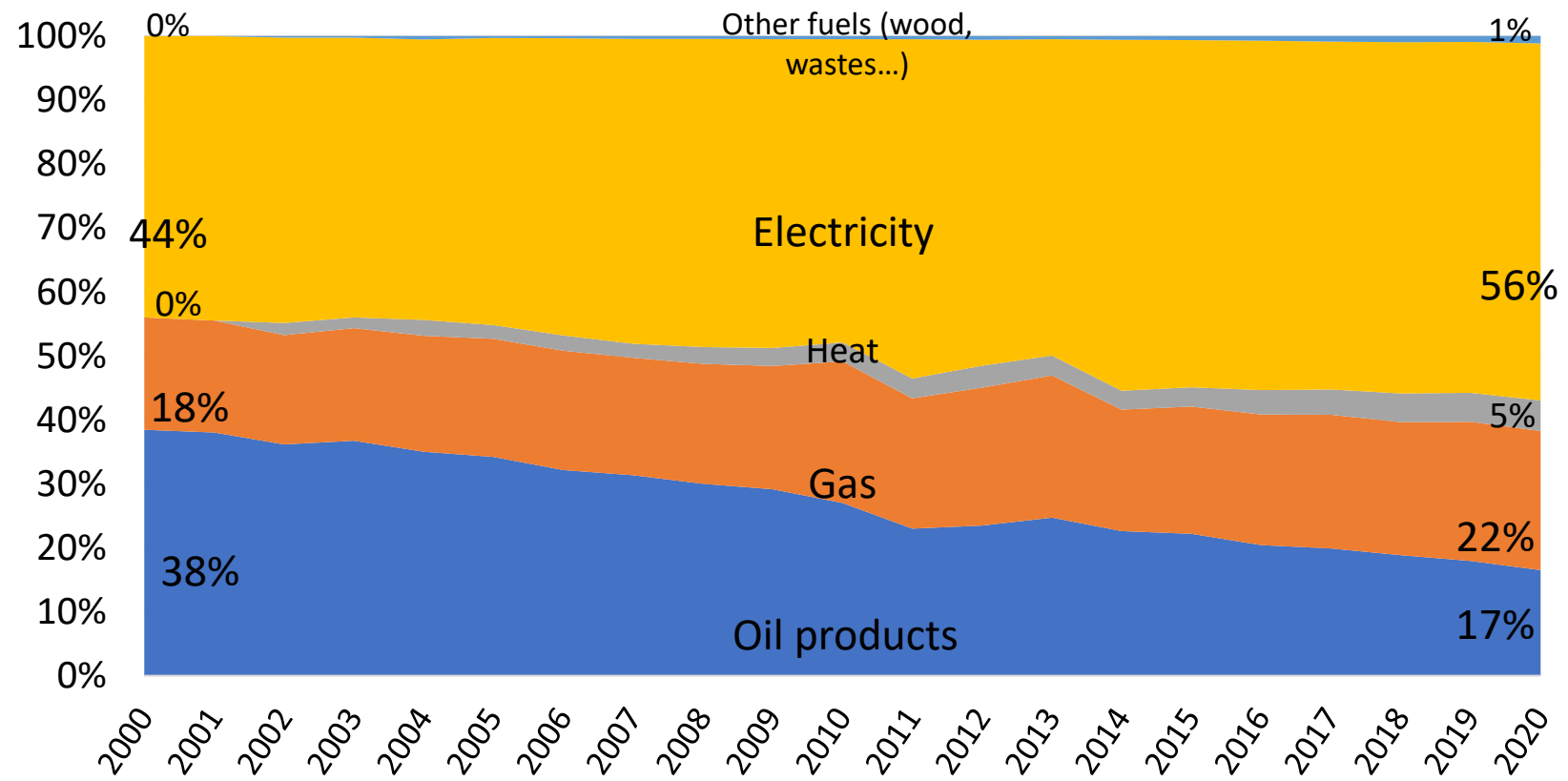
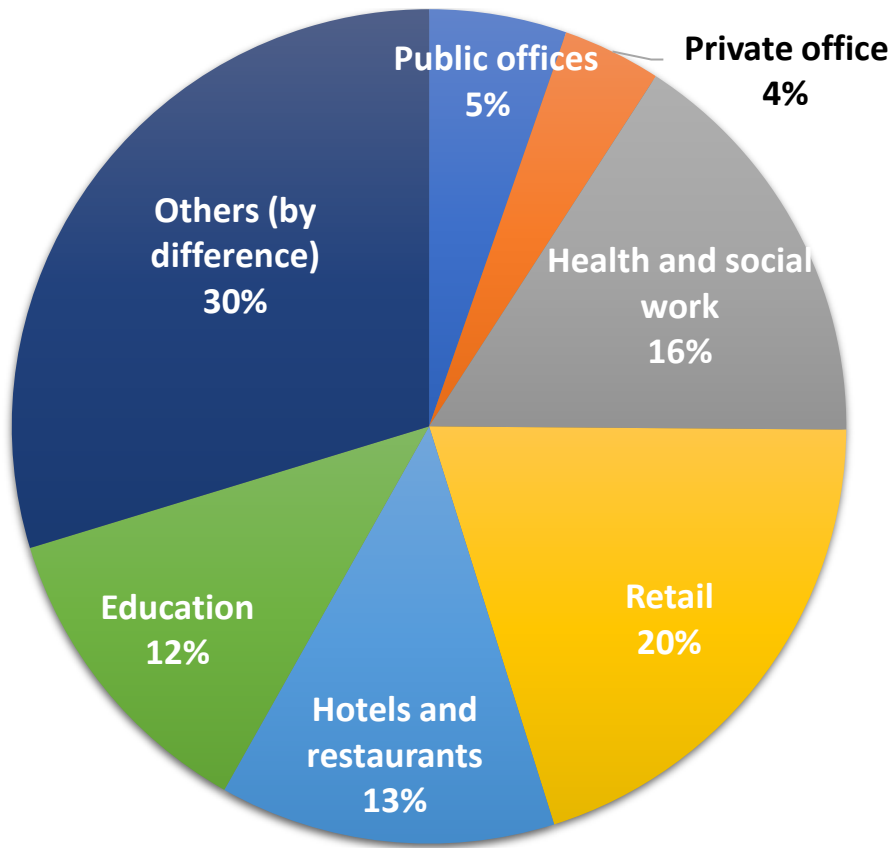
*The EE trends:
Aggregate **UC indices for electricity and
fuel** respectively for individual subsectors
based on each one's **share in TFE***

