

# ODYSSEE-MURE



## Energy sufficiency in the EU – A selection of indicators

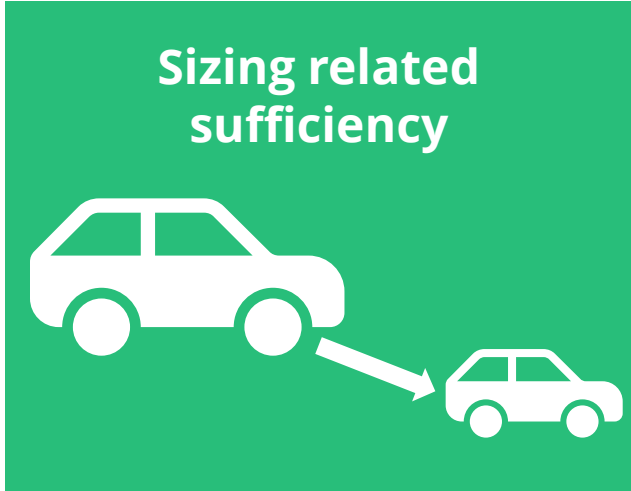
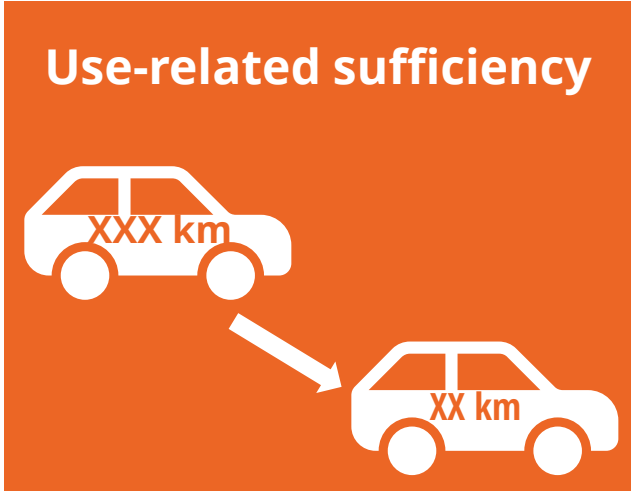
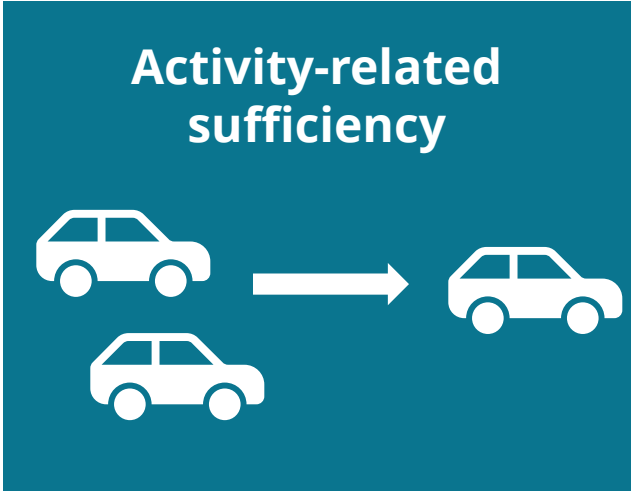
*September 25, 2024*

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# Various forms of energy sufficiency at sector level

Energy sufficiency here refers to a reduction of final energy consumption in the households and transport sectors, linked to three types of household behaviours:



# Examples of energy sufficiency actions



Effects	Activity-related sufficiency	Use-related sufficiency	Size related sufficiency
Space heating	Reduction in the number of dwellings due to sufficiency	Reduction of temperature setpoint	Reduction in the size of dwelling (m2/dwelling)
Electrical Appliances	Decrease in equipment rates related to sufficiency	Reduction in the use of equipment (shorter duration, reduced frequency)	Reduction in the size of equipment
Cars	Decrease in equipment rates related to sufficiency	Reduction in the distance travelled by car	Reduction in the size of cars

