



**AgroRES**  
Interreg Europe



European Union  
European Regional  
Development Fund

# Conclusions after the self-assessment of RES development in the Lubelskie Voivodeship

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# Introduction

- Regional socio-economic framework
- Evolution of the spread of renewable energies in LV
- Local policies and actions for the pursuit main goals of the Europe strategy
- Risks and opportunities from policies and market for the spread of renewable energy in agriculture
- Conclusions

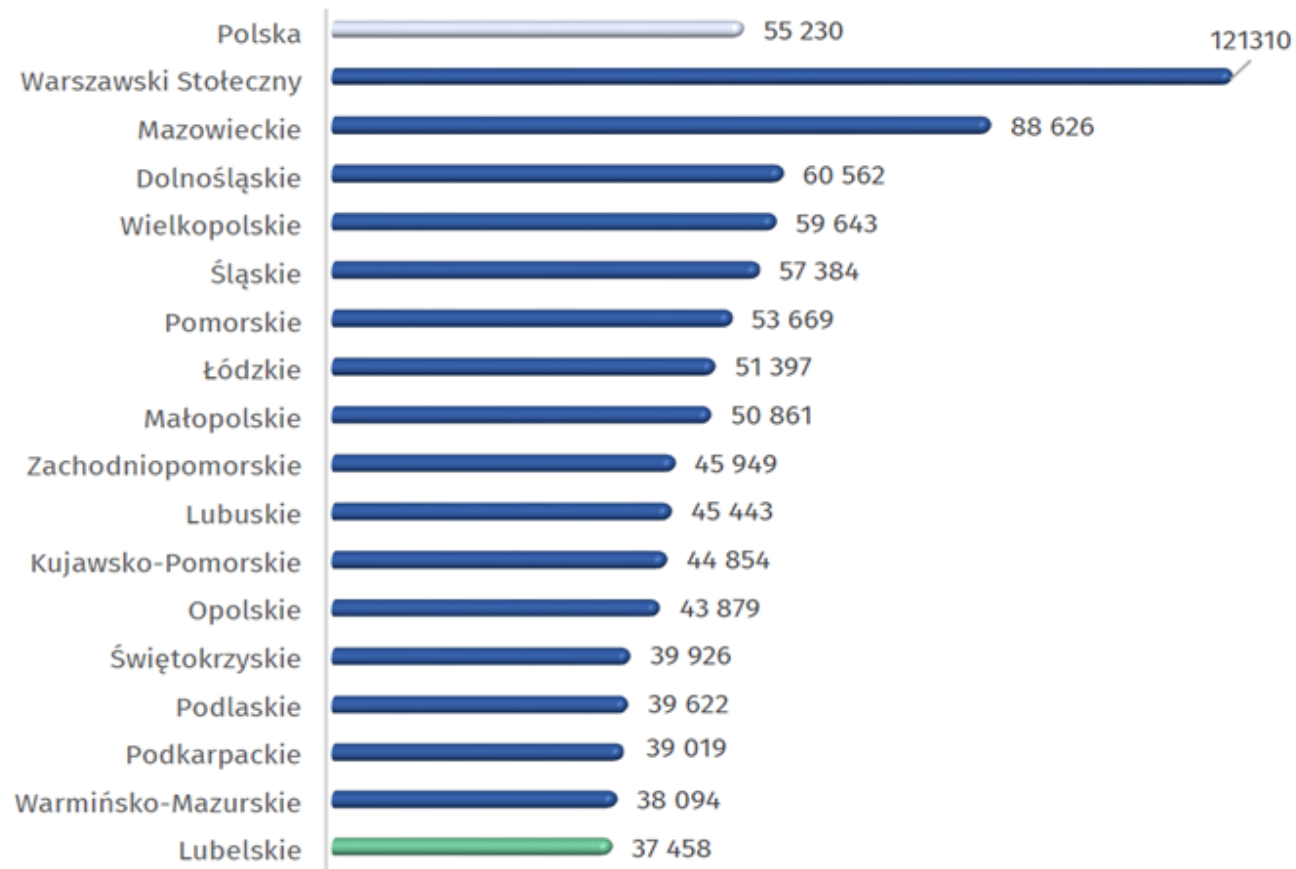
# Regional socio-economic framework



|   |              |                       |
|---|--------------|-----------------------|
| Region                                  |              | Lubelskie Voivodeship |
| Surface                                 |              | 2 512 thous. ha       |
| Population                              | Women        | 1 086 422             |
|   | Men          | 1 021 848             |
|   | <b>Total</b> | <b>2 108 270</b>      |
| Regional GDP                            |              | 17,491 mln Euro       |
| Pro-capite GDP                          |              | 8,296 thous. Euro     |
| Average net household income per capita |              | 450,54 Euro           |

