



# Territorial potentials of the **Green Economy** in rural areas, Hungary



Dr. Balázs Duray – research fellow

Dr. András Donát Kovács – research fellow

Dr. Imre Nagy - senior research fellow

HAS IRS

*Alföld Research Department*

[www.rkk.hu](http://www.rkk.hu)



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# Content

1. Green Economy (green sectors)
2. Renewable energy in Hungary
3. Renewables in the South-Danubian Region



# New economical paradigm: **The Green Economy**<sup>1</sup>

Increase the **green investment**

Increase the quantity & quality of jobs in **green sectors**

Increase the share of **green sectors** in GDP

Decrease the Energy/resource use per unit of production

Decrease the CO<sub>2</sub> and pollution level/GDP

Decrease the wasteful consumption

<sup>1</sup> UN 2009: Global Green New Deal. An Update for the G20 Pittsburgh Summit. UNEP

UN2010: Green Economy: Driving a Green Economy Through Public Finance and Fiscal Policy Reform. Working paper 1.0

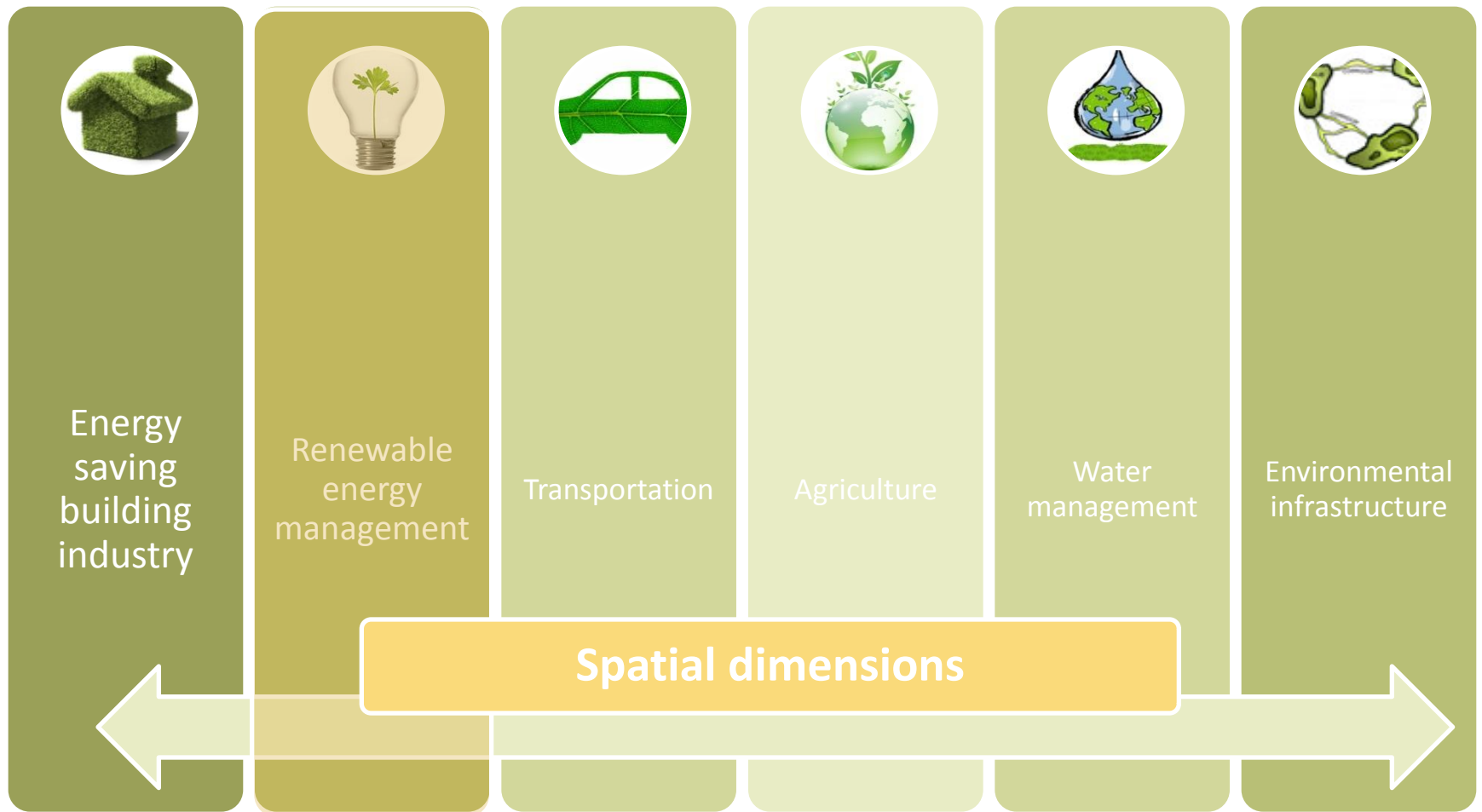
OECD 2010: Monitoring progress towards green growth: indicators for the oecd green growth strategy (Paris).

# Spatial dimensions of the Green Economy

- Green economy is virtually the “greening” of the economy through green sectoral development processes
- The examination of the spatial aspects of the existing efforts to establish domestic green economy was carried out through green sectors
- Spatial dimensions: spatial competitiveness; sustainable spatial development; integrating into the European space