**For all these indicators, both level and trends are important to show.**

**For instance, for the average size per dwelling how much is it now and how it is changing over time?**

## Selection of sufficiency indicators in today's presentation

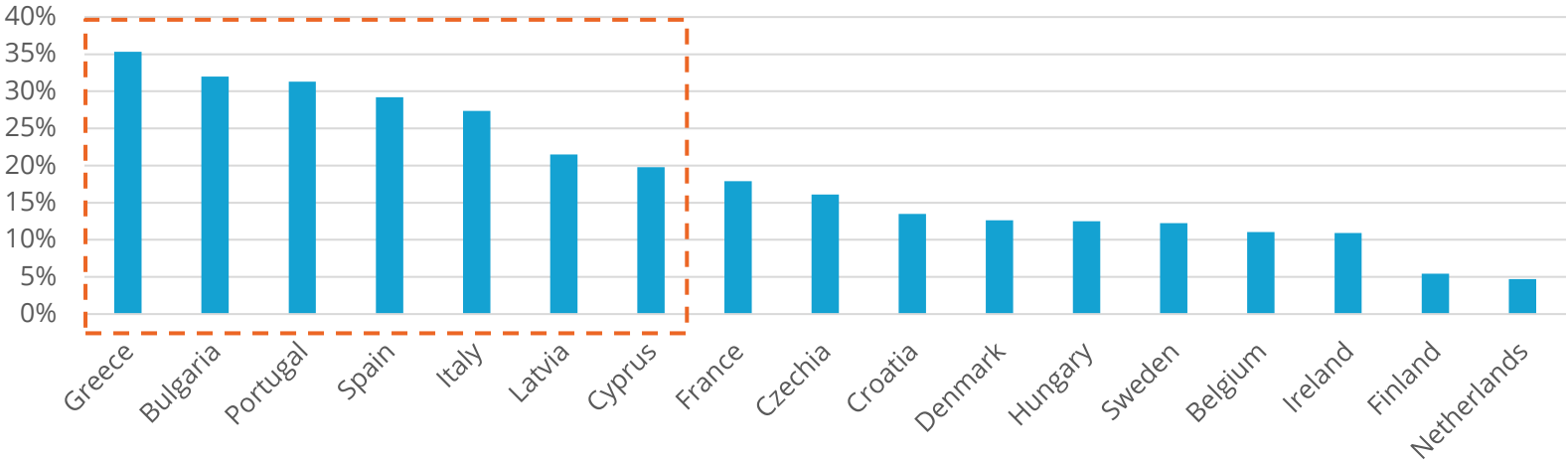
1. Share of impermanently occupied homes (Activity)
2. Average floor area per capita in the stock of dwellings (Size)
3. Number of cars per person (Activity)
4. Distance traveled by car per capita (Use)



# 1. Share of impermanently occupied homes

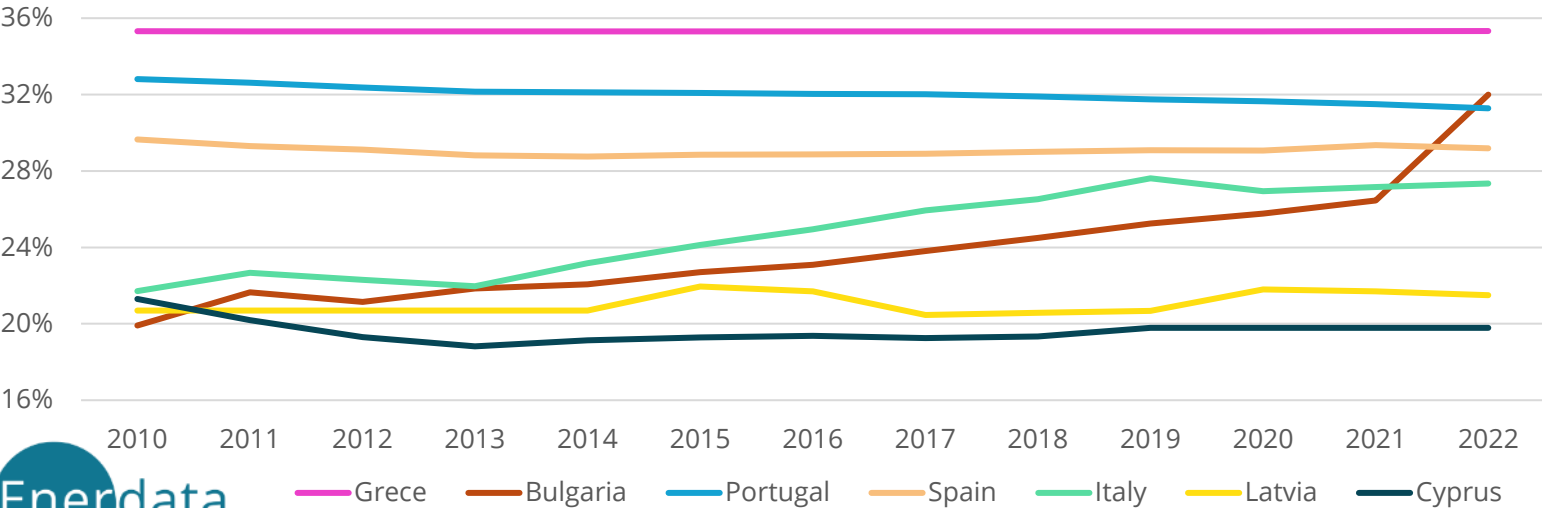
# Share of impermanently occupied homes (Activity)