*The unit consumption (UC):
Estimated as the ratio of the **subsector's electricity and fuel demand
and its number of employees***

Subsectors:

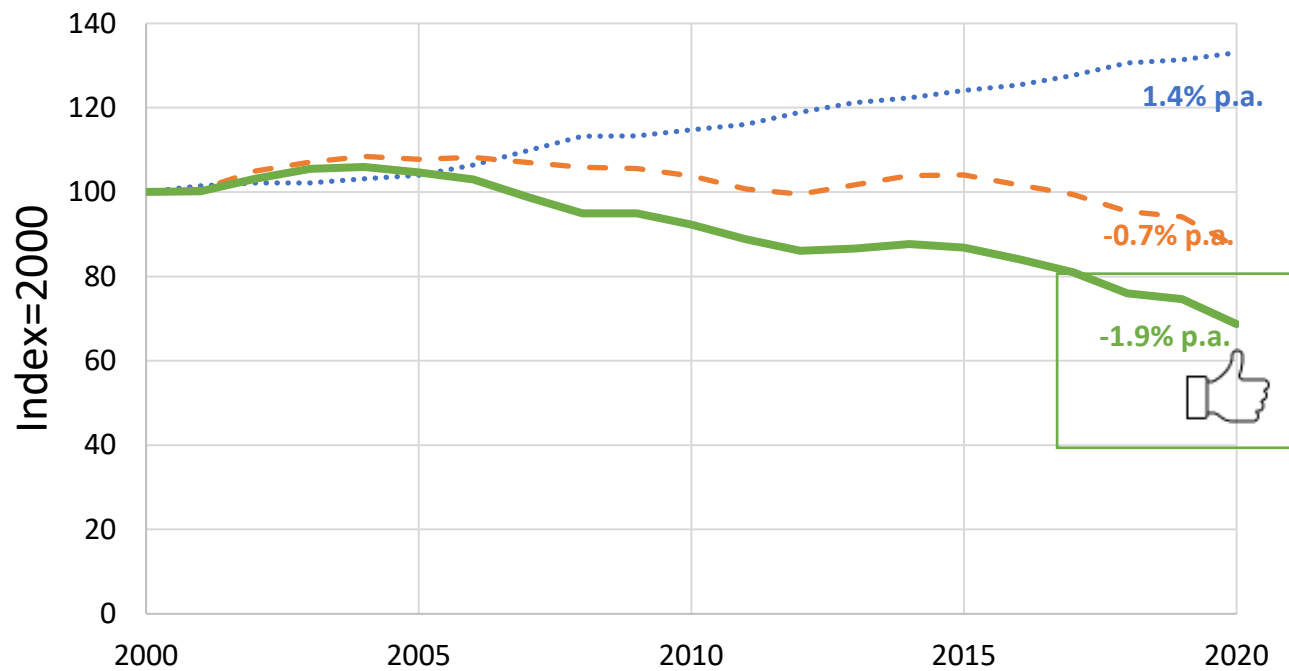
- Public administration and government services building
- Private offices
- Hotels & restaurants
- Hospitals
- Wholesale and retail trade services building and
- Education buildings