# Green Sectors

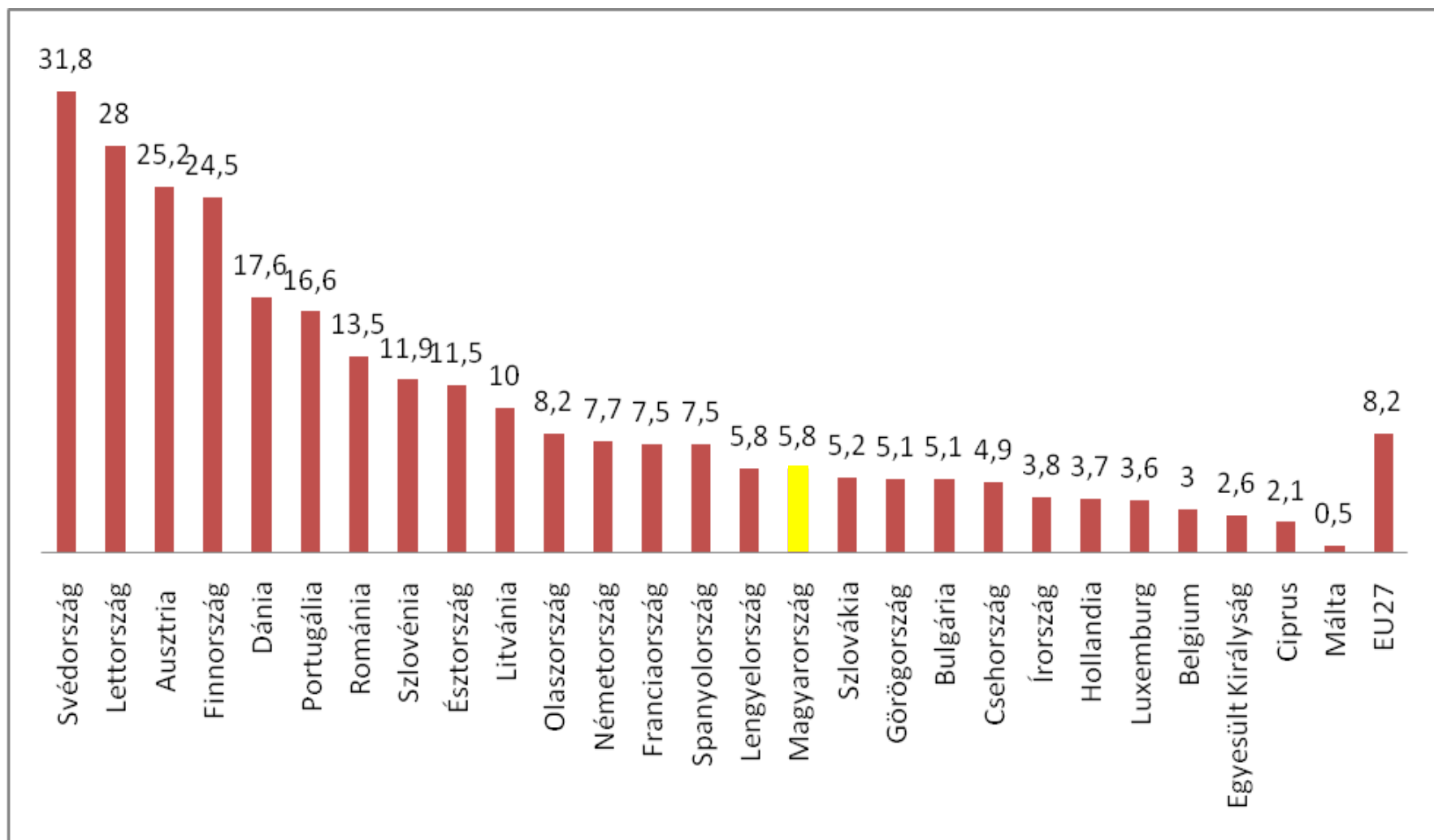


# EU's 2020 Directive

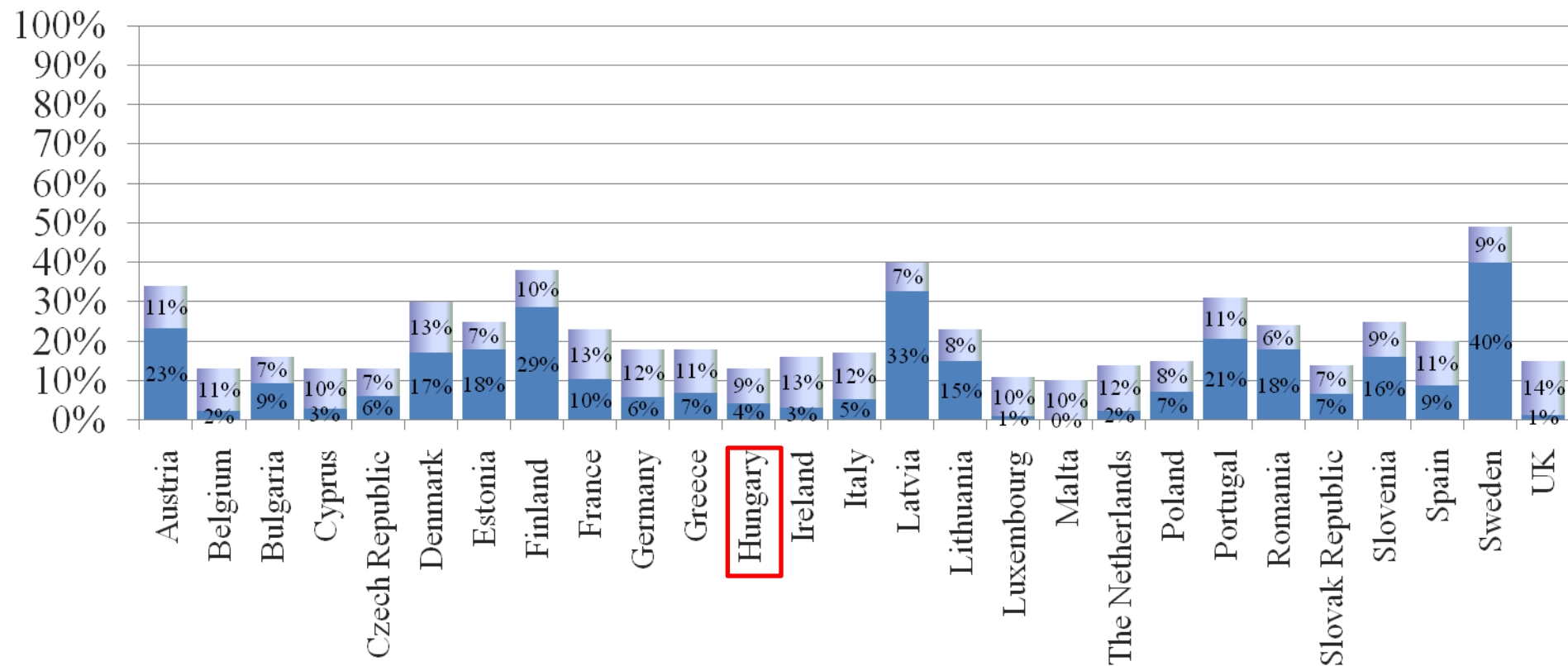
## Three Primary Objectives

- Reduce GHGs 20% below 1990 levels
- Reduce emissions by 20% by improving energy efficiency, and
- Increase the share of energy derived from renewables to 20%

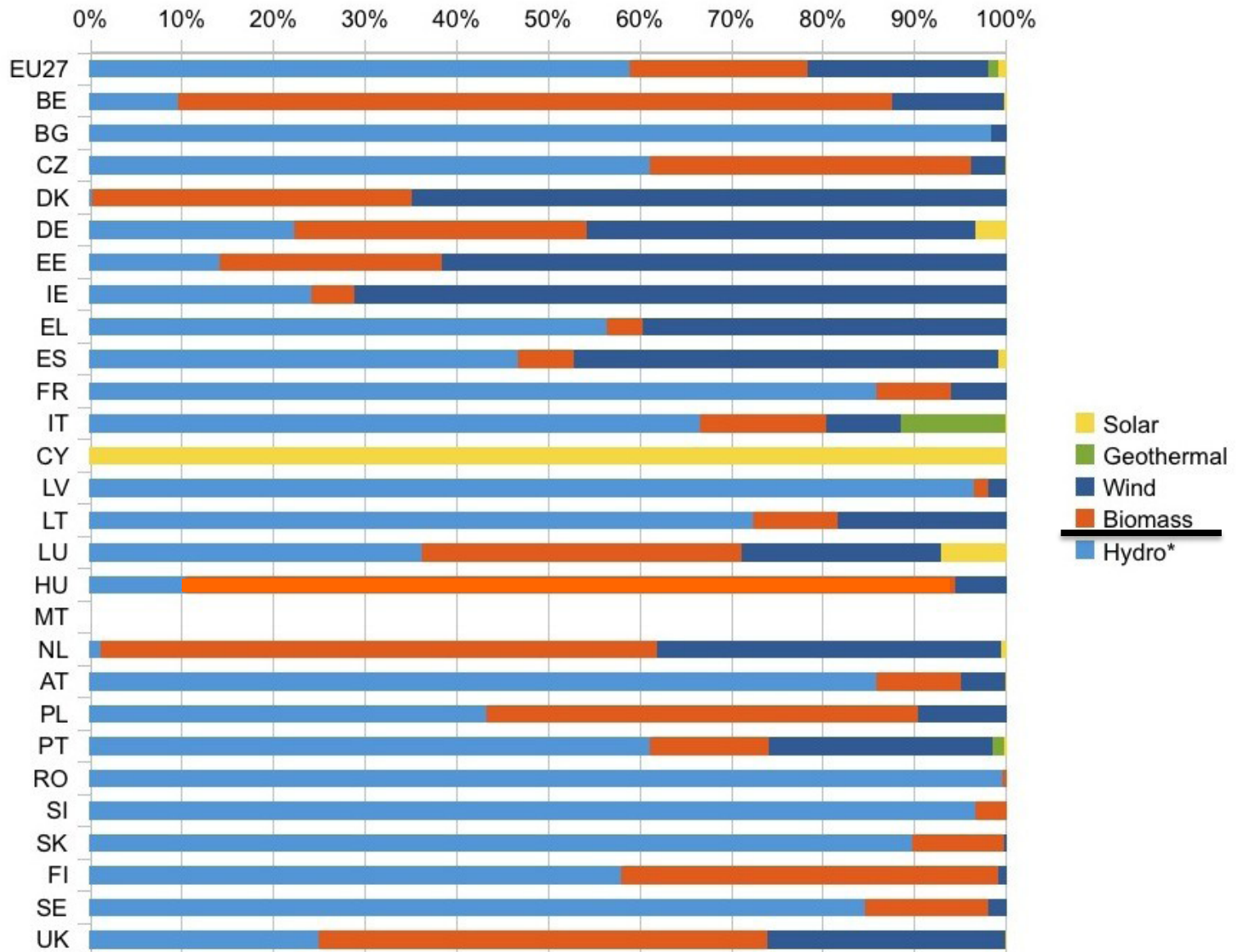
## Percentage of energy derived from renewable energy sources in 2008



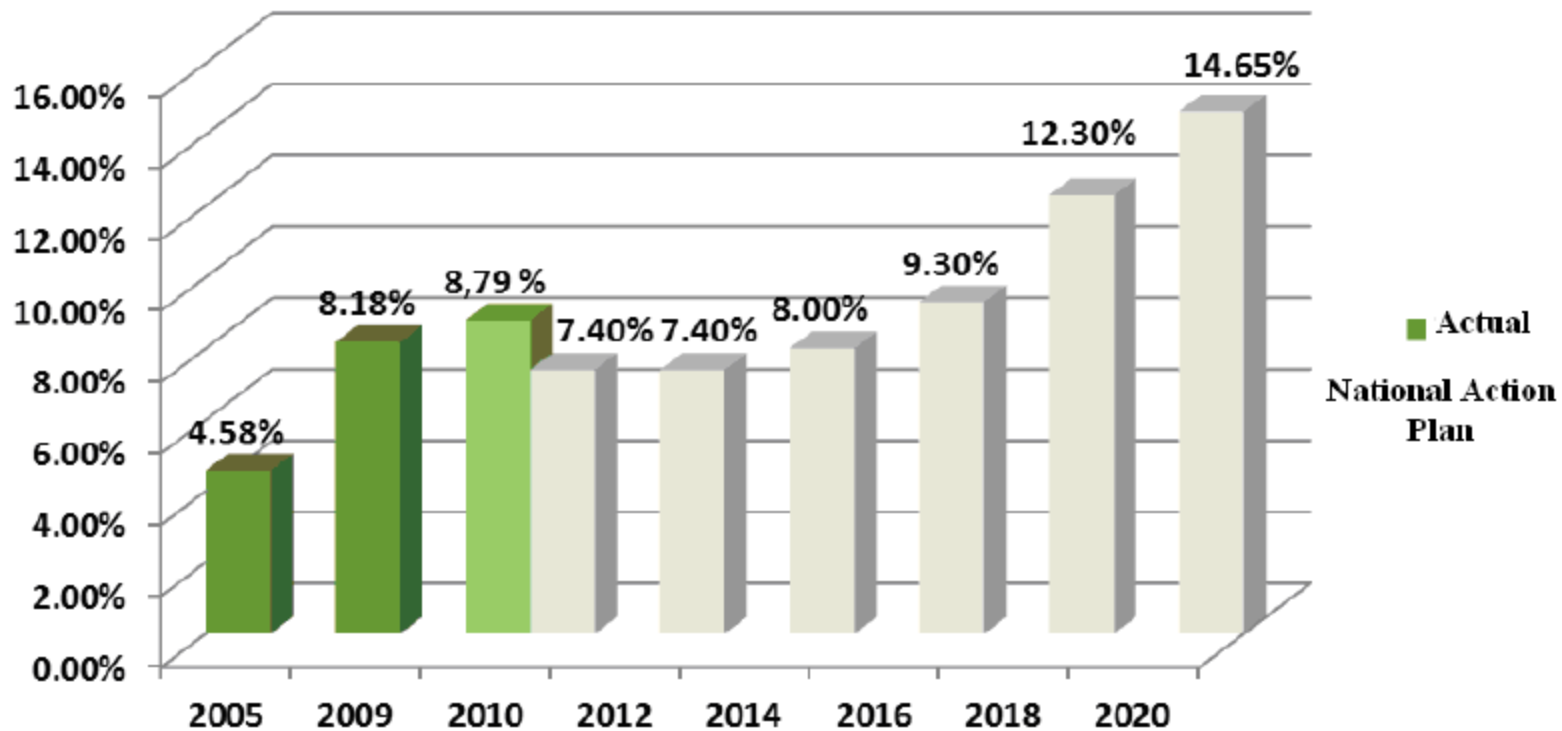
# Percentage of energy to be derived from renewable energy sources in 2020



