

Energy Consumption and Carbon Footprint

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Sulingen

Lower Saxony



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Sulingen

Our School

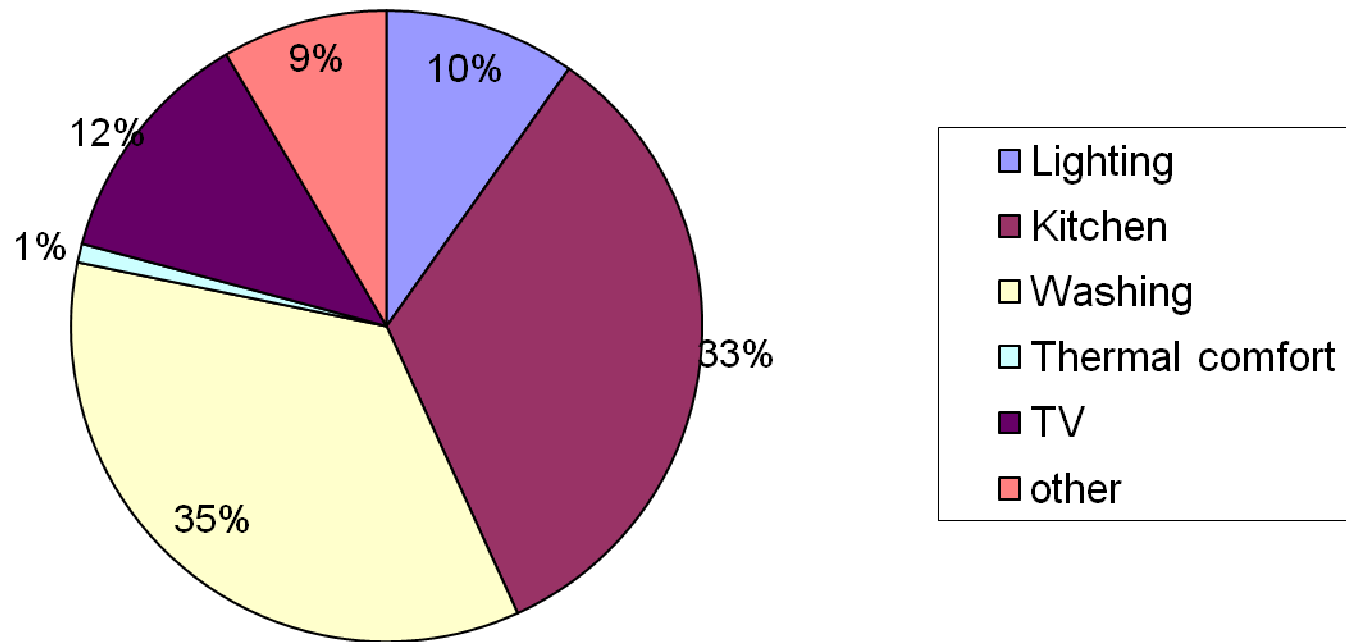


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Energy Consumption

**Electricity consumption
(mean 16 families)**

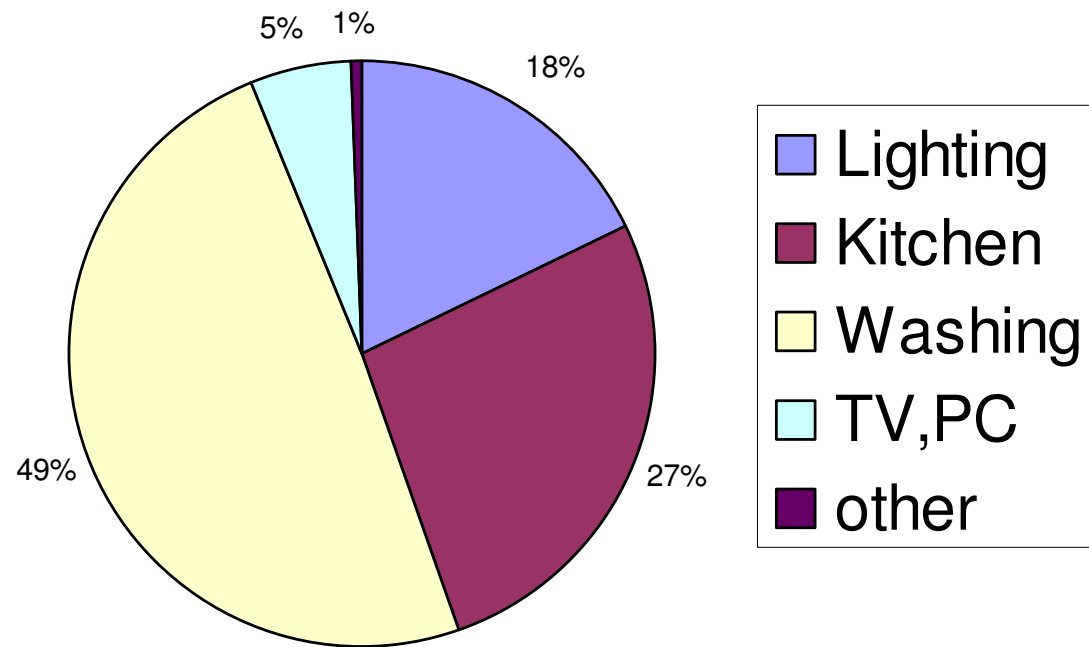


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Energy Consumption

Electricity consumption (4 persons per household)