Service: Overview

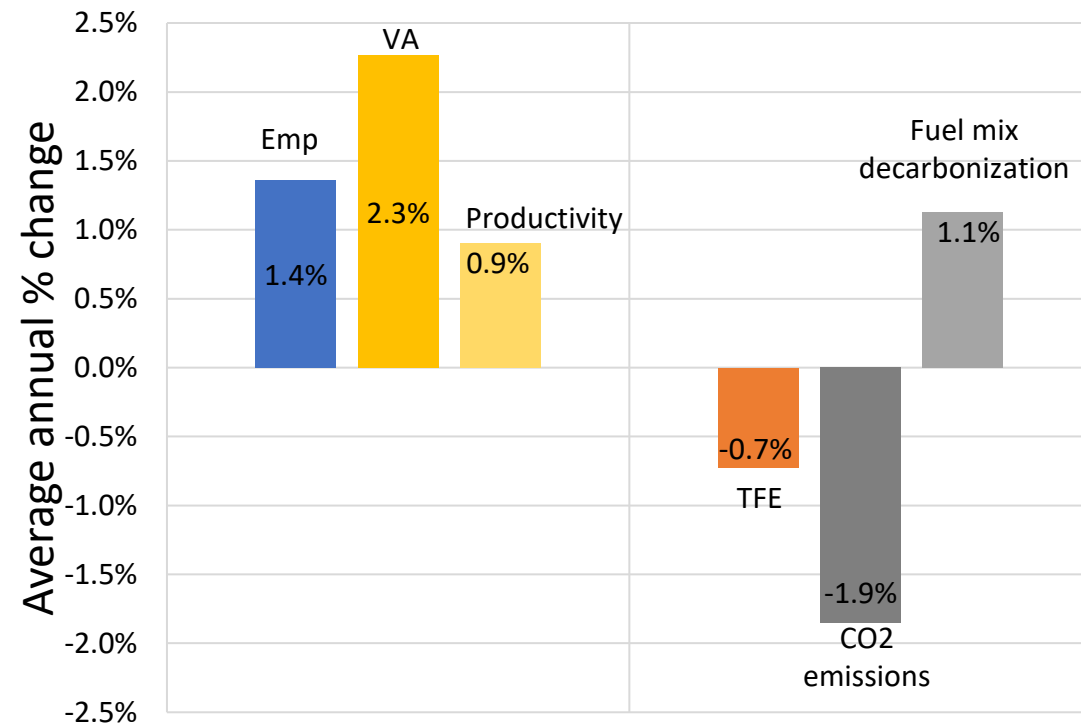


Evolution of energy mix (Source: SFOE, 2020)

Total final energy, employees index and ODEX

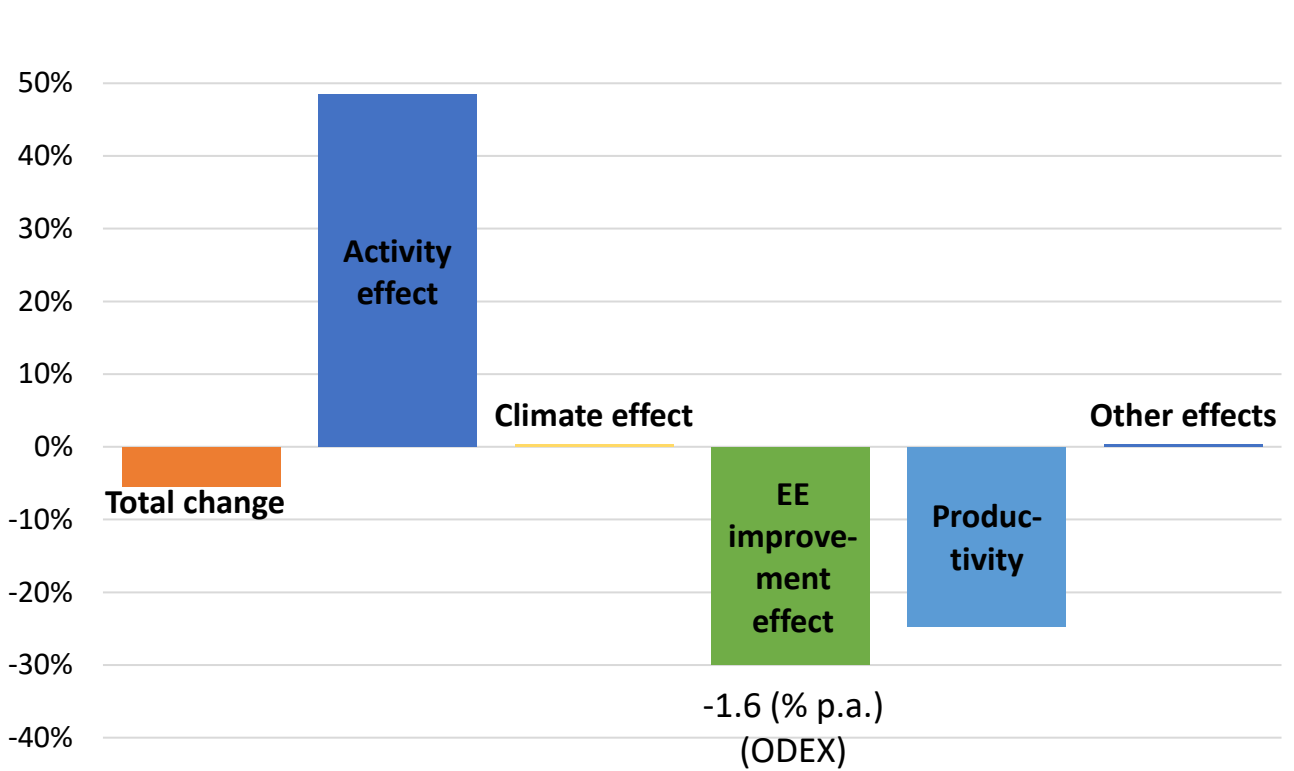


- Employees index
- - - Total final energy index corrected for climate
- ODEX (observed)