# Regional socio-economic framework

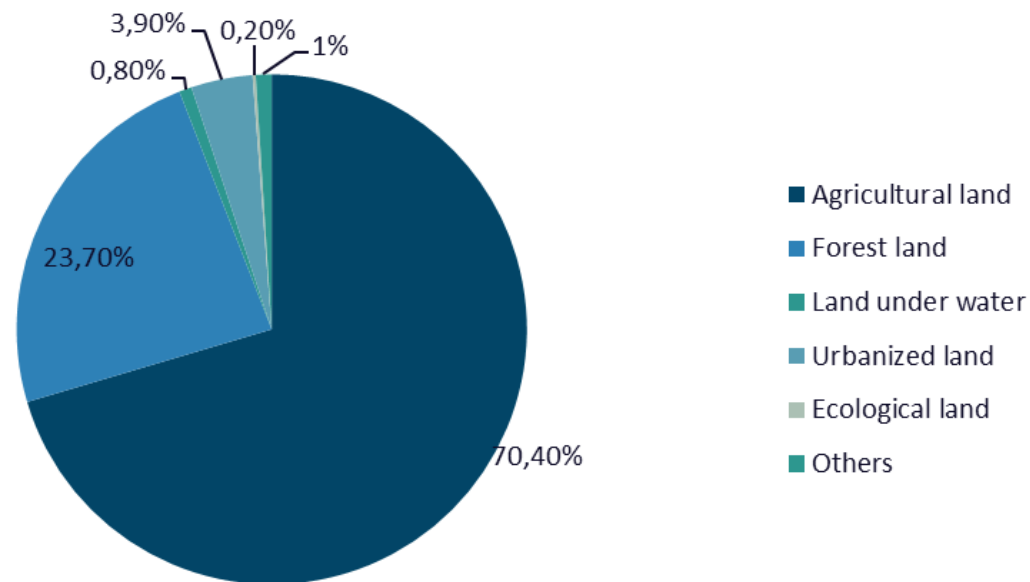
## Gross domestic product per capita by regions in 2018 in PLN



# Regional socio-economic framework

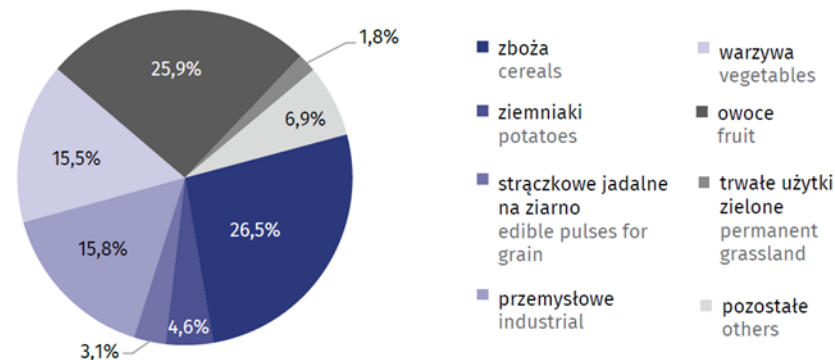
|                              |                   |
|------------------------------|-------------------|
| Total land area              | 2 512,0 thous. ha |
| Utilized agricultural area   | 1 454,1 thous. ha |
| Good agricultural conditions | 1 443,4 thous. ha |

## The area of the Lubelskie Voivodeship

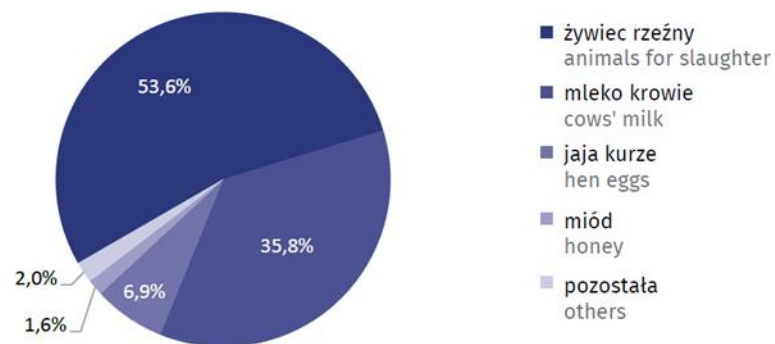


# Regional socio-economic framework

**Struktura globalnej produkcji roślinnej w województwie lubelskim w 2018 r.**  
Structure of gross crop output in lubelskie voivodship in 2018



