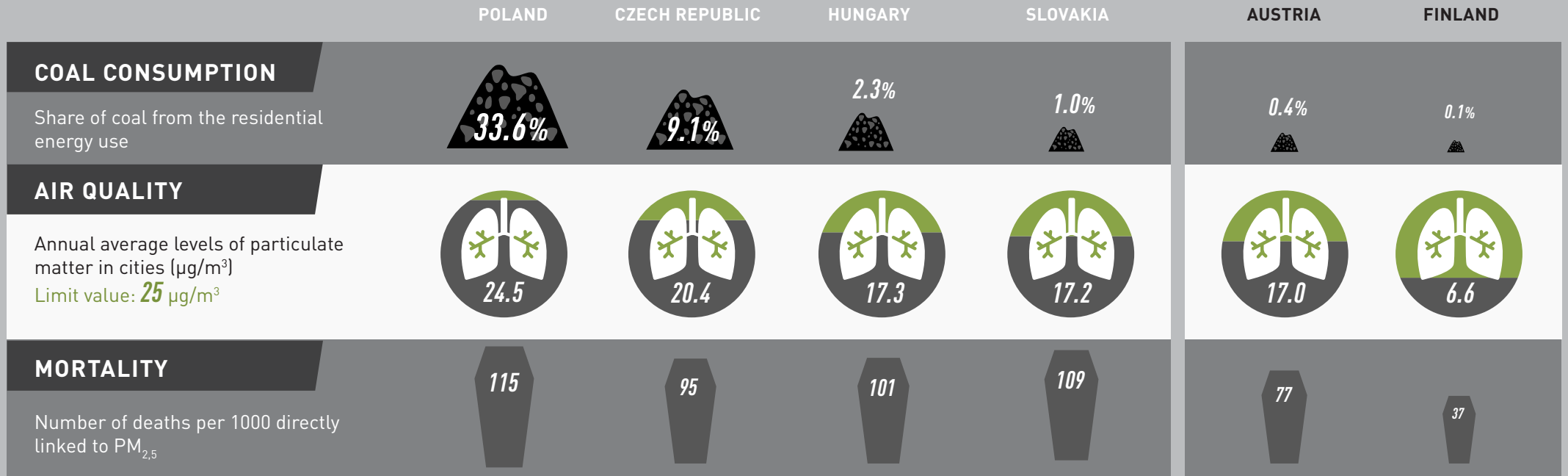


# AIR POLLUTION

One in ten deaths in Visegrad countries may be directly linked to air pollution and the high levels of particulate matter (PM). In Poland the annual average concentration of PM is close to the EU limit value of 25 µg/m<sup>3</sup>, meaning during the heating season urban concentrations could be even several times higher.



Comment: 2013 data Source: Eurostat



## PARTICULATE MATTER

These are very small (2 – 10 microns) liquid or solid particles suspended in air. Its main source is soot from incomplete combustion in diesel engines, the burning of coal and wood, or waste incineration.