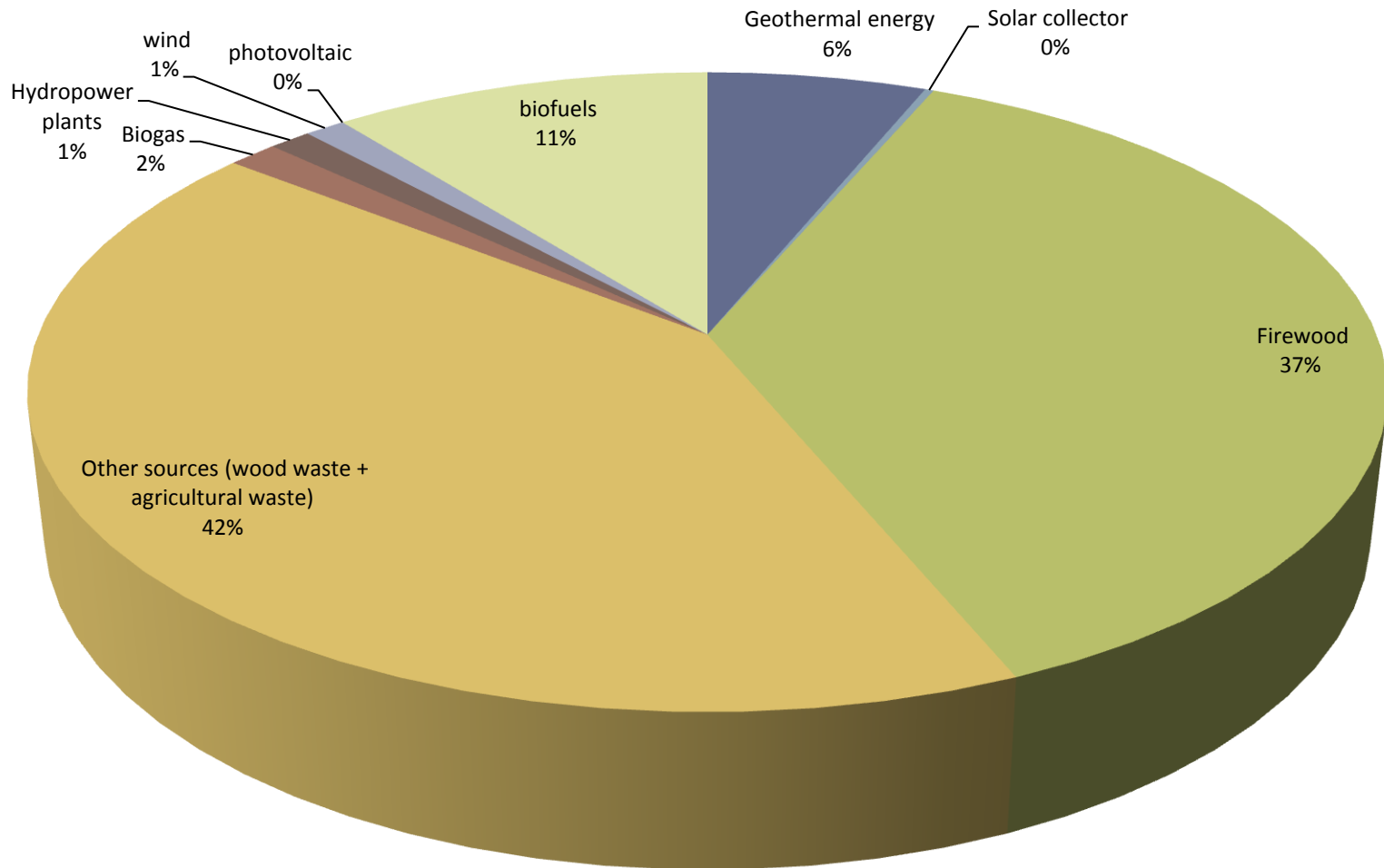
# 2007 Share of Technologies of the Overall Renewable Electricity Portfolio for Each Member State



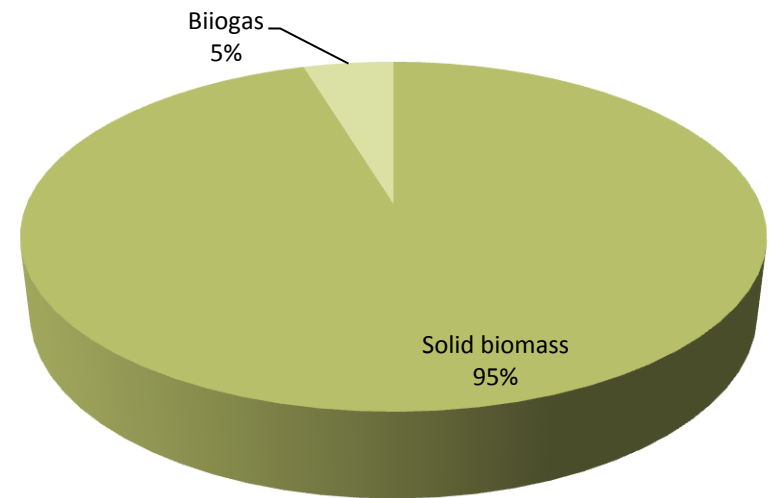
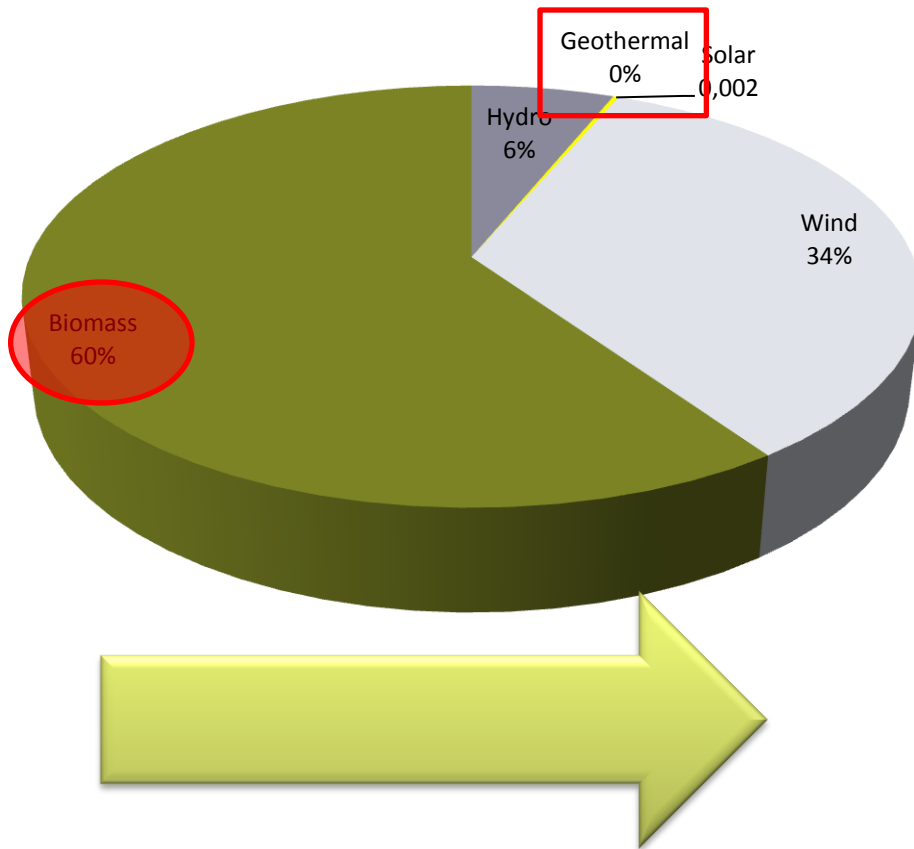
## *Hungary: Share of renewable energy in gross final energy consumption*