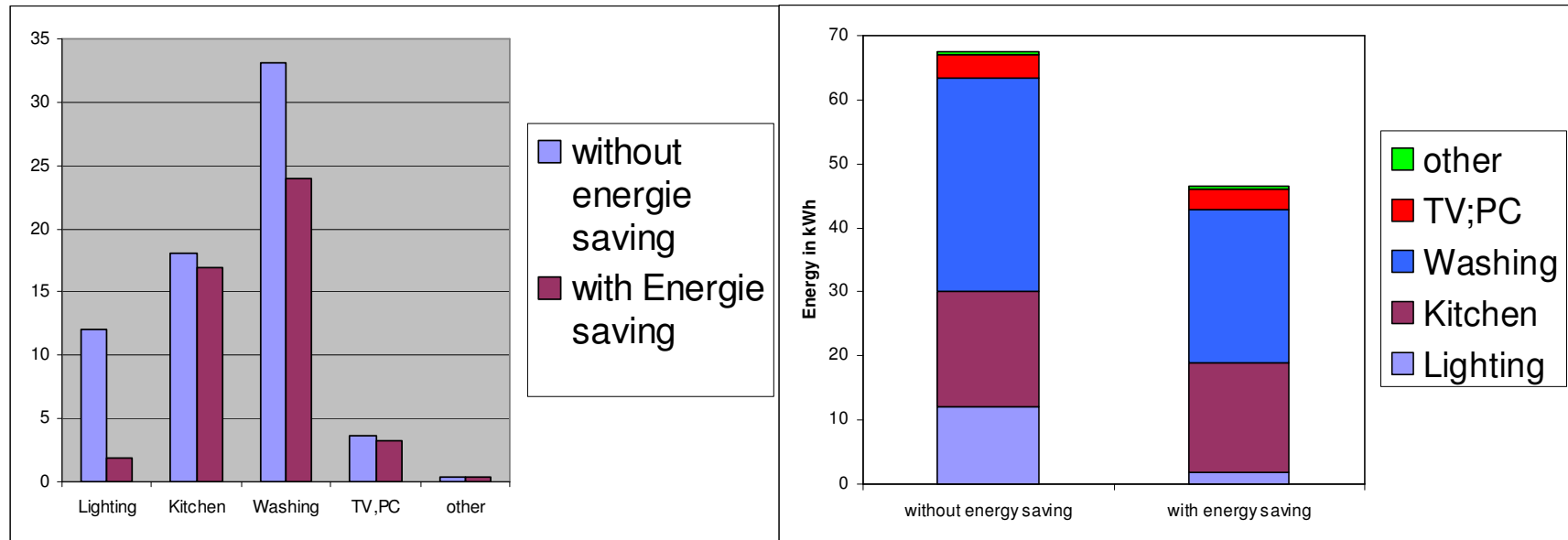


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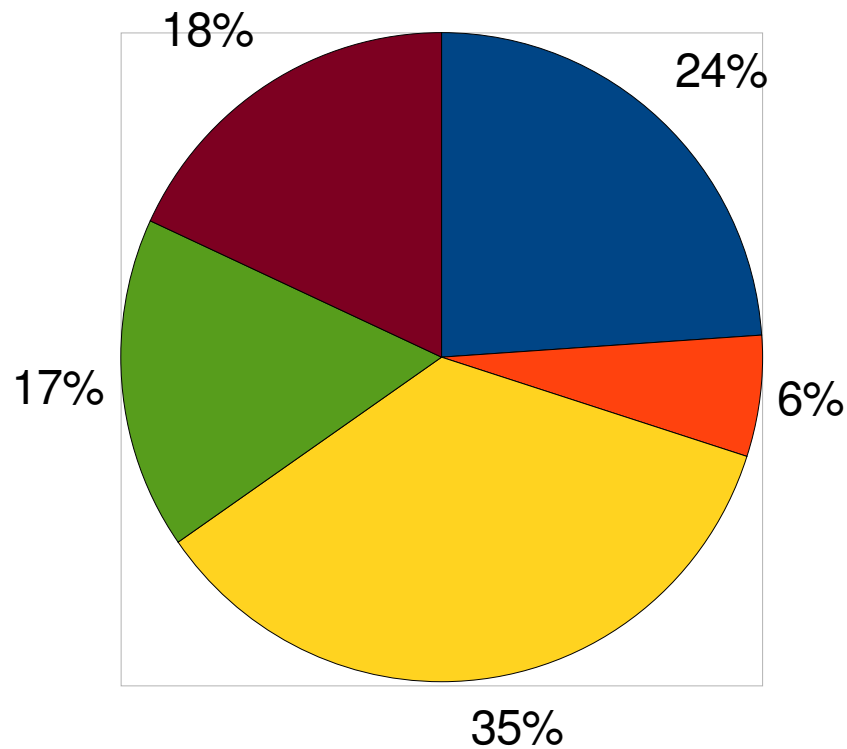
Energy Consumption