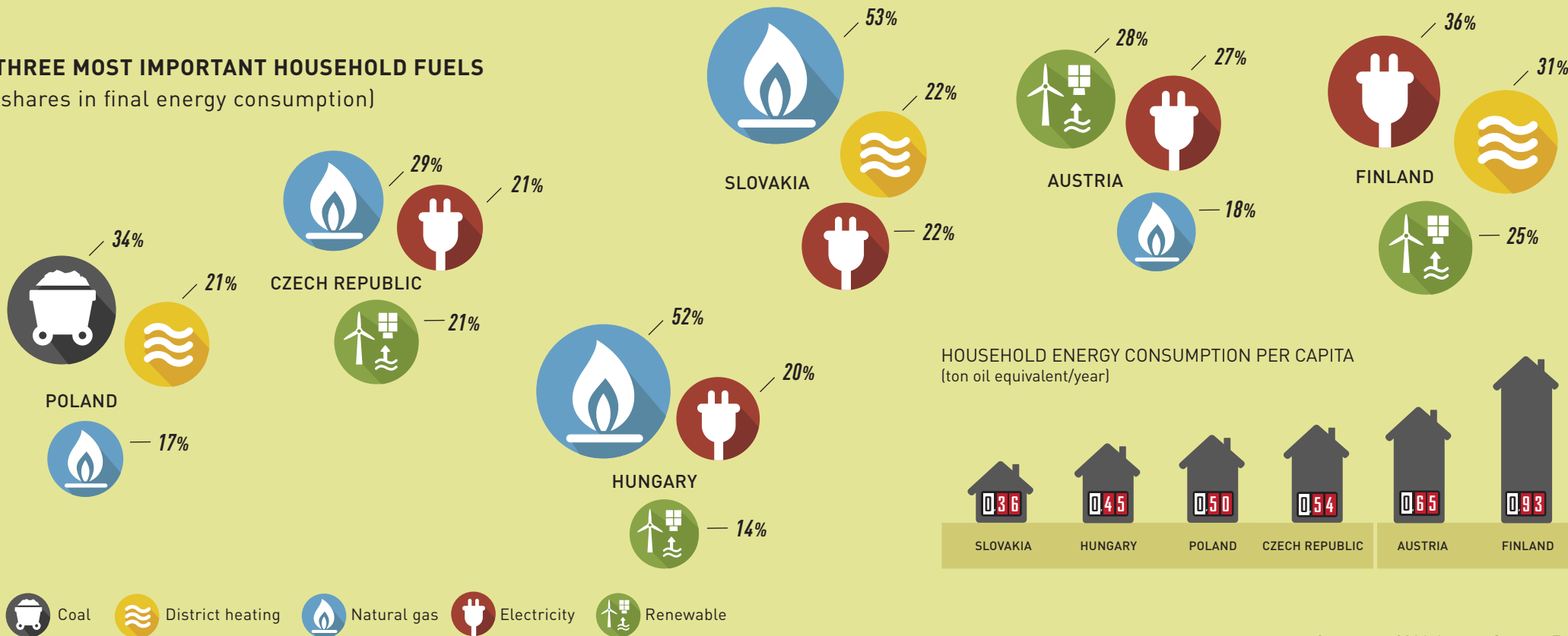
## PM<sub>2,5</sub>

The most dangerous kind of particulate matter. The diameter of the particles is less than 2,5 microns. (µm – 1 millionth of a meter) When inhaled, particles under 10µm get beyond the pharynx, under 4 µm reach the lungs, while most of the particles under 2,5 µm will remain in there.

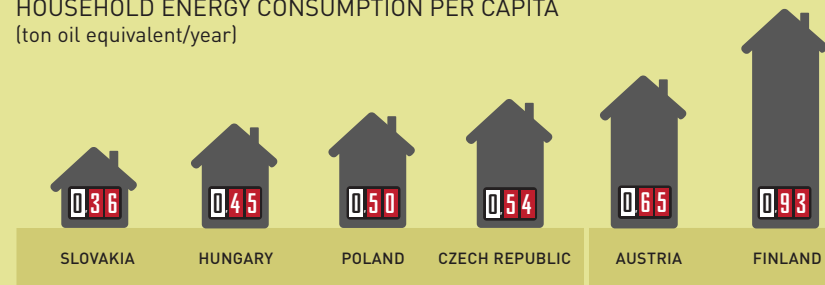
# HOUSEHOLD ENERGY CONSUMPTION

There are significant differences in household energy consumption between the V4 countries. In Poland, coal is still the main source, while in Hungary and Slovakia, natural gas accounts for over half of residential energy consumption. Meanwhile renewables are leading in Austria.