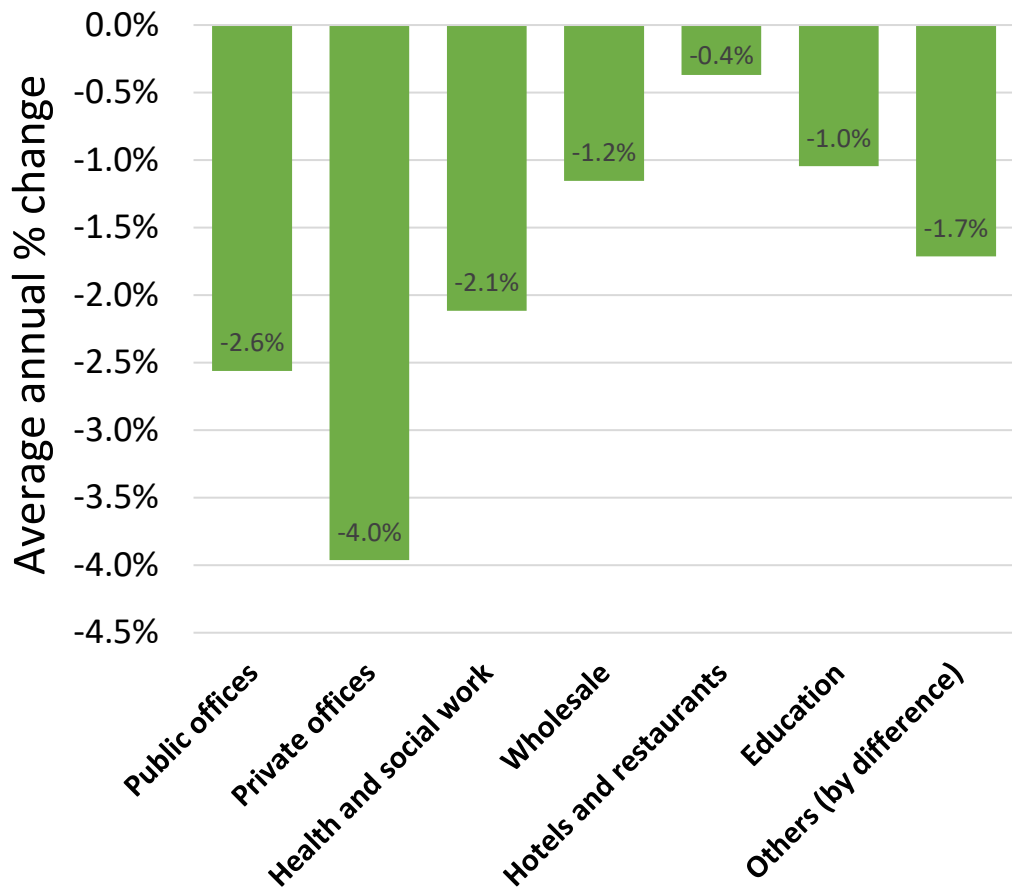


Decomposition analysis – Service sector (2000-2019)

TFE change (2000-2019)