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Energy Consumption



- TV/PC
- Washing
- Kitchen
- Lighting
- other

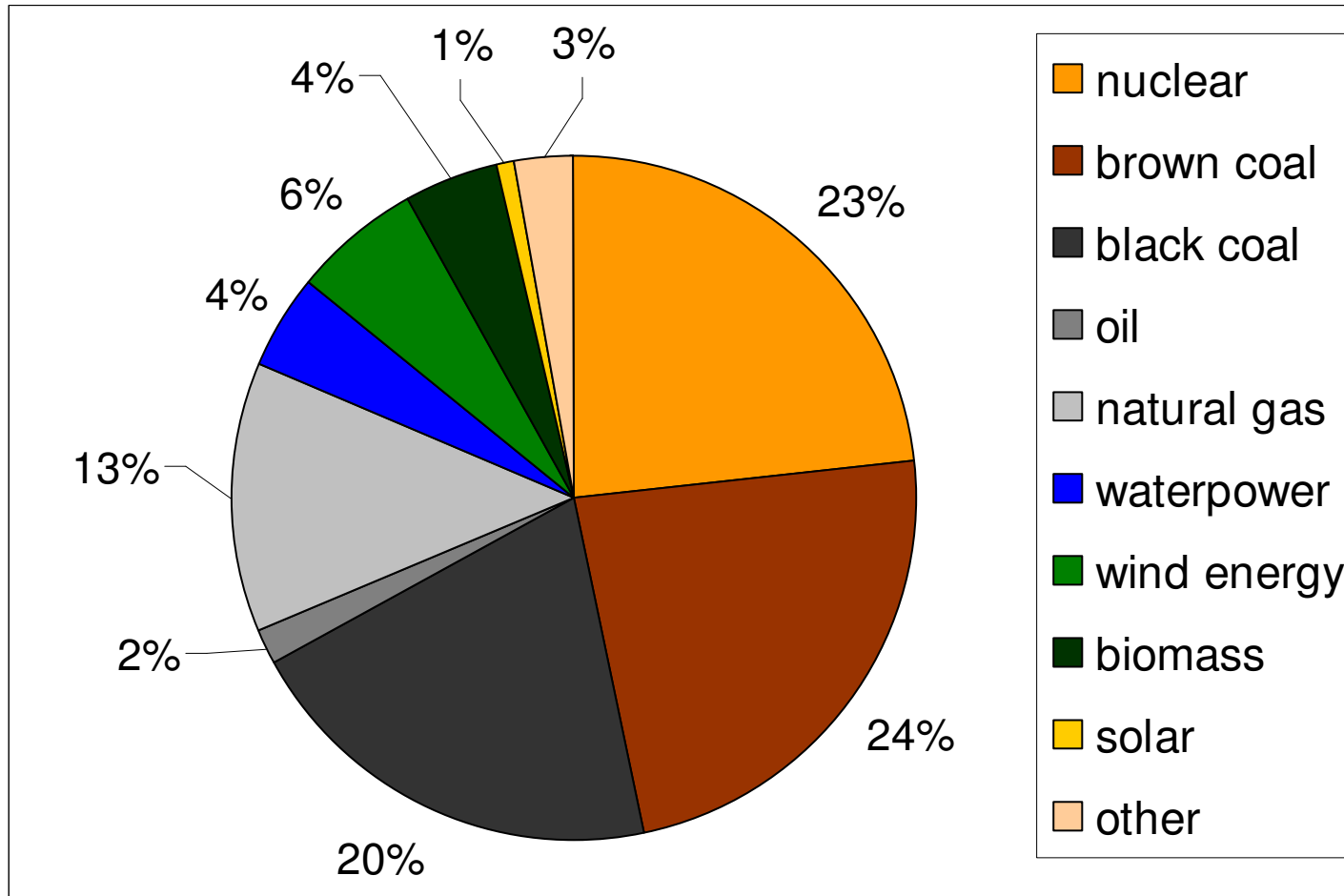


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Energy Mix