## THREE MOST IMPORTANT HOUSEHOLD FUELS (shares in final energy consumption)



## HOUSEHOLD ENERGY CONSUMPTION PER CAPITA (ton oil equivalent/year)



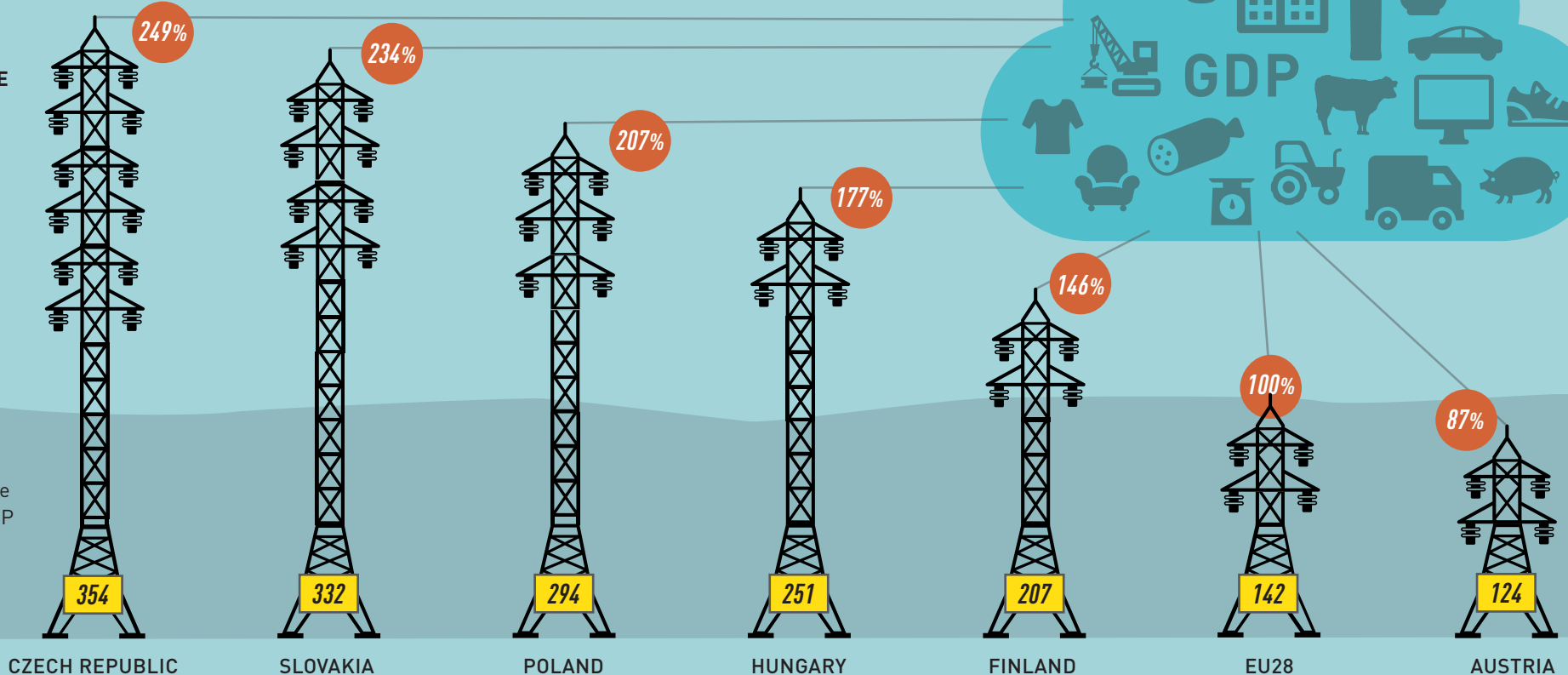
Comment: 2014 data Source: Eurostat

# ENERGY INTENSITY

It takes nearly three times more energy to produce one unit of GDP in Czech Republic than in Austria. Within the V4 group Hungary has the best energy intensity figure, though that is still well behind the EU average. How much energy is used to produce a unit of GDP compared to the EU average?

HOW MUCH ENERGY IS USED TO PRODUCE A UNIT OF GDP COMPARED TO THE EU AVERAGE?

Energy used to produce one million Euro of GDP (ton oil equivalent)