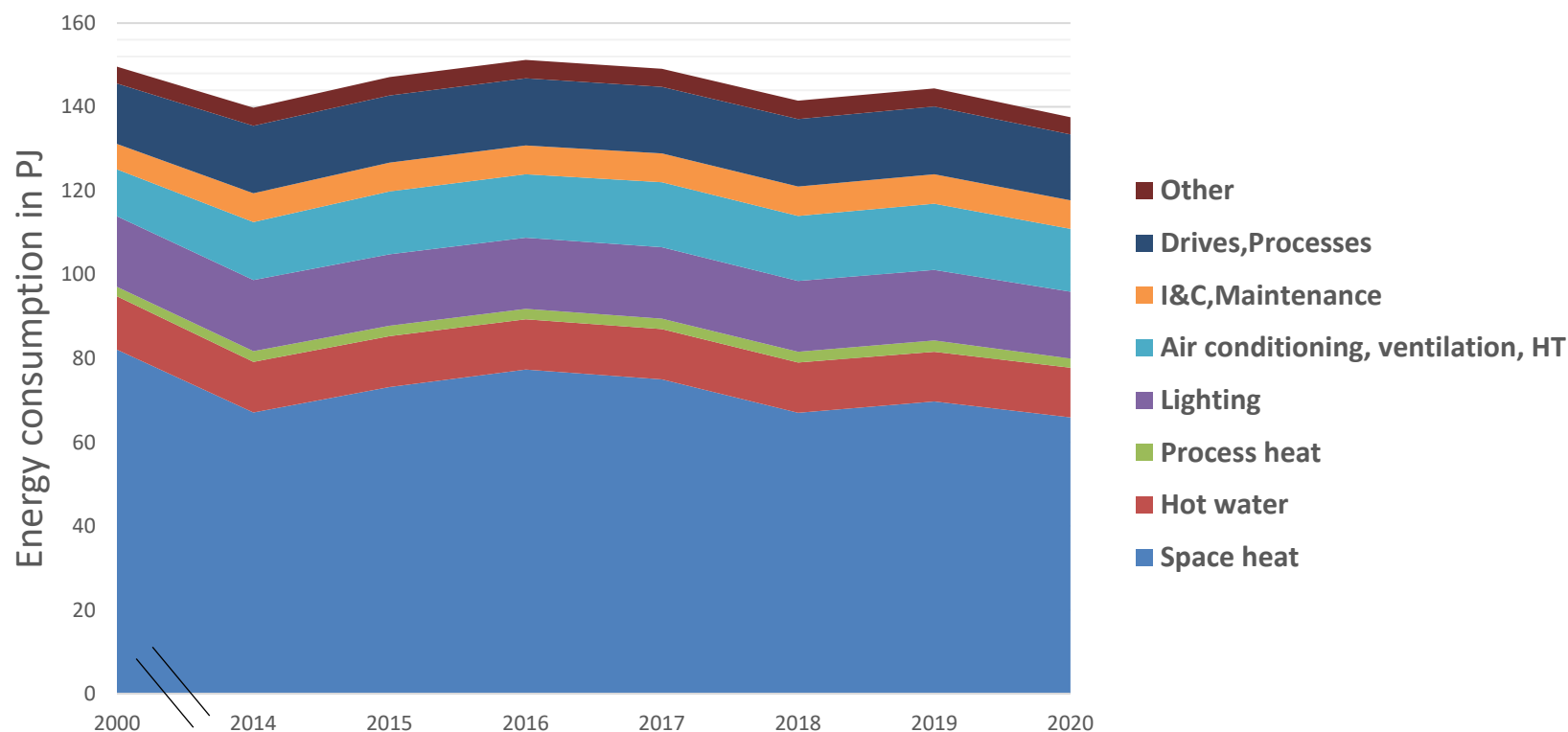


EE improvement by subsector



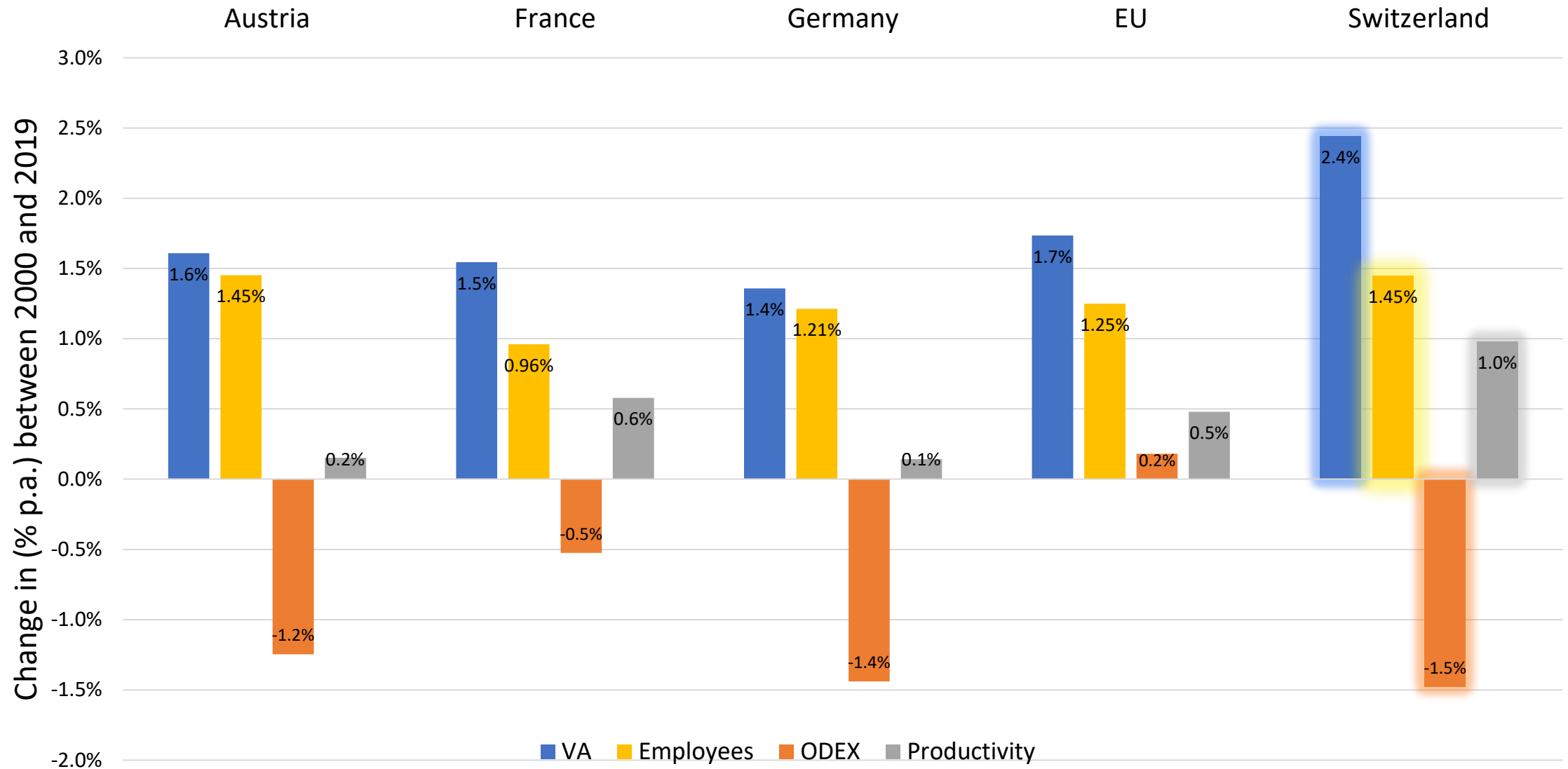
TFE consumption by end use in the service sector until 2020