Electricity production in Germany: Energy Mix



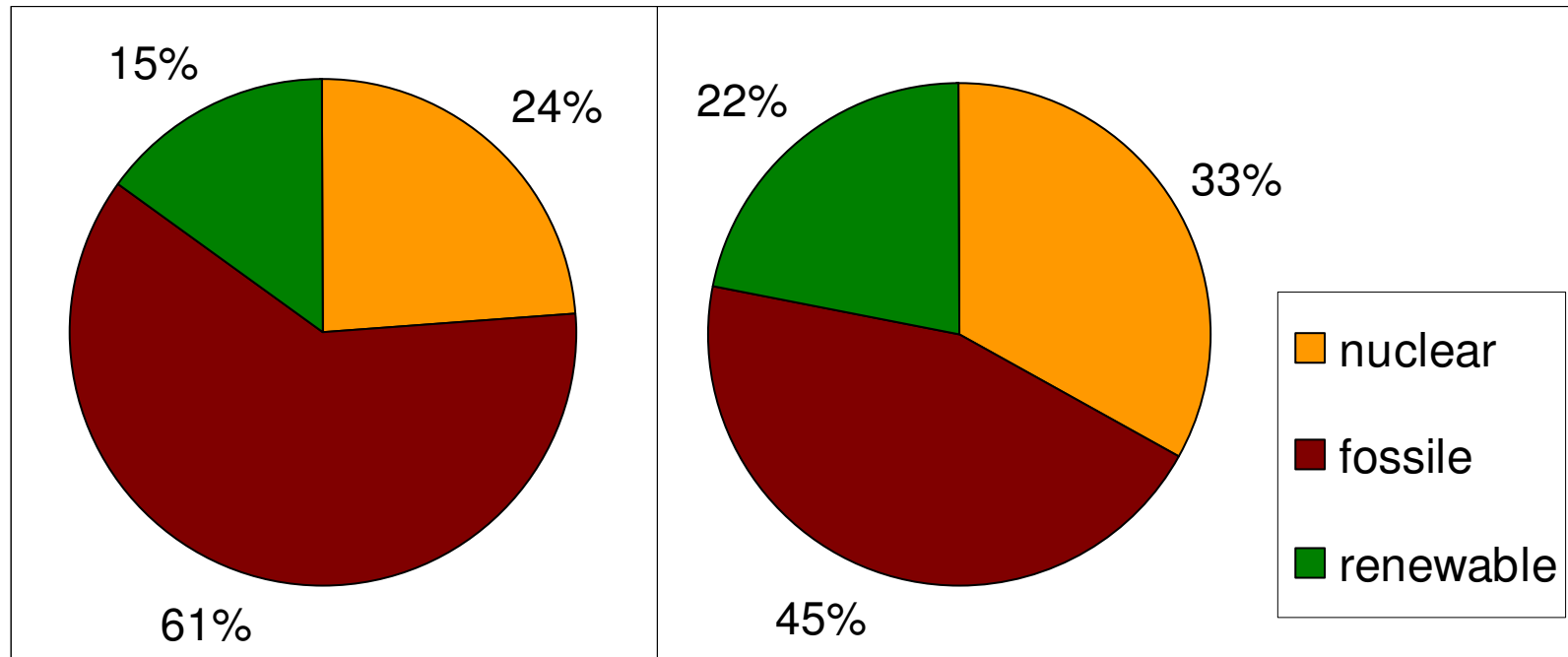
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(reference: Fischer Weltalmanach 2010)