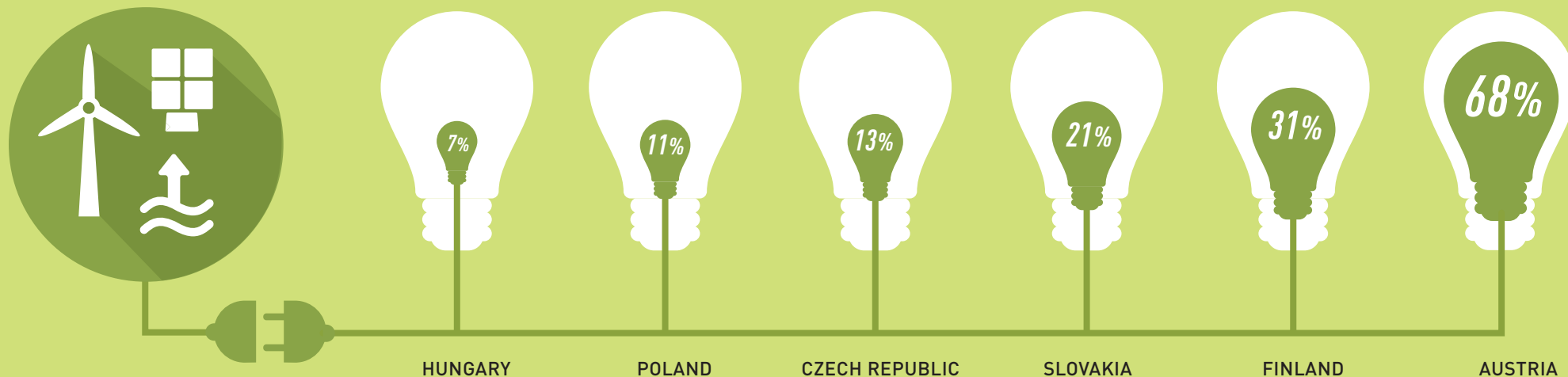
Comment: 2013 data

Source: Eurostat

# RENEWABLE ENERGY

Austria stands out in the region in the use of renewables, especially when it comes to electricity generation. The share of renewable energy in total energy consumption is below 10% in the entire Visegrad 4. In Hungary, the 10% renewable share is not reached, even in power consumption.

SHARE OF RENEWABLES WITHIN ELECTRICITY CONSUMPTION



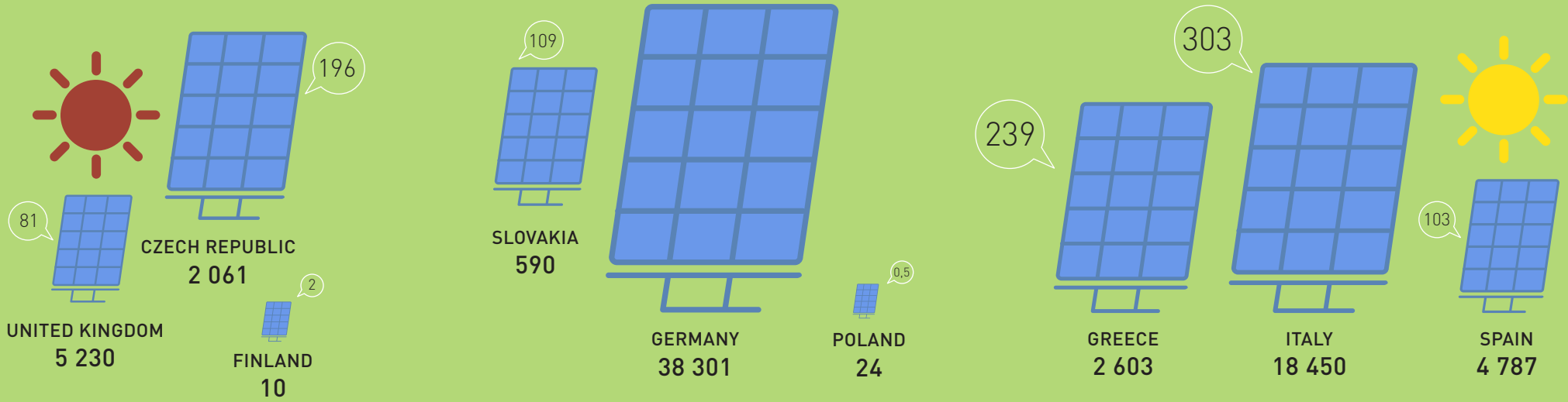
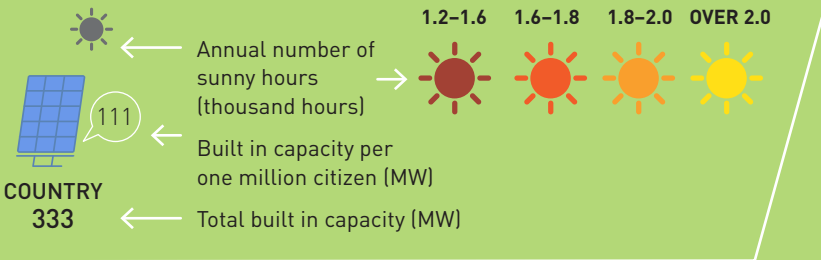
SHARE OF RENEWABLE WITHIN TOTAL ENERGY CONSUMPTION