**Struktura globalnej produkcji zwierzęcej w województwie lubelskim w 2018 r.**  
Structure of gross animal output in lubelskie voivodship in 2018

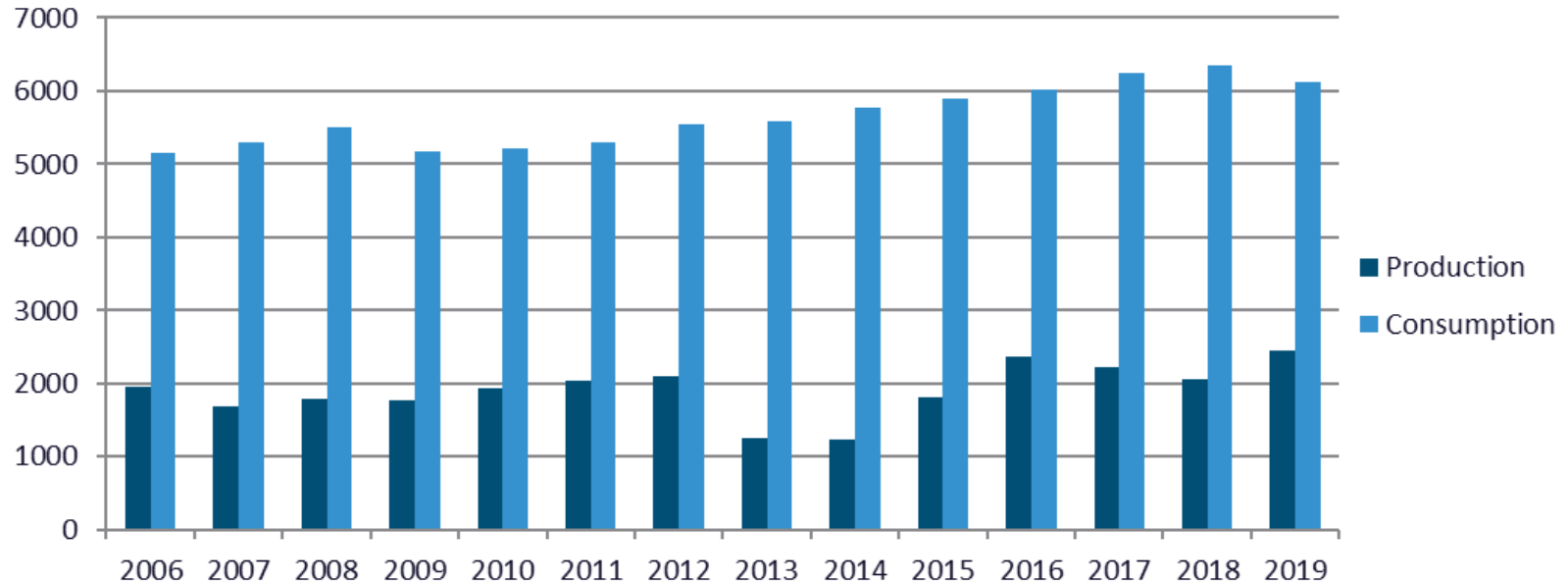


|                                    |              |
|------------------------------------|--------------|
| Number of farms                    | 172,6 thous. |
| Average farm size                  | 8,43 ha      |
| Number of employees in agriculture | 305,4 thous. |
| Livestock unit                     | 813,3 thous. |
| Number of agritourism farms        | 116          |
| Number of accommodation places     | 2 247        |

# Evolution of the spread of renewable energies in LV

Electricity production in the Lubelskie Voivodeship in 2019 amounted to **2,443.6** GWh, and the total production in the country amounted to **163,988.5** GWh. Electricity consumption in the Lubelskie Voivodeship in 2019 amounted to **6,117** GWh, and the total consumption in the country was **165,661** GWh.