Energy Mix

Germany (mean) and energy supplier Sulingen (EON-Avacon)



(reference: www.eon-avacon-vertrieb.com)

CO₂ emission Germany (mean):
Sulingen (region):

541 g/kWh
386 g/kWh

Energy Mix

Save energy and reduce CO₂ emission:

PC and Monitor:

stand-by power per day: $10 \text{ W} \cdot 21 \text{ h} = 210 \text{ Wh}$

energy saving per year: **76 kWh**

reduce CO₂ emission per year: **41 kg**

all students in our school: approx. **40 tons**

Energy-saving bulb 11 W/ light bulb 60 W

power difference per day: $49 \text{ W} \cdot 4 \text{ h} = 196 \text{ Wh}$

energy saving per year: **71 kWh**

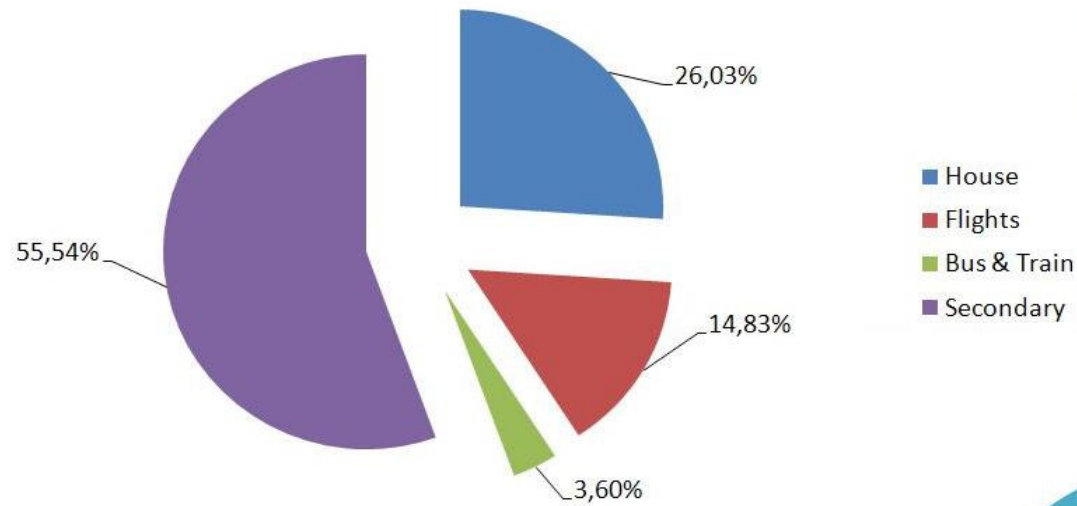
reduce CO₂ emission per year: **38 kg**

approx. 200 km by car (8 ltr. / 100 km)

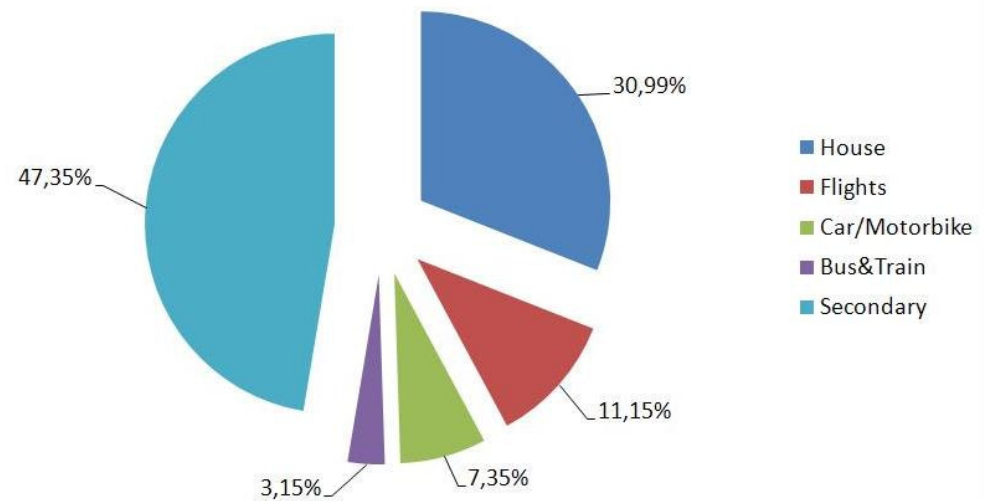
→ 40 kg CO₂

Carbon Footprint

Class 5-10 (Sek1)