Comment: 2013 data Source: Eurostat

# SOLAR CAPACITY

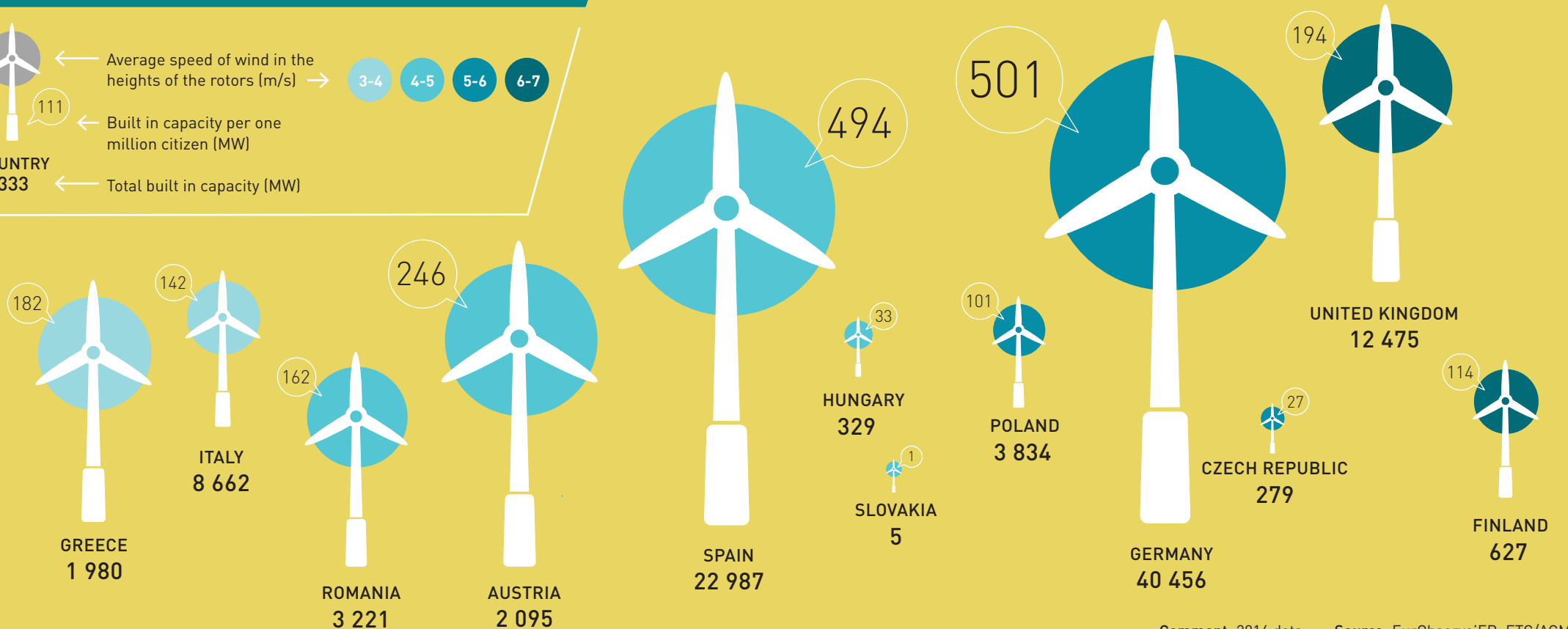
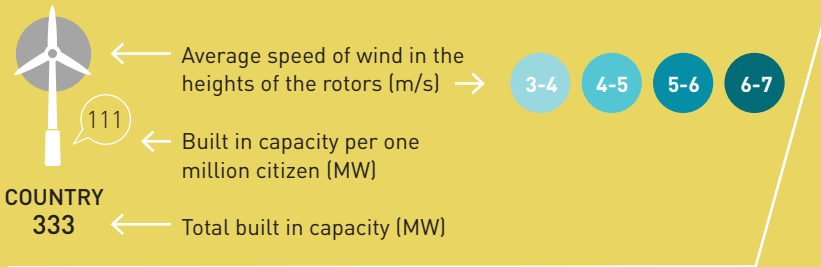
There are 75 times more photovoltaic capacity installed in Italy per capita than in Hungary (although the number of sunny hours is also higher). Germany is not famous for its sunny weather, but nonetheless has built in capacity is 1000-fold compared to the Hungarian figures while proportionately to the population the difference is still 120-fold. Economic incentives play a great role in the roll out of this technology.