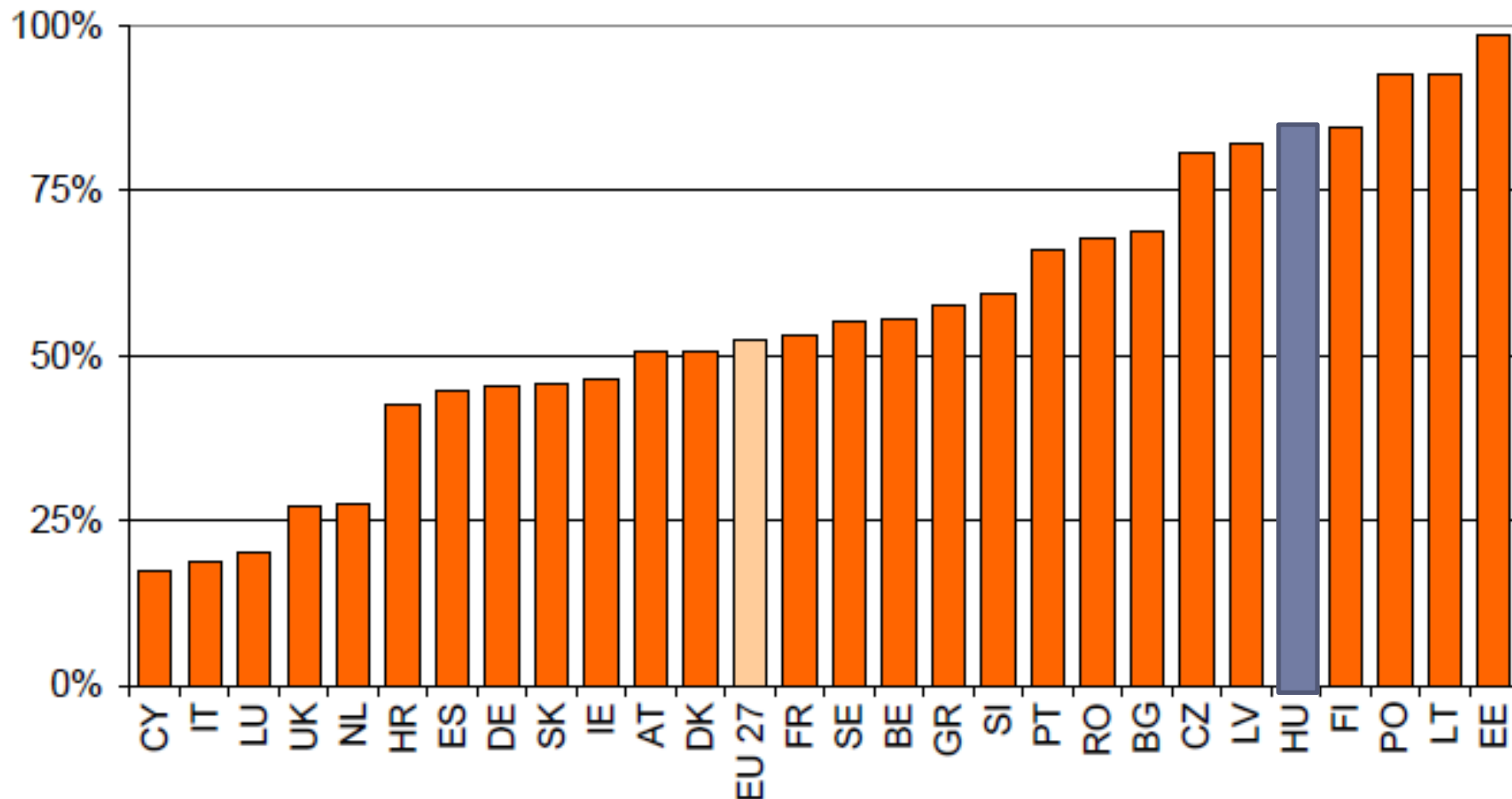
# Use of renewable energy sources for heat production (TJ)



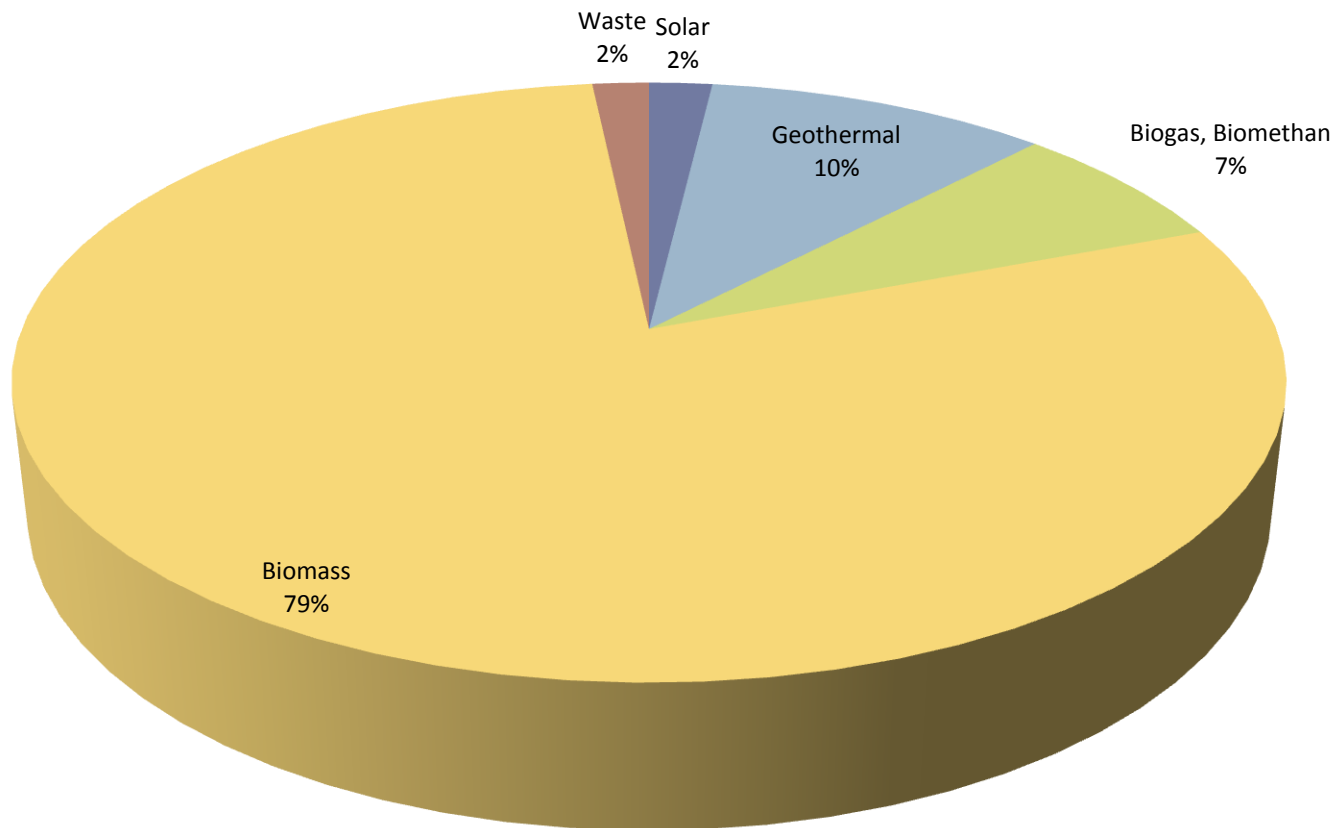
*Total actual contribution from each renewable energy technology in Hungary for the shares of energy from renewable resources in **electricity** (MW)*