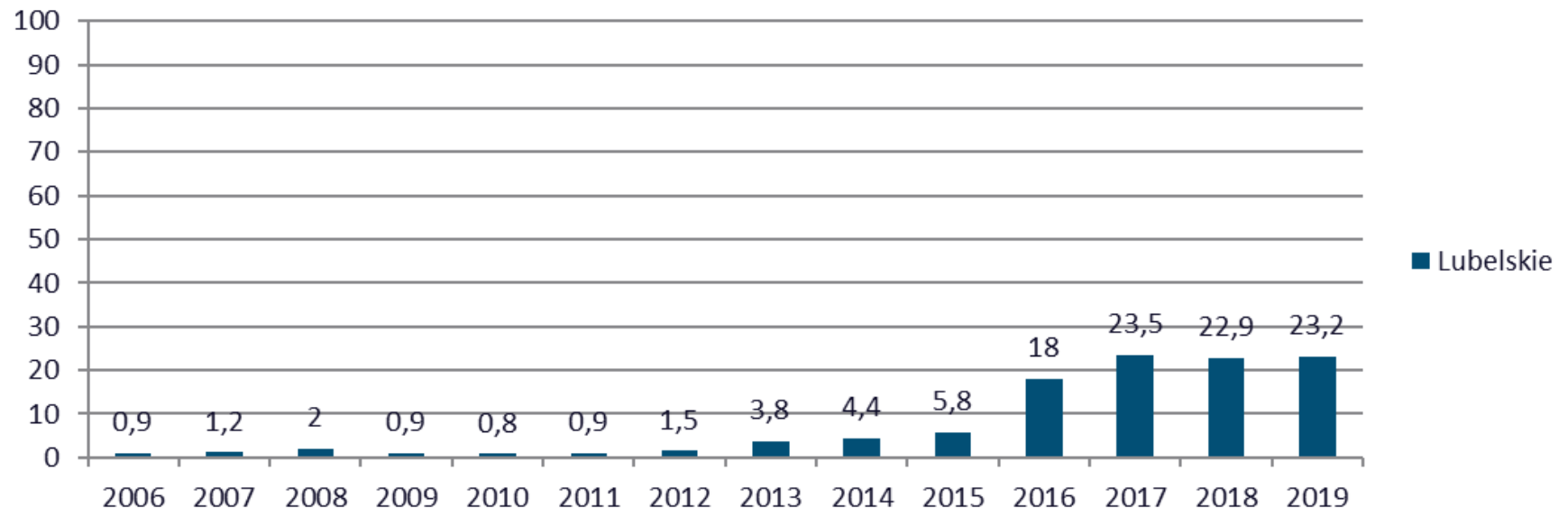
## Electricity production and consumption in Lubelskie Voivodeship in 2019 [GWh]



# Evolution of the spread of renewable energies in LV

The share of renewable energy in total electricity production in the region has significantly increased over the last dozen or so years and in 2019 it amounted to **23.2%** and was higher than the average value for the country, which was **15.5%**.

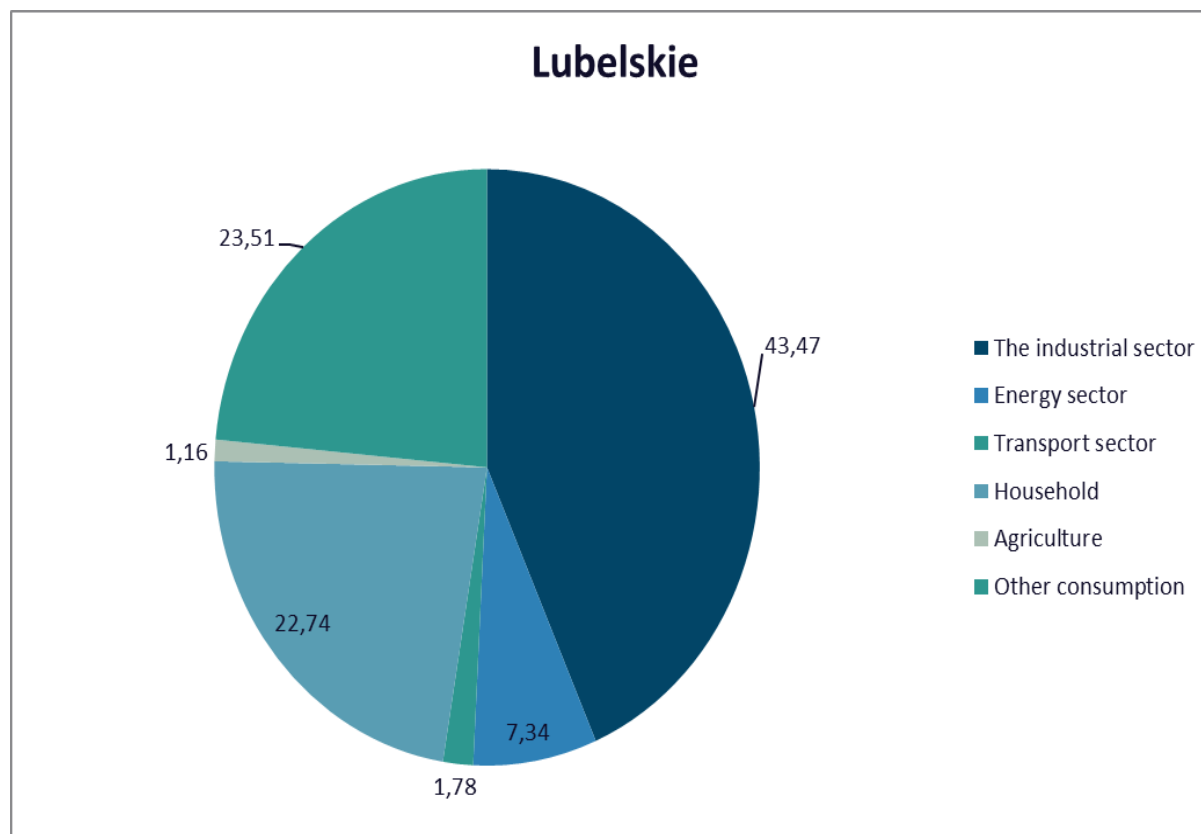
## Share of renewable energy in total electricity production in LV in 2019 [%]