Comment: 2014 data; photovoltaic technology only Source: EurObserve'ER; ETC/ACM

# WIND CAPACITY

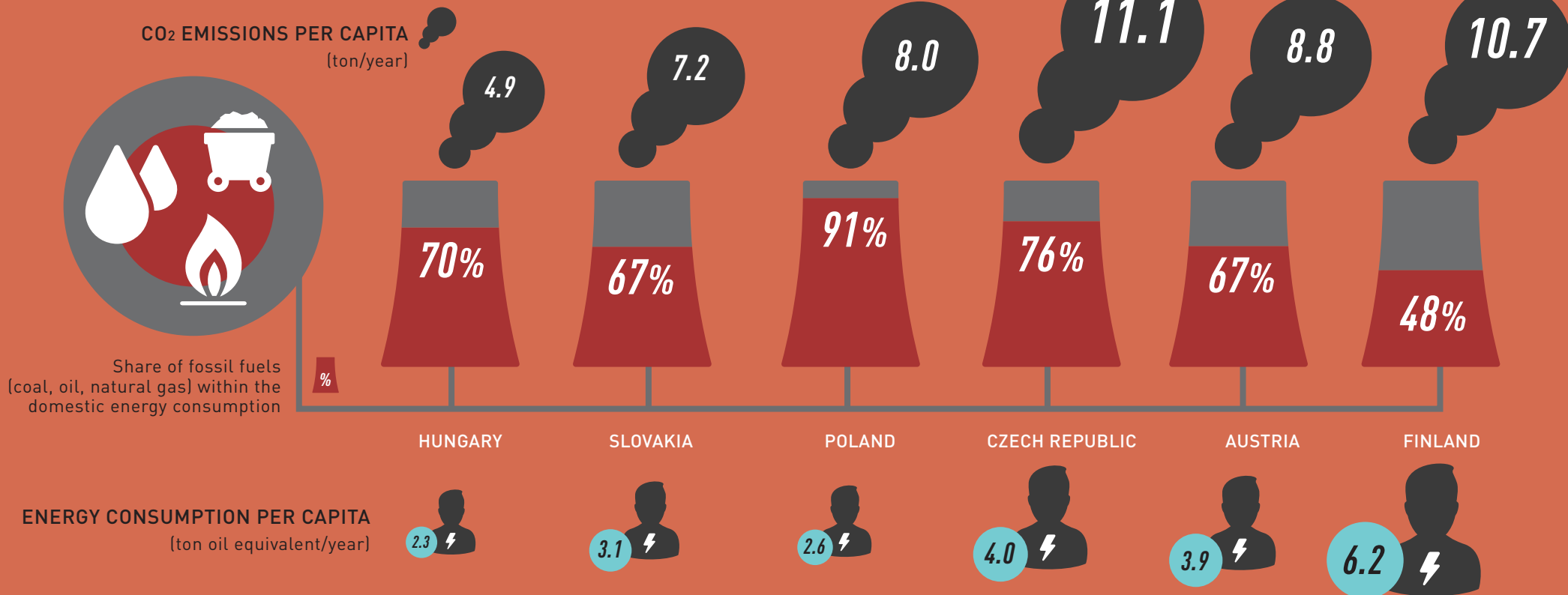
All Visegrad 4 countries are at the end of the EU ranking list in relation to the utilization of the country specific wind potential. Even though for instance in Hungary the average wind speed is similar to Spain, proportionately Spain has 15-times bigger built in capacity. Hungary – where no new project has gone ahead since 2011 – has been overtaken even by Romania, which has on average much less wind potential.