# Share of wood energy in total renewable energy (EU 27)



# Renewable energy consumption by 2020 (experts' estimation)



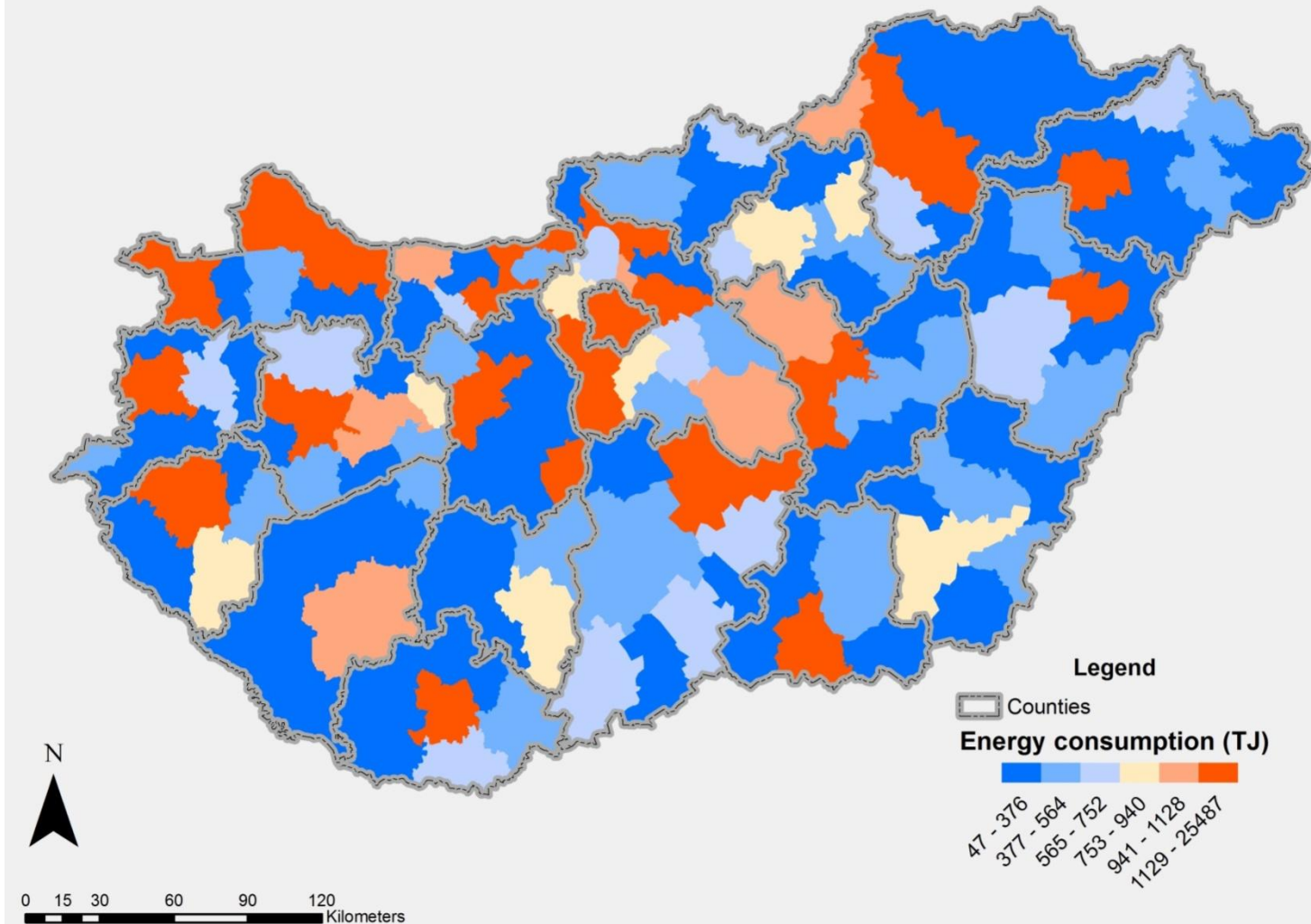
# TERRITORIAL POTENTIALS



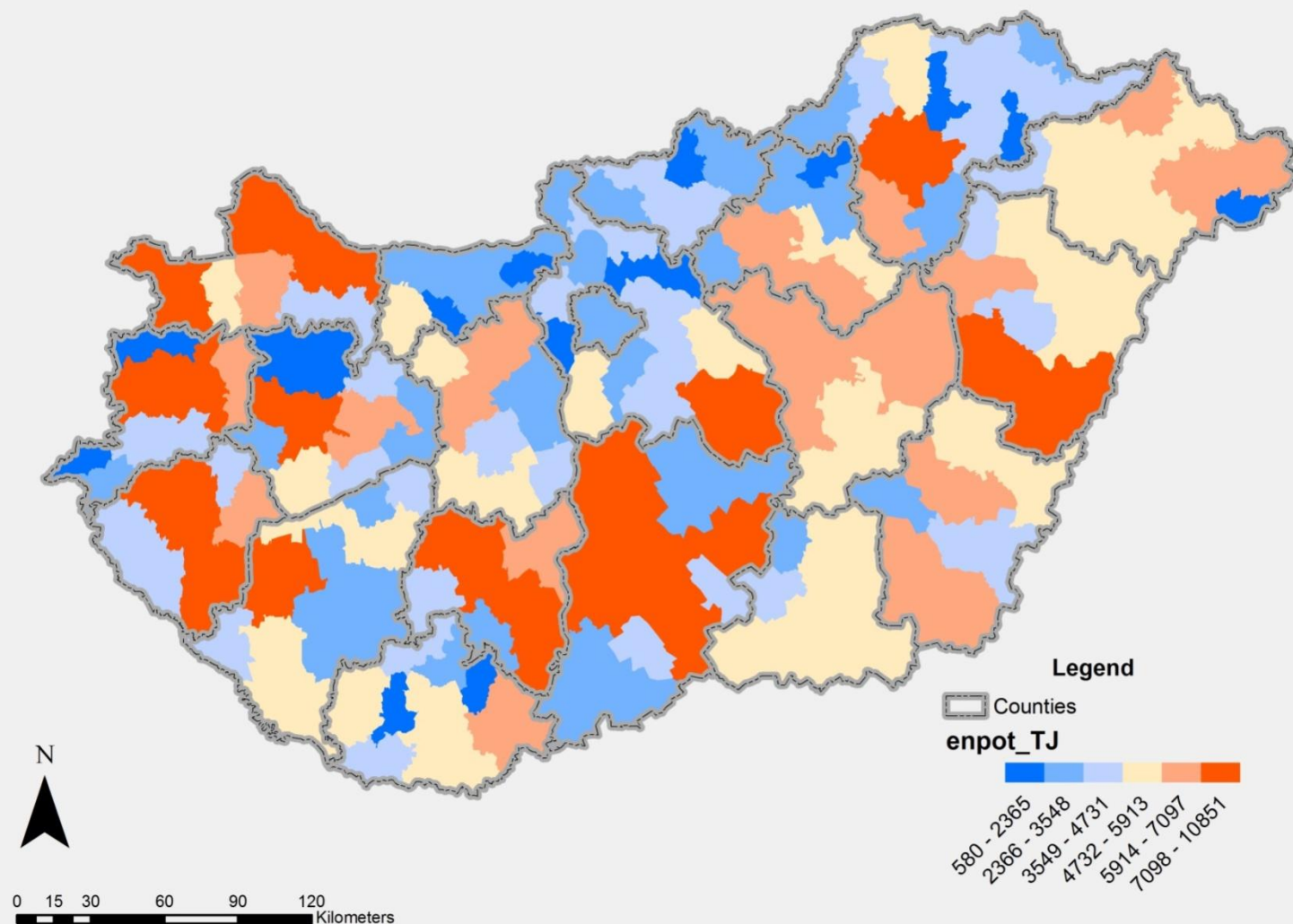
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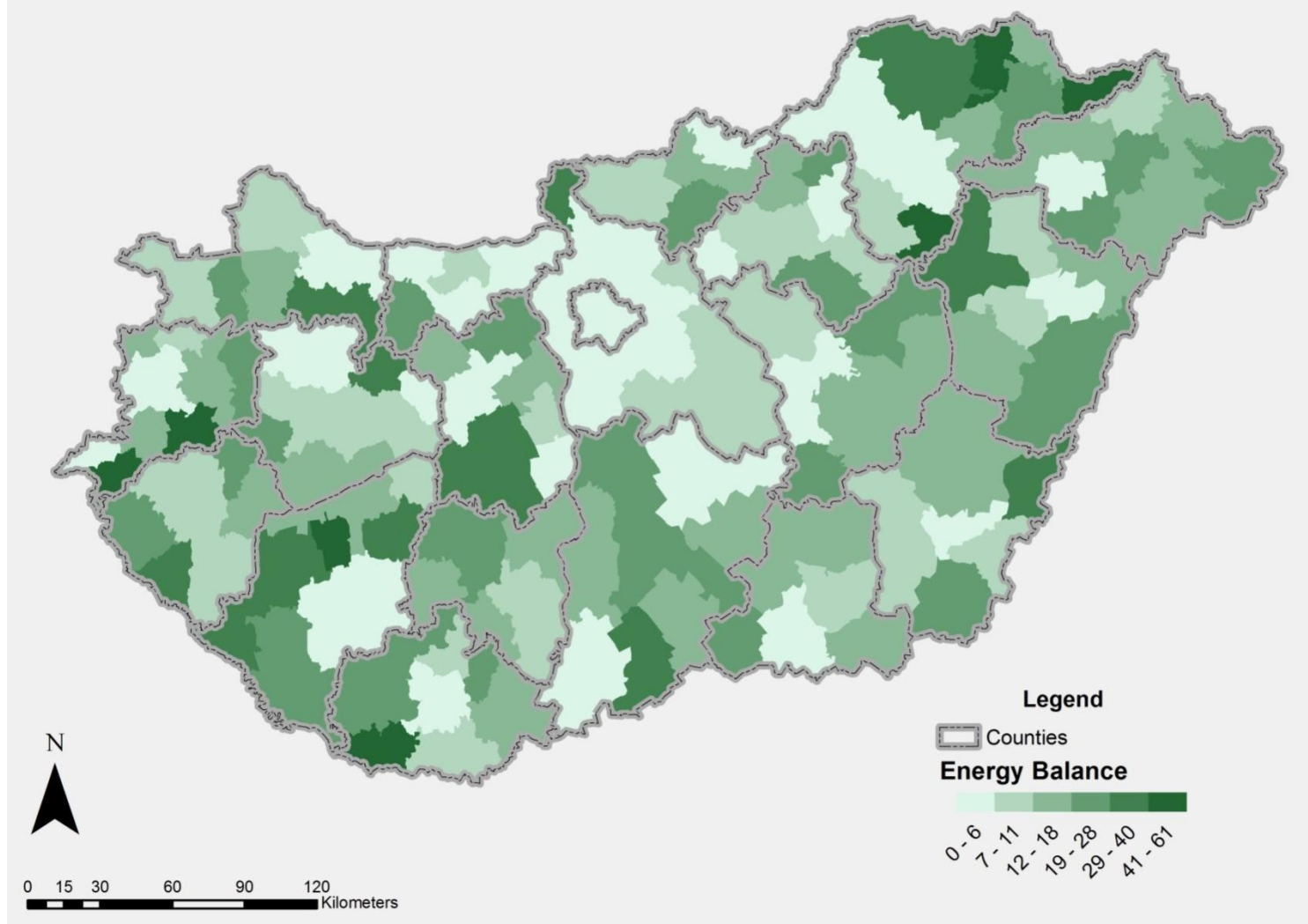
# Energy consumption