Share of impermanently occupied dwellings - 2022



- In 7 countries, 20% or more of the dwelling stock is impermanently occupied.
- The share varies significantly across the EU, ranging from 5% to 35%.

Share of impermanently occupied dwellings – 2010 - 2022

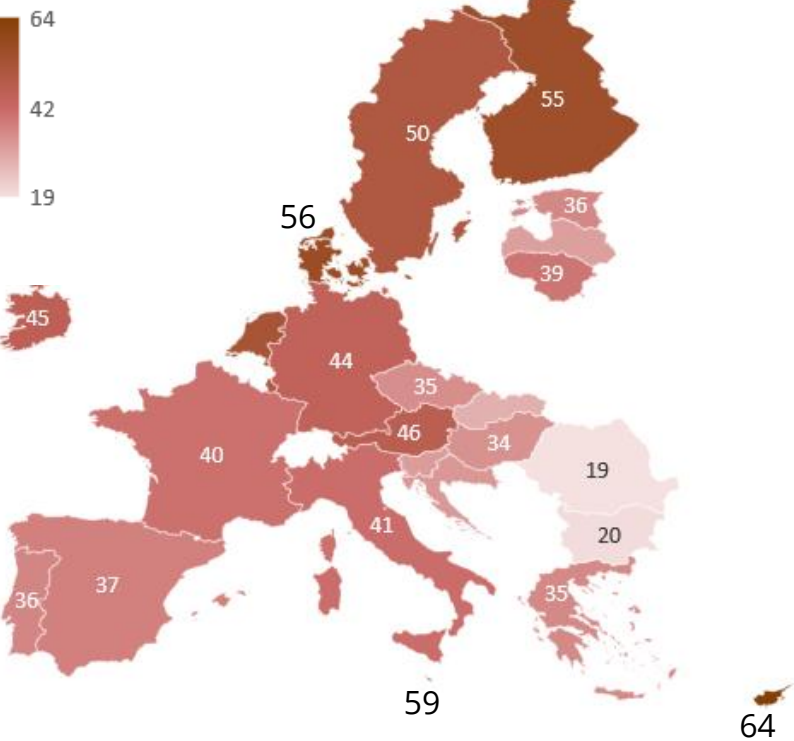


- Contrasting trends across countries with stagnation in some and increasing share in others