Comment: 2014 data Source: EurObserve'ER; ETC/ACM

# CO<sub>2</sub> EMISSION

Per capita, CO<sub>2</sub> emissions in the Czech Republic are twice as high as in Hungary, which is mainly due to the high share of fossil fuels in the Czech energy mix. In Poland coal is even more dominant within the fuel mix. While Finland's high per capita emissions are due to their outstanding energy consumption per capita due to the cold weather.



Comment: 2012-2013 data

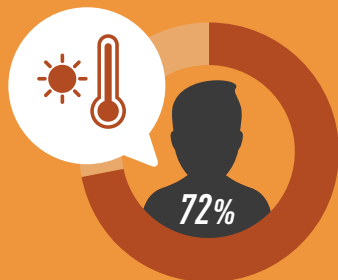
Source: Emissions Database for Global Atmospheric Research (EDGAR), Eurostat

# THE IMPACTS OF CLIMATE CHANGE

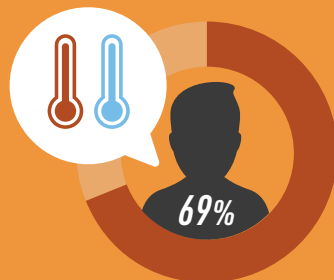
The majority of the Hungarians already feels the impacts of climate change in their everyday life and are gravely concerned about these. Four-fifth of the people are worried that these problems will endanger their health.

PERCENTAGE OF PEOPLE WHO ARE EXPERIENCING CLIMATE CHANGE IMPACTS IN THEIR TOWN OR VILLAGE

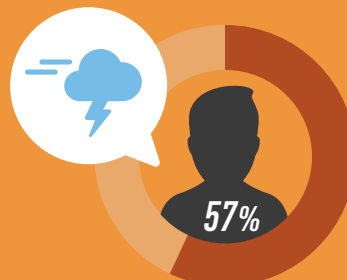
Hotter summers



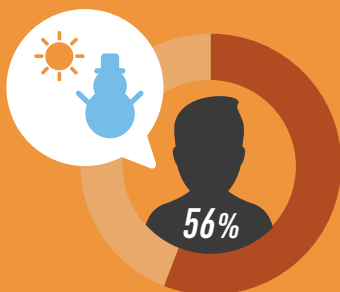
Sudden temperature changes



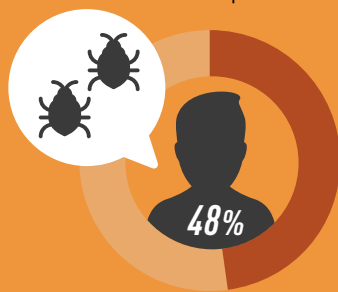
Stronger thunderstorms and wind storms



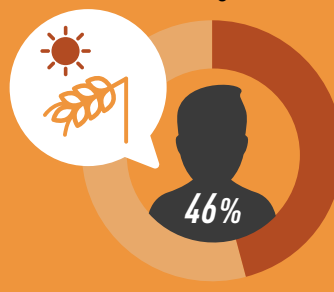
Milder winters



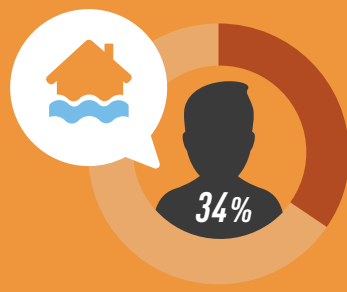
New invasive species and pests, greater occurrence of existing weeds and pests



More frequent droughts



Bigger floods



are worried about climate change-related health hazards



consider it possible that their home and property will be damaged



expects local government to be proactive in limiting the negative effects



wants to be informed about possible precautionary measures



would participate in local programs that prepare for local environmental changes

Source: Energiaklub survey, 1600 questionnaire, July 2015, nationally representative sample