# Potential renewable energy



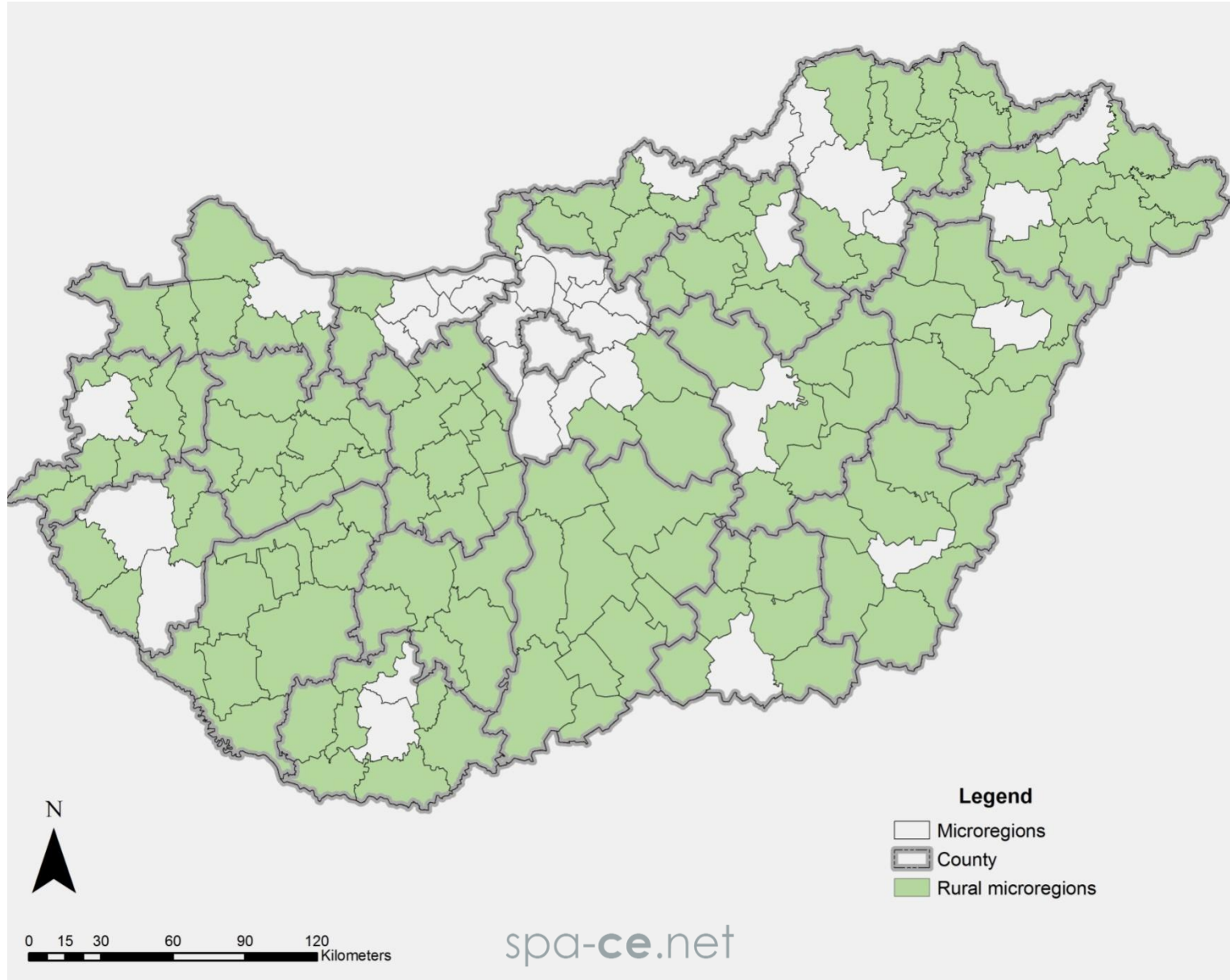
# Renewable balance in Hungary



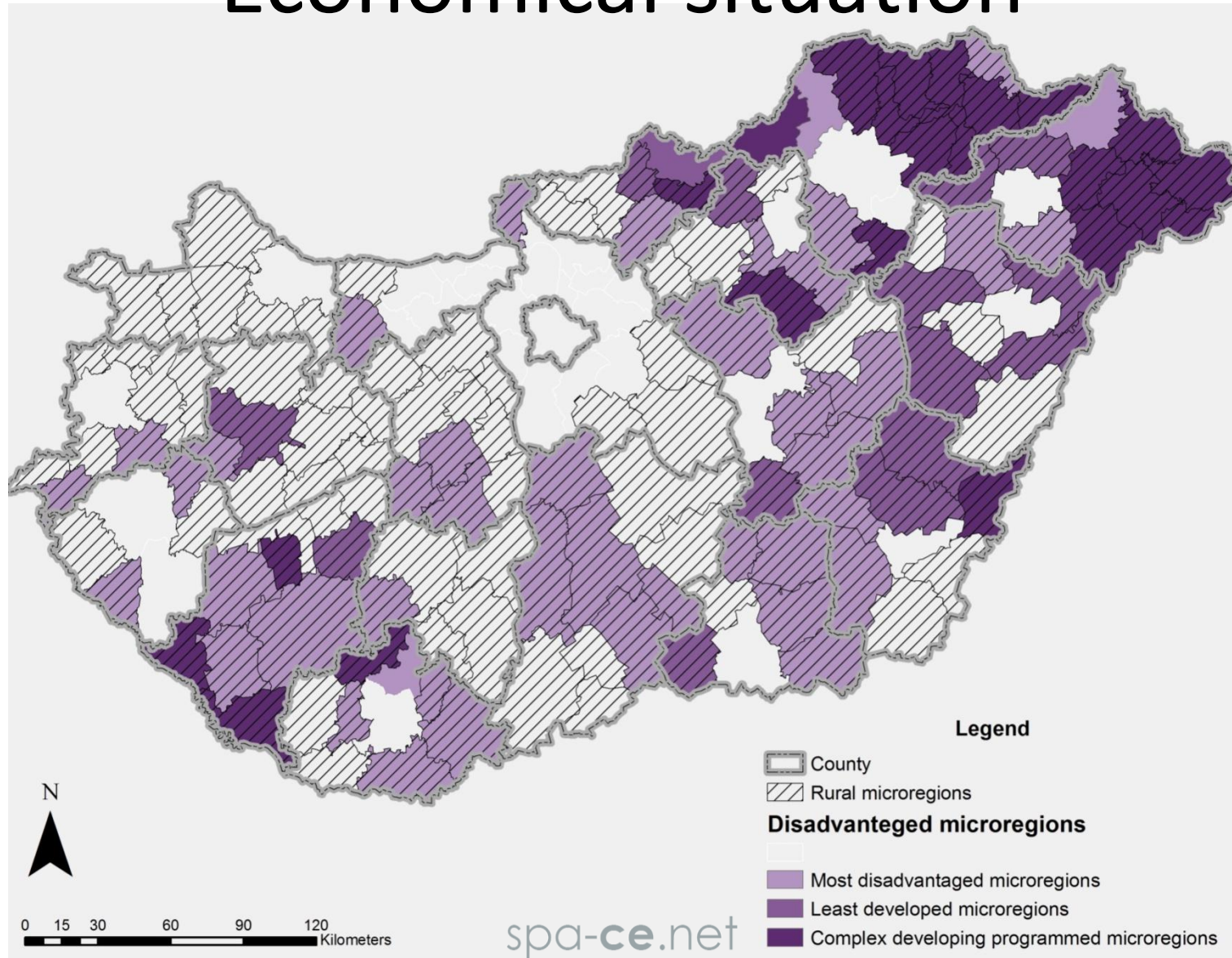
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# The „rural country”



# Economical situation



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Case Study

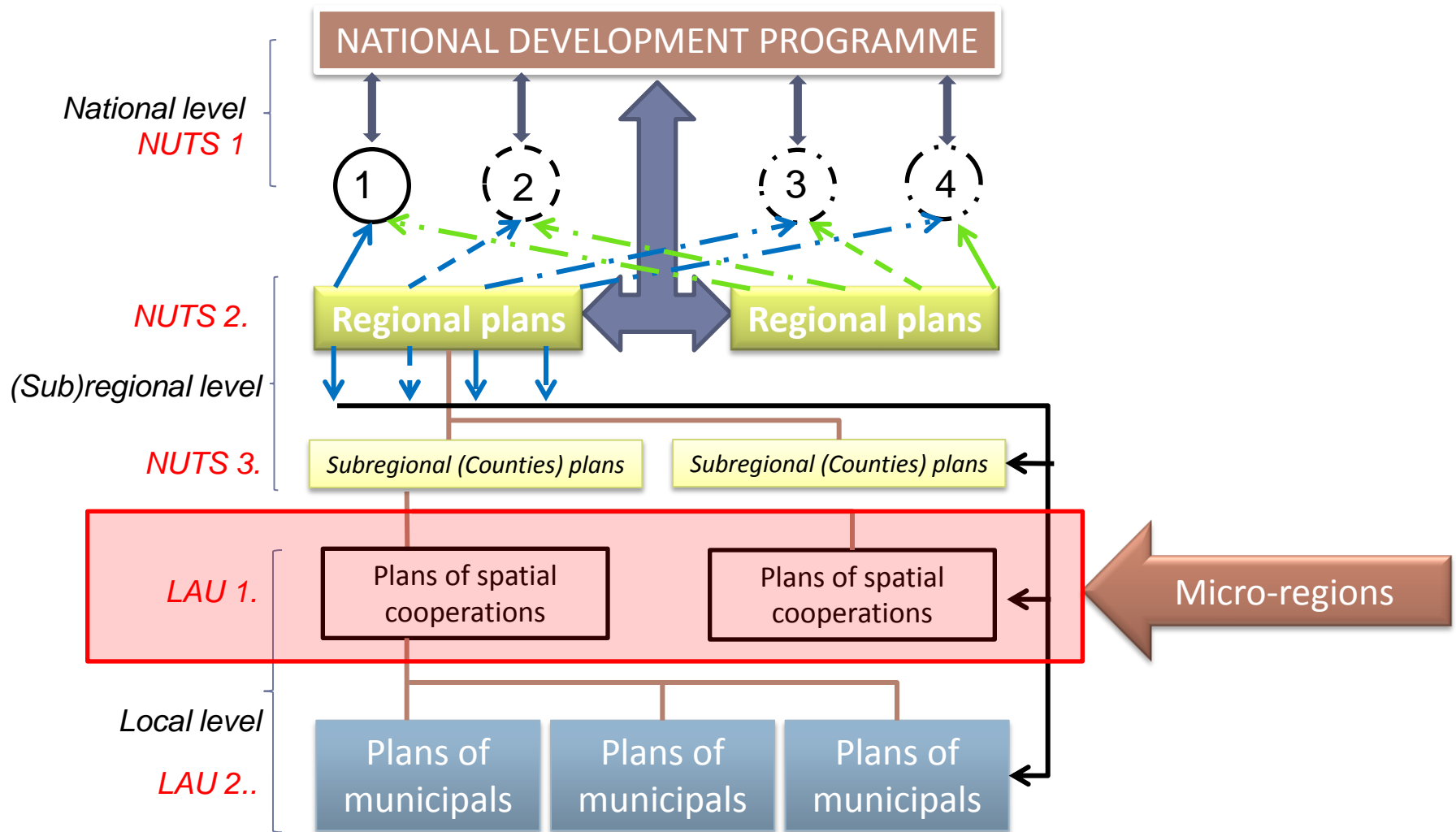
# RENEWABLES IN THE SOUTH-DANUBIAN REGION – EVALUATION THE ROLE OF RENEWABLE ENERGY IN THE SPATIAL DEVELOPMENTS