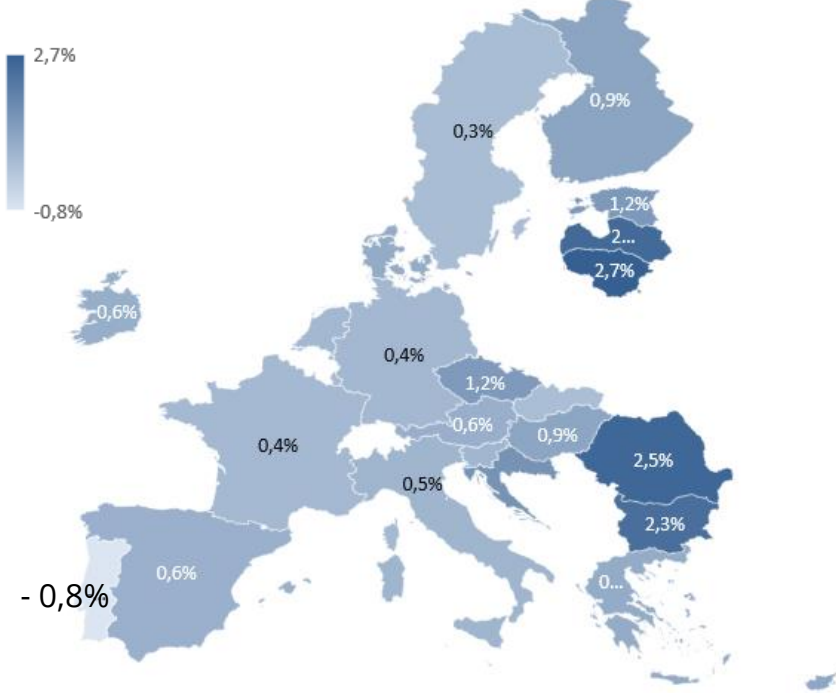
## 2. Average floor area per capita in the stock of dwellings

# Average floor area per capita in the stock of dwellings (Size)

Average floor area per capita - 2022



Average yearly variation of floor area per capita 2010 - 2022



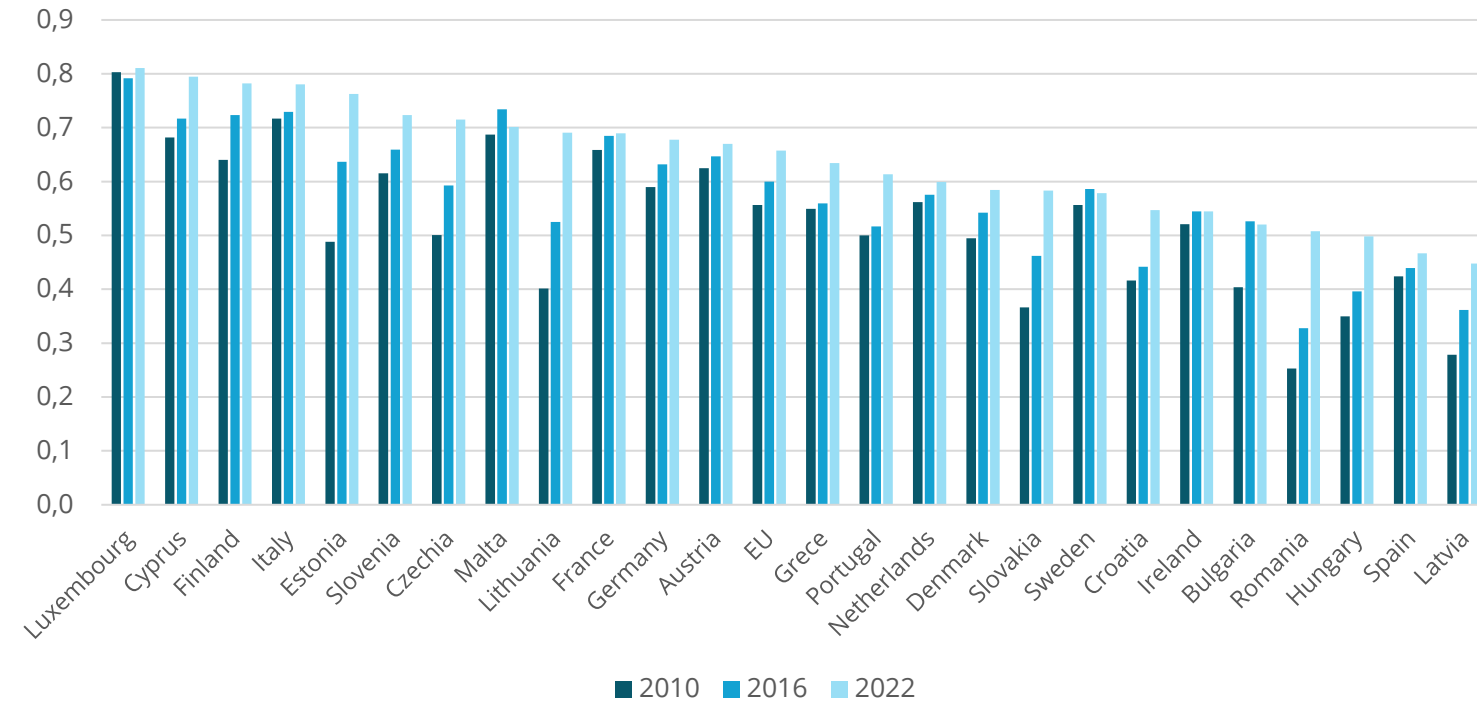
- Significant variation across EU MS, with the average area ranging from 19 to 64 m².
- Highest average floor area in northern and island countries, and lowest in eastern Europe countries
- Stronger yearly variation in Eastern European countries and some Baltic countries, reaching 2.7% per year (i.e + 37% between 2010 and 2022)
- Slight decrease in the average floor area in one country