Final energy consumption in service sector by end use from 2000 to 2020, in PJ, incl. agriculture



- TFE in service sector decreased by 8.4 PJ (-6.1 %; excluding agriculture).
- Strongest decrease for space heating (-16.2 PJ; -19.7 %).
- Strongest increase for
 - air conditioning, ventilation and building services (+3.8 PJ; +33.4 %)
 - information and communication (+0.7 PJ; +11.5 %)
 - drives and processes (+1.3 PJ; +9.1 %)

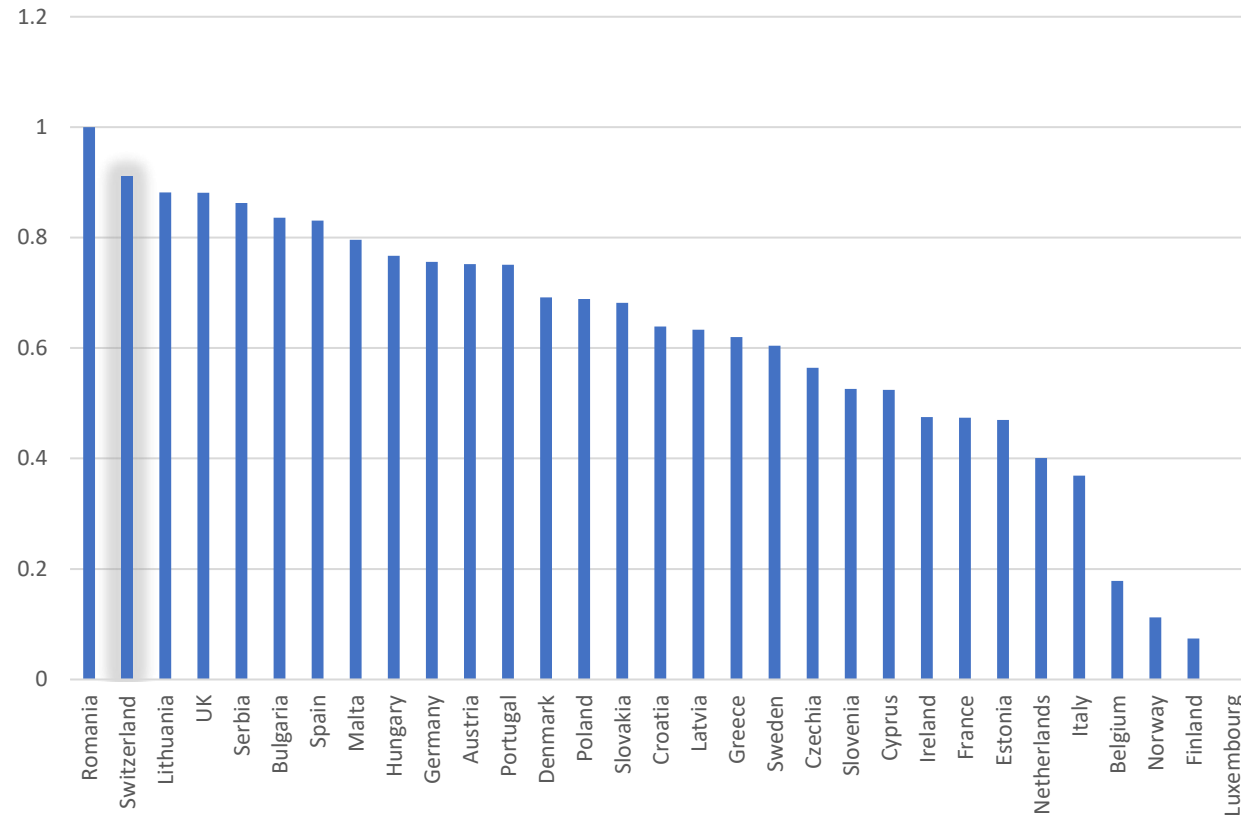
Country comparison (2000-2019)



Scoreboard

Level Scoreboard (2019)