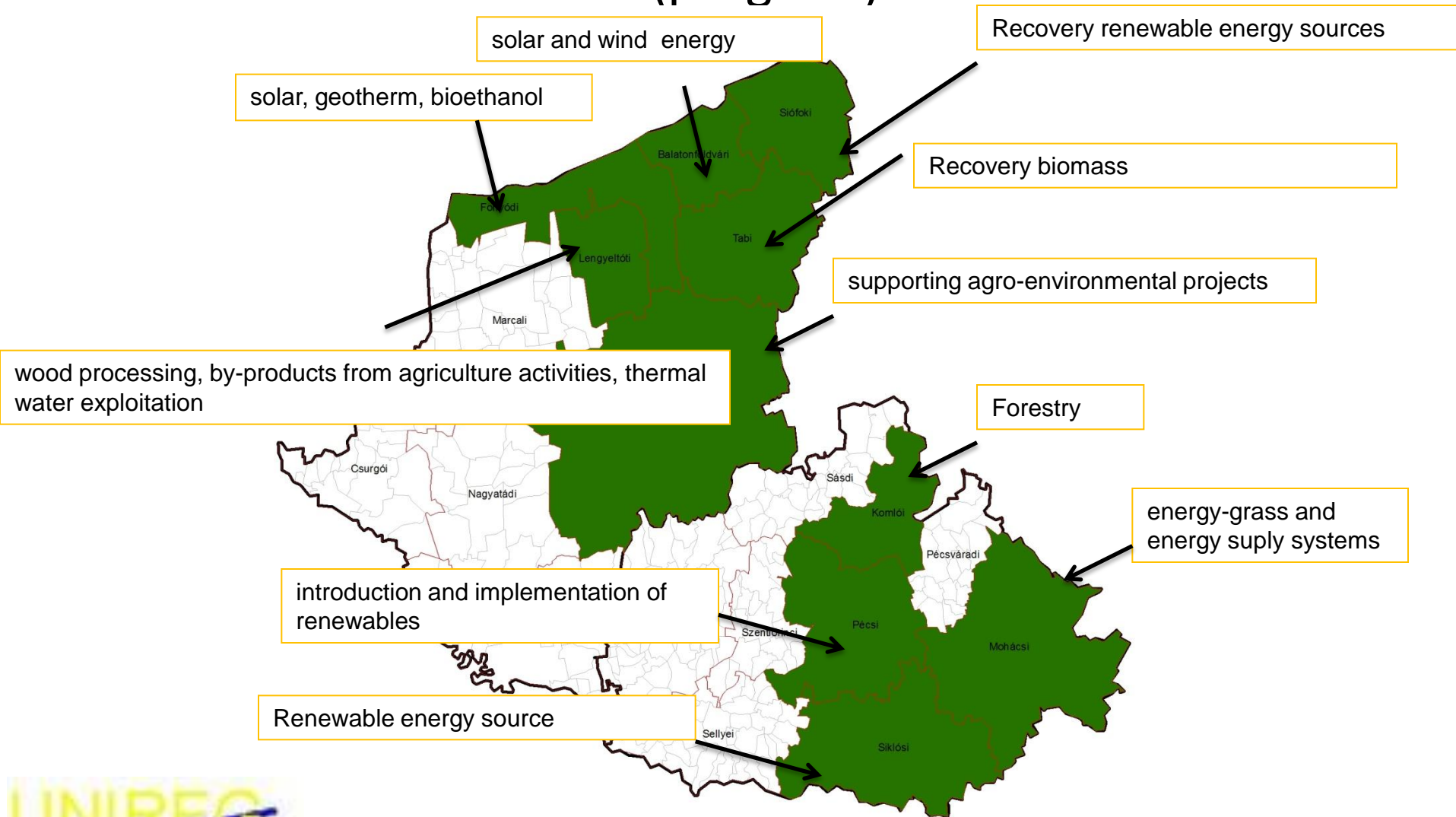
MINISTARSTVO REGIONALNOG RAZVOJA,  
ŠUMARSTVA I VODNOGA GOSPODARSTVA  
REPUBLIKA HRVATSKA