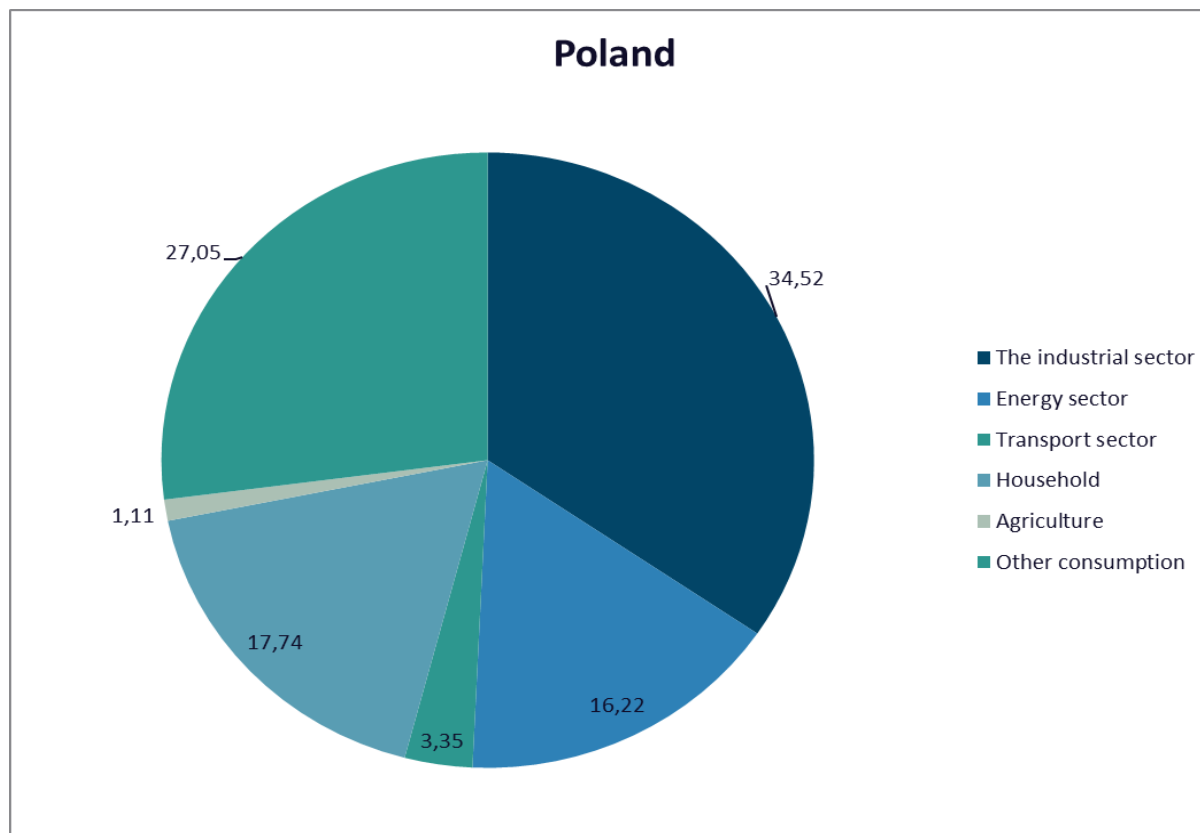
# Evolution of the spread of renewable energies in LV

The percentage share of energy consumption by sectors in the Lubelskie Voivodeship 6 117 GWh and in the country 165 661 GWh in 2019.