Class 11+12 (Sek 2)



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Carbon Footprint

Average

- Sek1: $\emptyset=6,95 \text{ CO}_2 \text{ t per Year}$
- Sek2: $\emptyset=8,55 \text{ CO}_2 \text{ t per Year}$

Pupil

- Sek1: 790
- Sek2: 388

Total

- Sek1: 5494 t CO₂ per Year
- Sek2: 3317 t CO₂ per Year

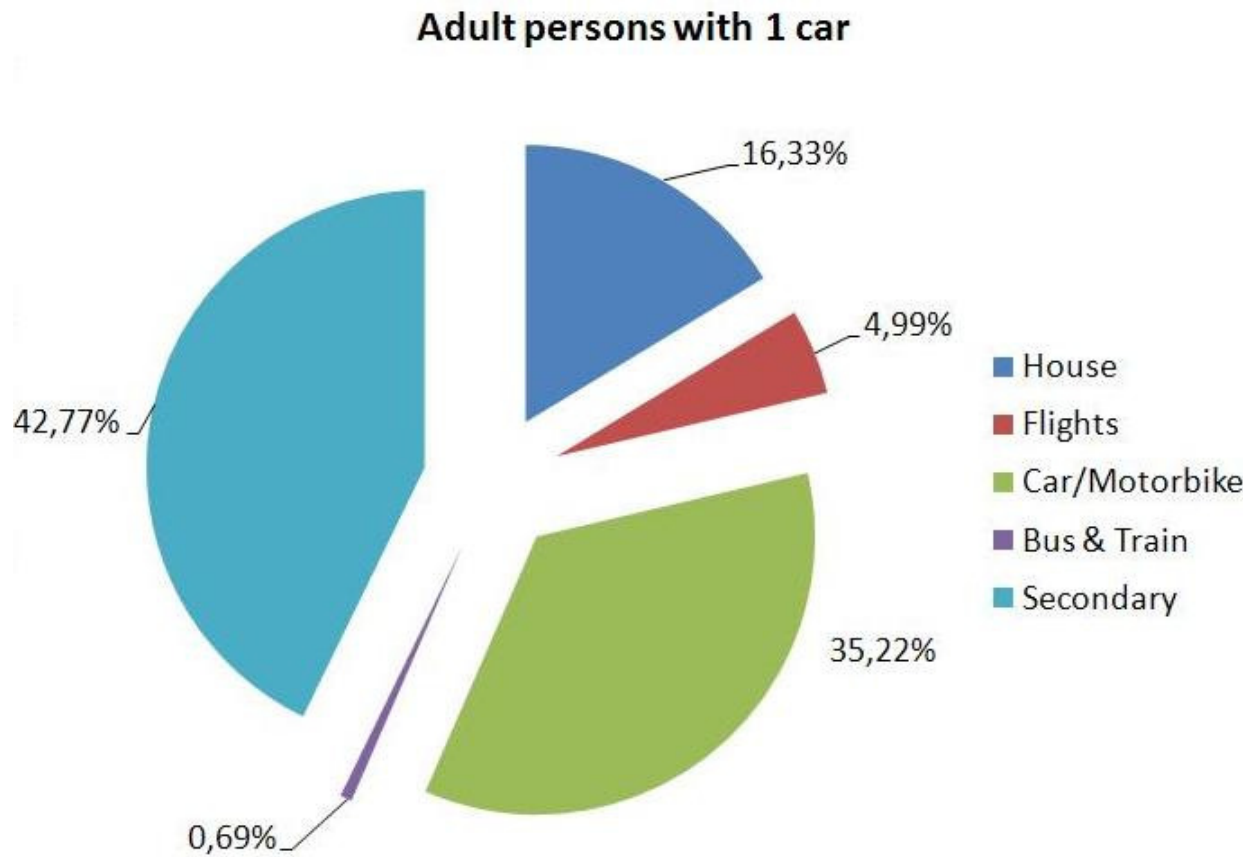