# Scheme of the Hungarian spatial development planning

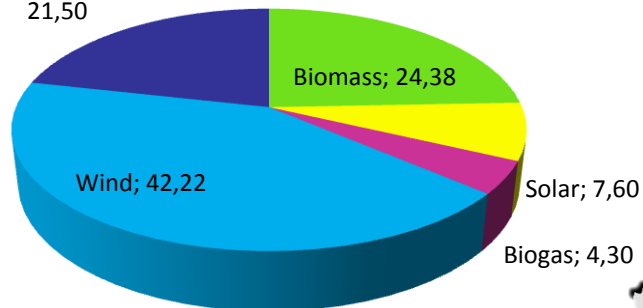


# Renewables in the microregions (program)-level



# Potential renewables (micro-regions)

Geothermal;  
21,50



Jelmagyarázat

Microregions



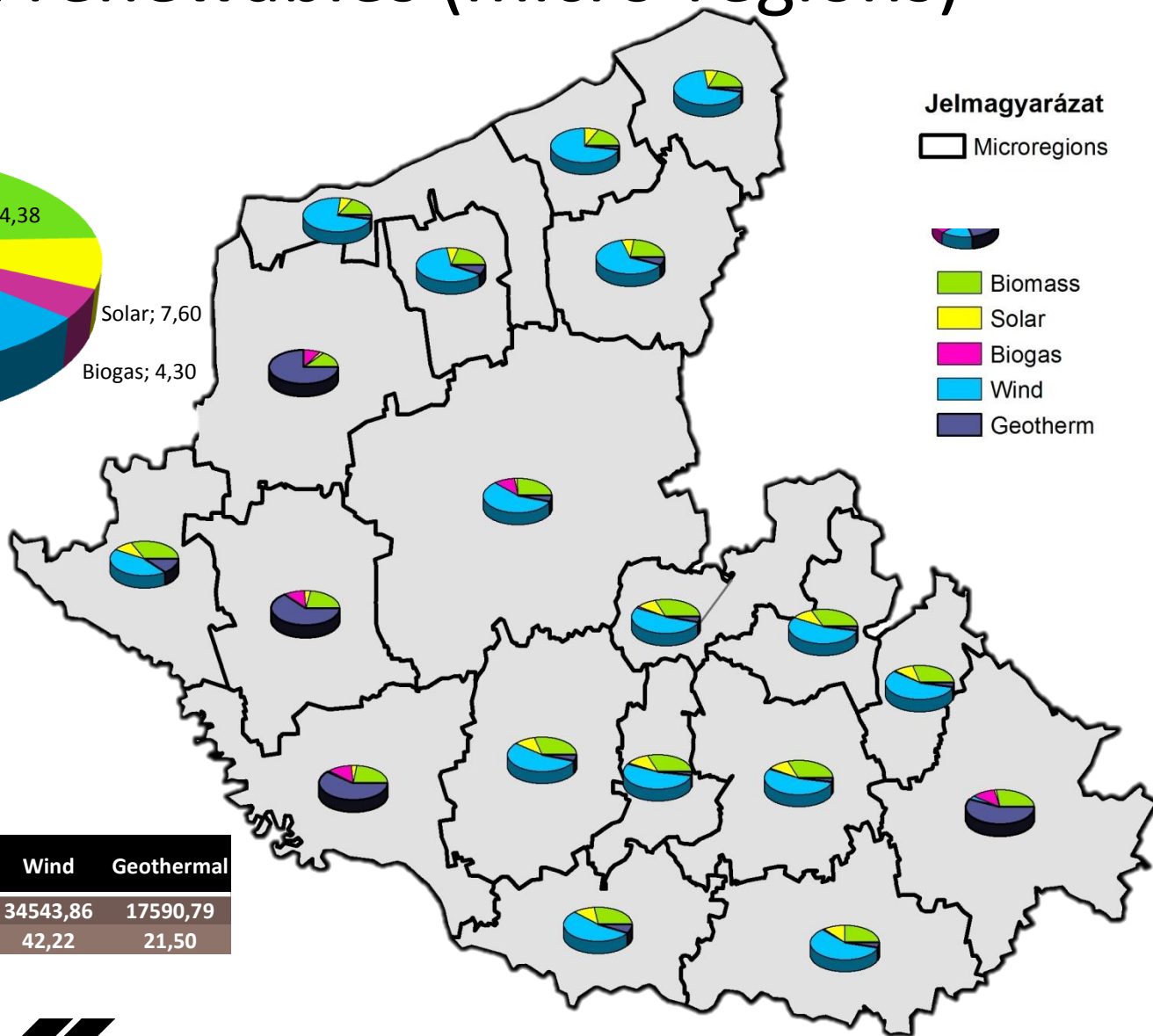
Biomass

Solar

Biogas

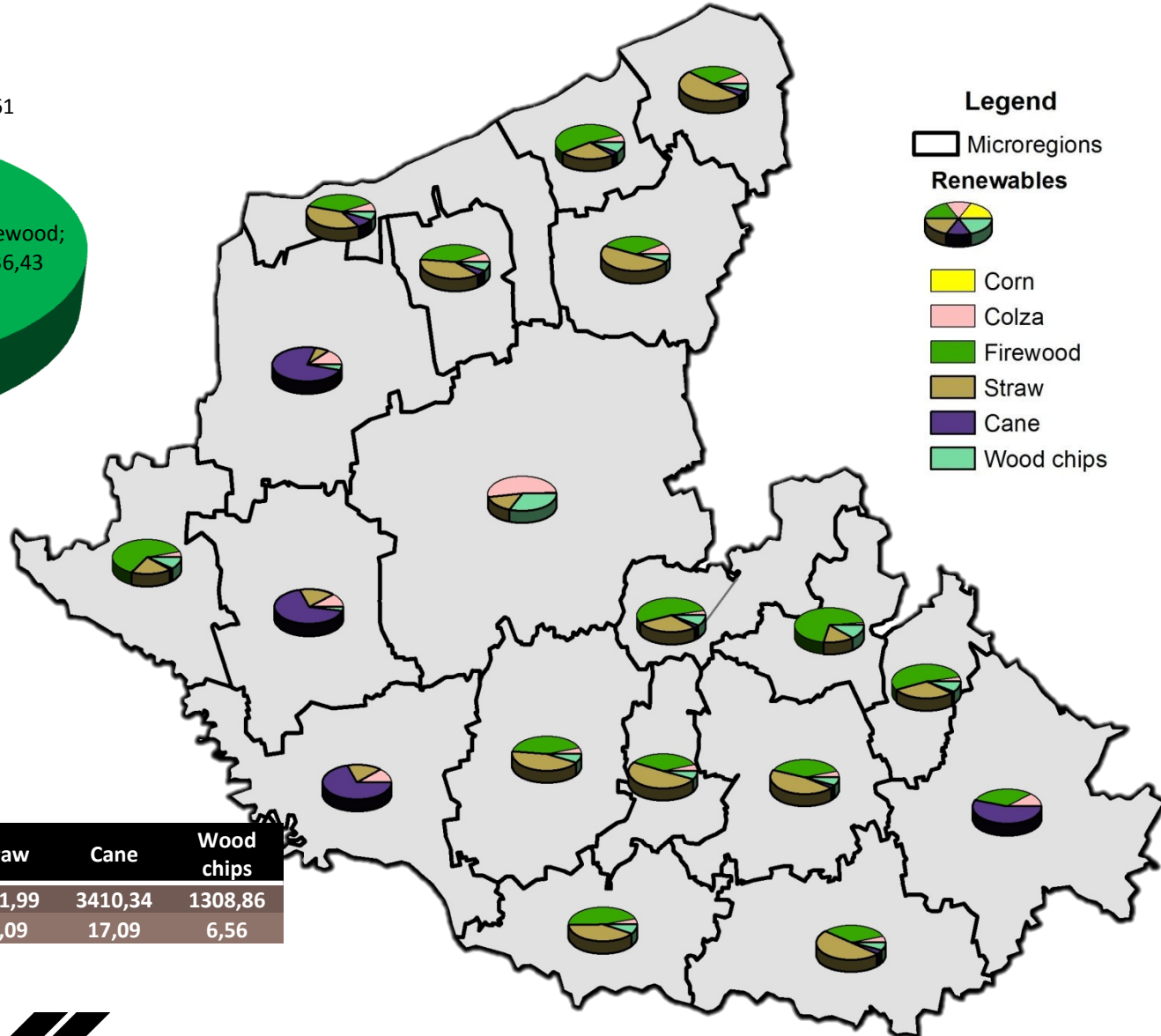
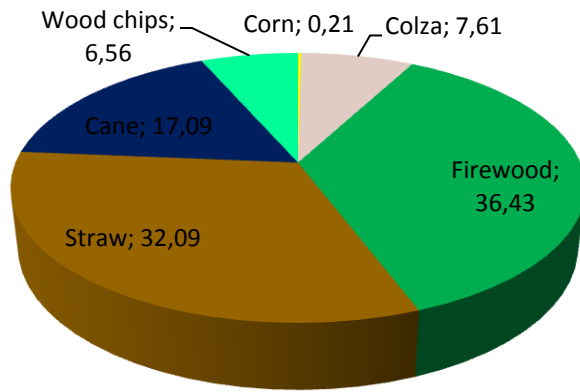
Wind

Geotherm



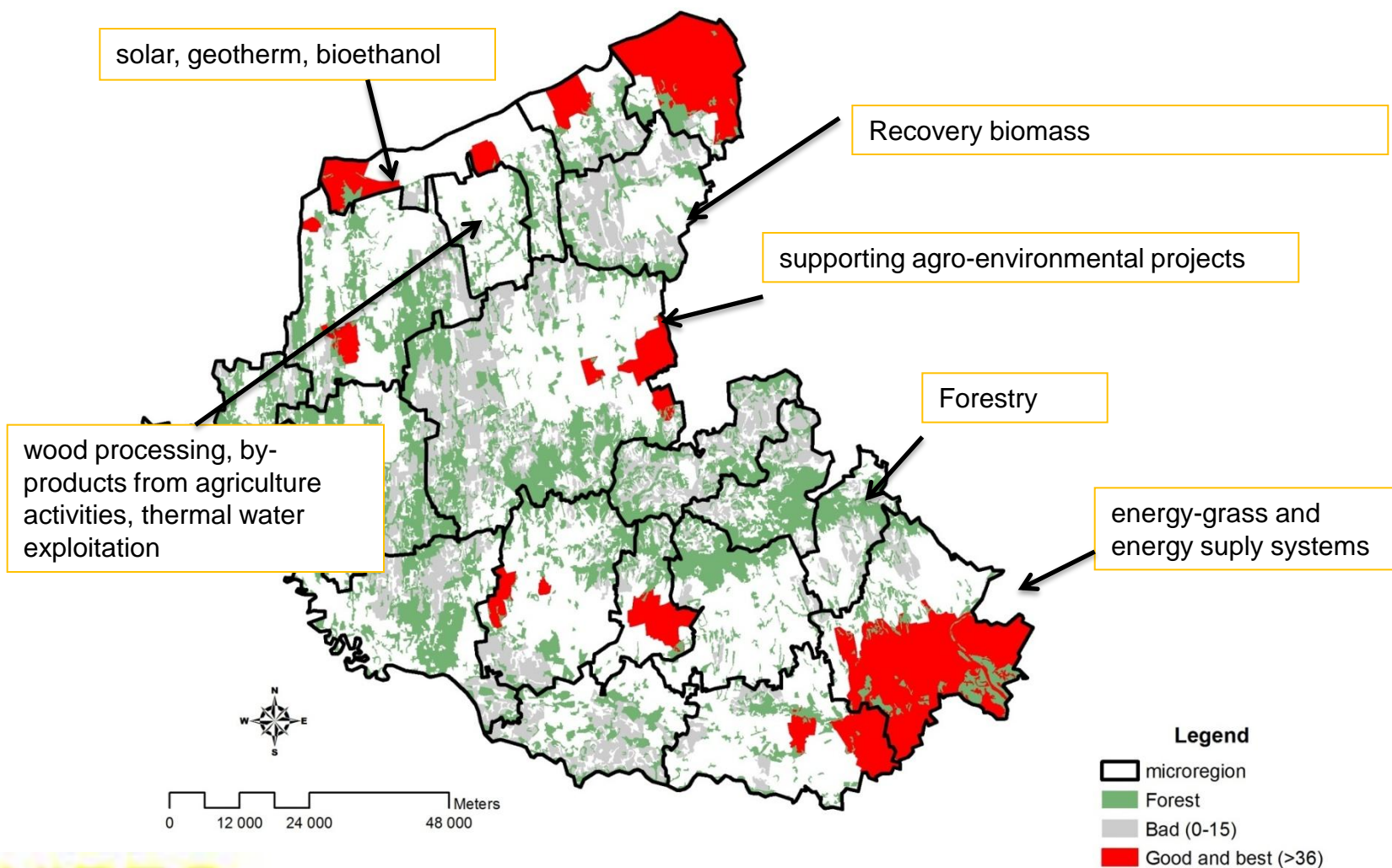
|    | Biomass  | Solar   | Biogas  | Wind     | Geothermal |
|----|----------|---------|---------|----------|------------|
| TJ | 19950,07 | 6219,76 | 3521,94 | 34543,86 | 17590,79   |
| %  | 24,38    | 7,60    | 4,30    | 42,22    | 21,50      |

# Biomass potential (microregions)



|    | Corn  | Colza   | Firewood | Straw   | Cane    | Wood chips |
|----|-------|---------|----------|---------|---------|------------|
| TJ | 41,80 | 1518,40 | 7268,68  | 6401,99 | 3410,34 | 1308,86    |
| %  | 0,21  | 7,61    | 36,43    | 32,09   | 17,09   | 6,56       |

# Land-use/cover and biomass producing



# Challenges and opportunities in the green sectors

- To detect the „green sectors” **spatial properties**
- to analyse and evaluate the main **effects**
- **Harmonization** the spatial aspects of certain sectoral policies: spatial specialities



# Perspectives

- Strategies of the integrated (spatial/urban/rural) development policy:
  - (1) Urban-rural system approach;
  - (2) Spatial and also sectoral integrated;
  - (3) Decreased quantity of pollutants.





**THANK YOU FOR YOUR  
ATTENTION!**