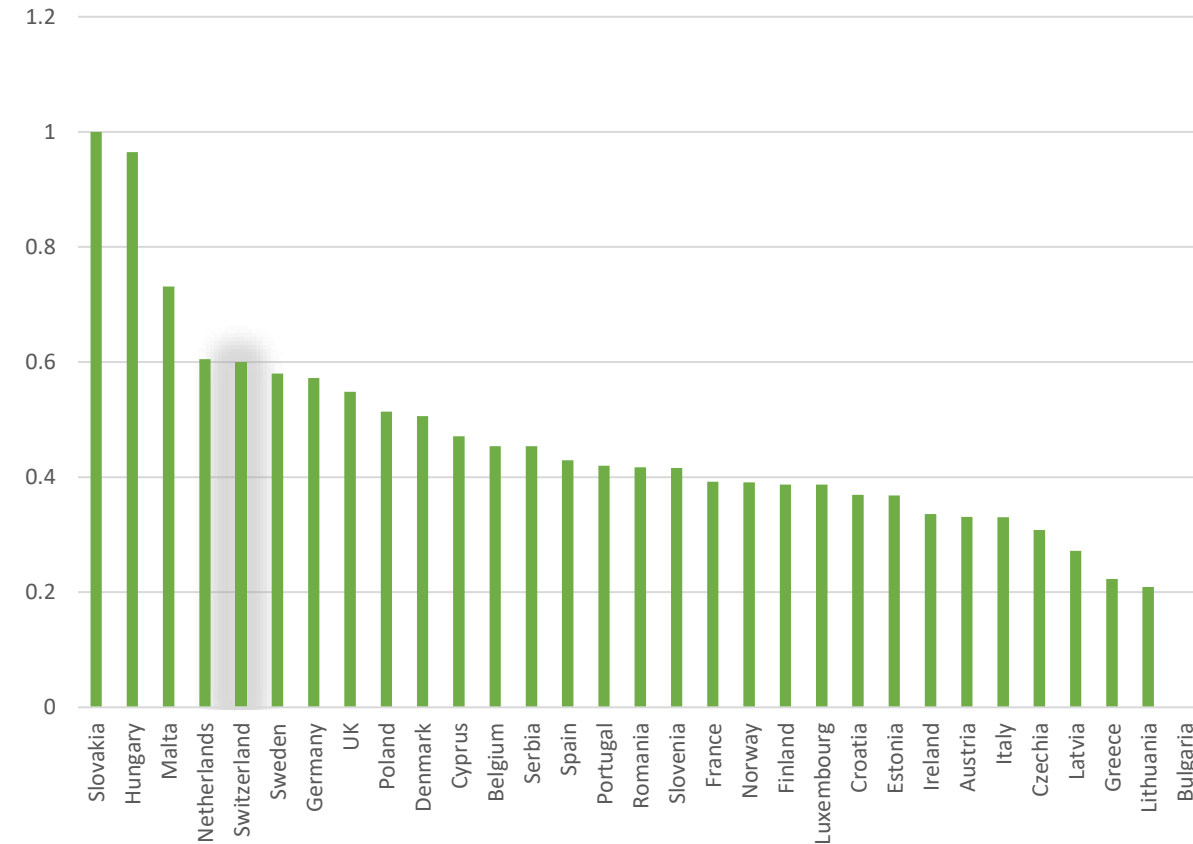
Level



2nd rank

Trend Scoreboard (2000-2019)