# 3. Number of cars per person

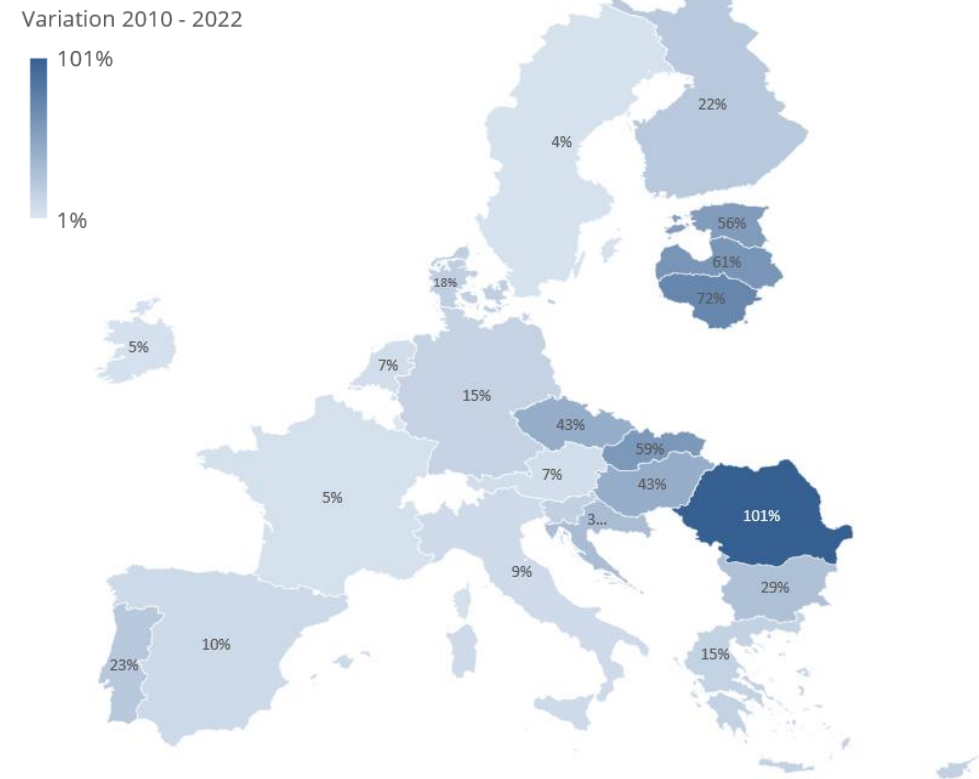
# Number of cars per person (activity)

Number of cars per capita (population above 15 years of age)



- Upward trend throughout the period in all EU MS and at EU level, with the highest number currently at 0,8 car per capita, and the lowest at 0,45 per capita.