All: 8811 t CO₂ per Year



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Carbon Footprint



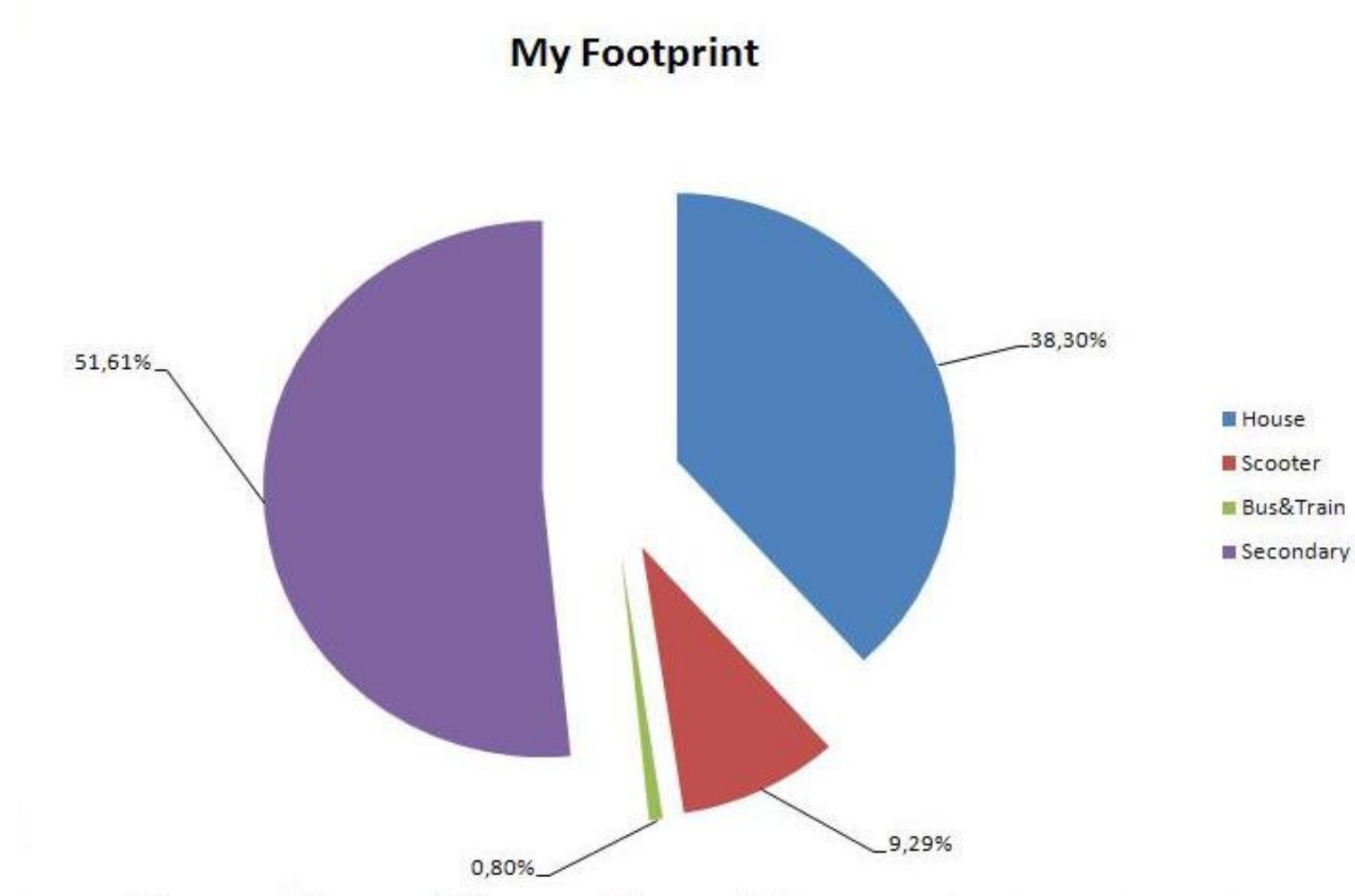
Ø = 10,84 t CO₂ per year



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Carbon Footprint



8,72 t CO₂ per Year



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