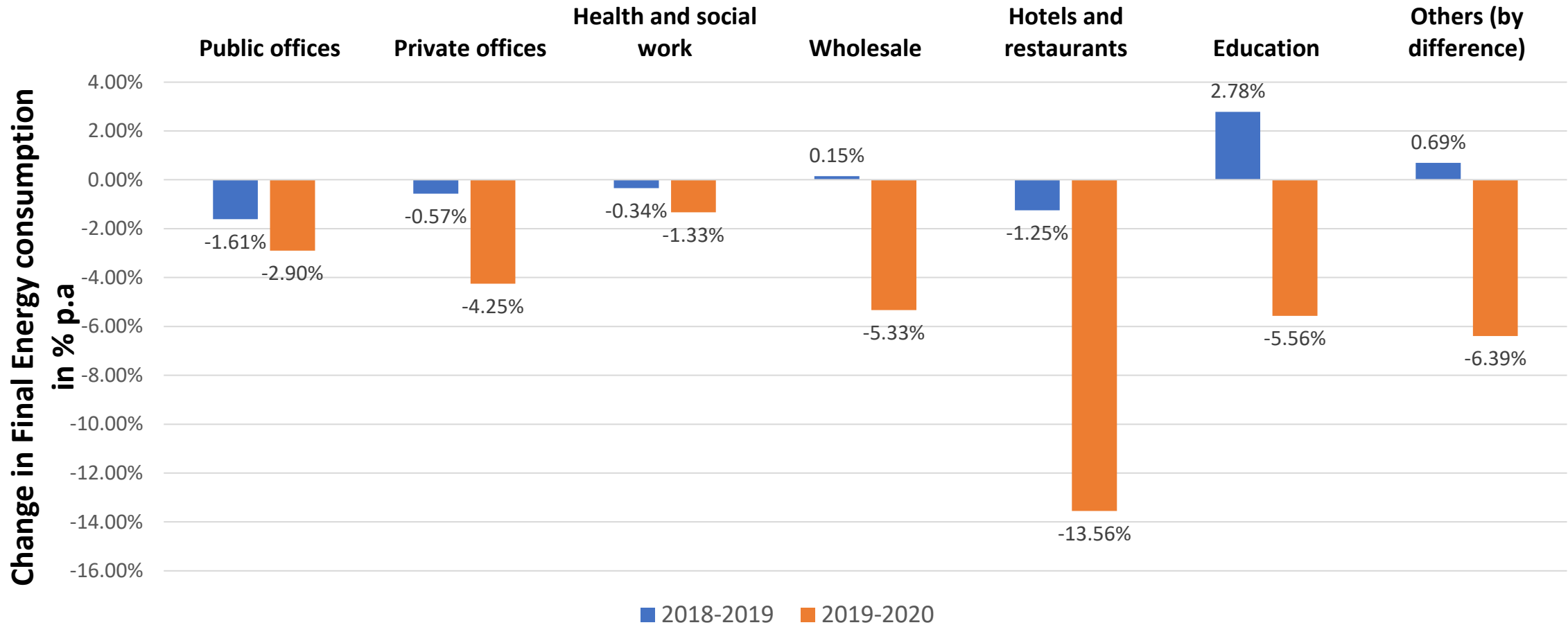
Trend



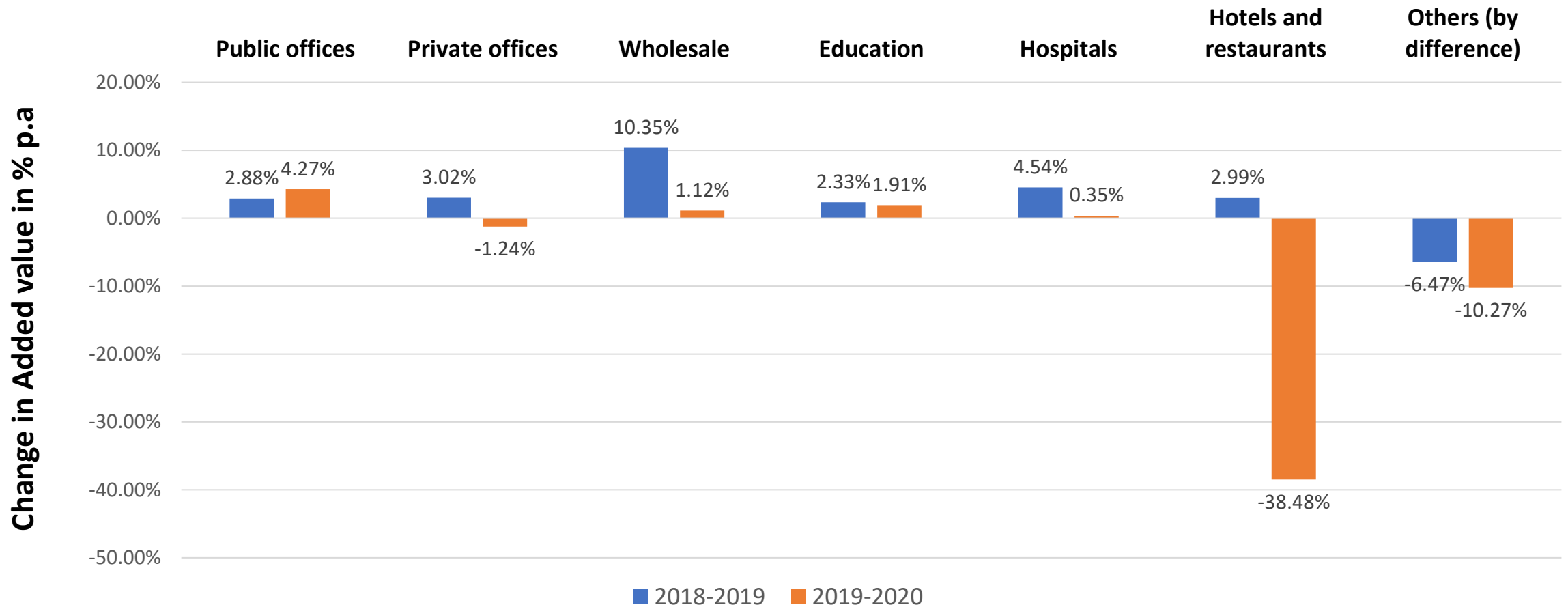
Combined : 1st

5th rank

Covid Effect



Covid Effect



Conclusions

Activity (1.4% p.a):

- Fastest growing among neighbouring countries and EU average (same as Austria)
- Would have increased the TFE by almost 50% from 2000 and 2019

EE improvement (1.5% p.a):

- Better than EU average and fastest among neighbouring countries (Austria, France and Germany)
- By subsector, Private-sector offices experienced the highest EE improvement rate, followed by public offices, then health and social work.

Scoreboard

- Level: Ranks 2nd after Romania
- Trend: Ranks 5th, very close to the Netherlands (4th)

Effect of Covid

- Very significant reduction in TFE and Value added of the restaurants and hotels sub-sector in 2020 due to the pandemic

Thank you !