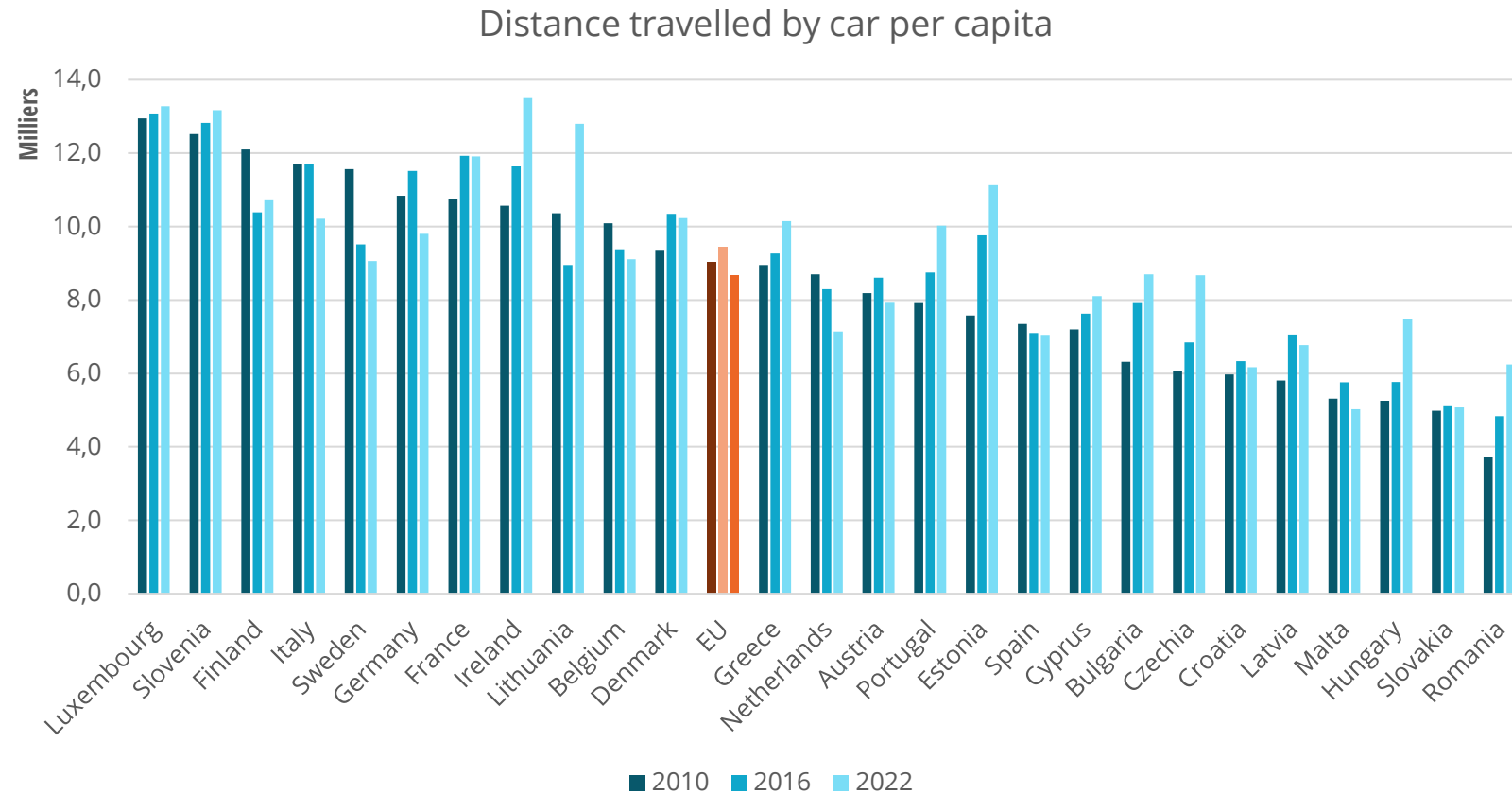
Number of cars per capita above 15 years of age - Variation 2010 - 2022



- The indicator increased in all EU MS with significant variation across countries ranging from +1% to x2

# 4. Distance traveled per capita by car

# Distance traveled per capita by car (use)



- Decrease in the distance travelled by car in 7 countries, that can be explained by improvement in public transportation systems.
- Stagnation at EU level
- Contrasting levels throughout EU MS in 2022, ranging from 6200 km/capita to 13000 km/capita

# HELPING YOU SHAPE THE ENERGY TRANSITION

## About Enerdata:

Enerdata is an independent research company established in 1991, specializing in the analysis and forecasting of energy and climate issues, at world and country level.

Leveraging our globally recognised databases, intelligence systems and models, we assist our clients in designing their policies, strategies and business plans.



**Thank you for your attention!**

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