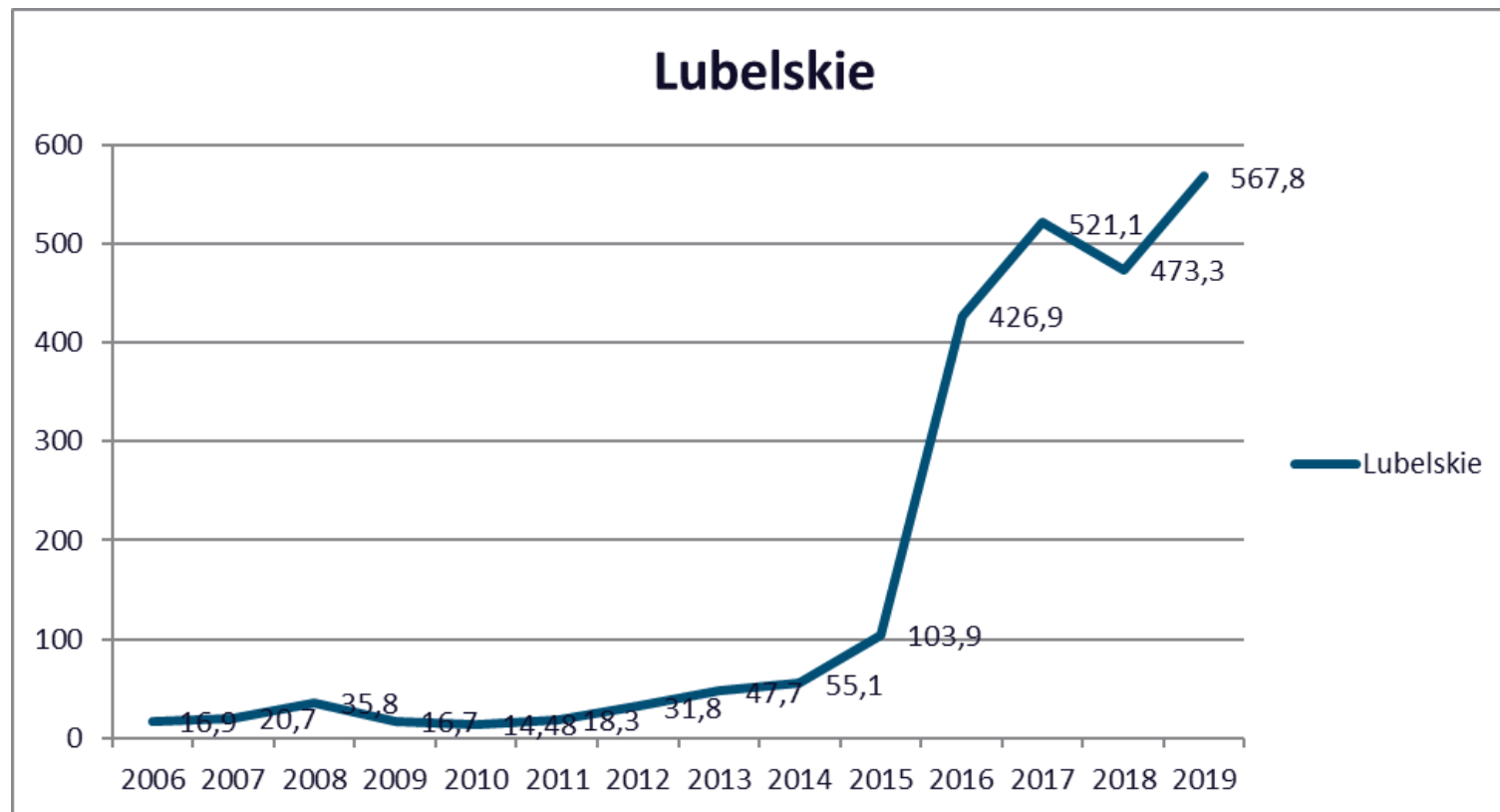


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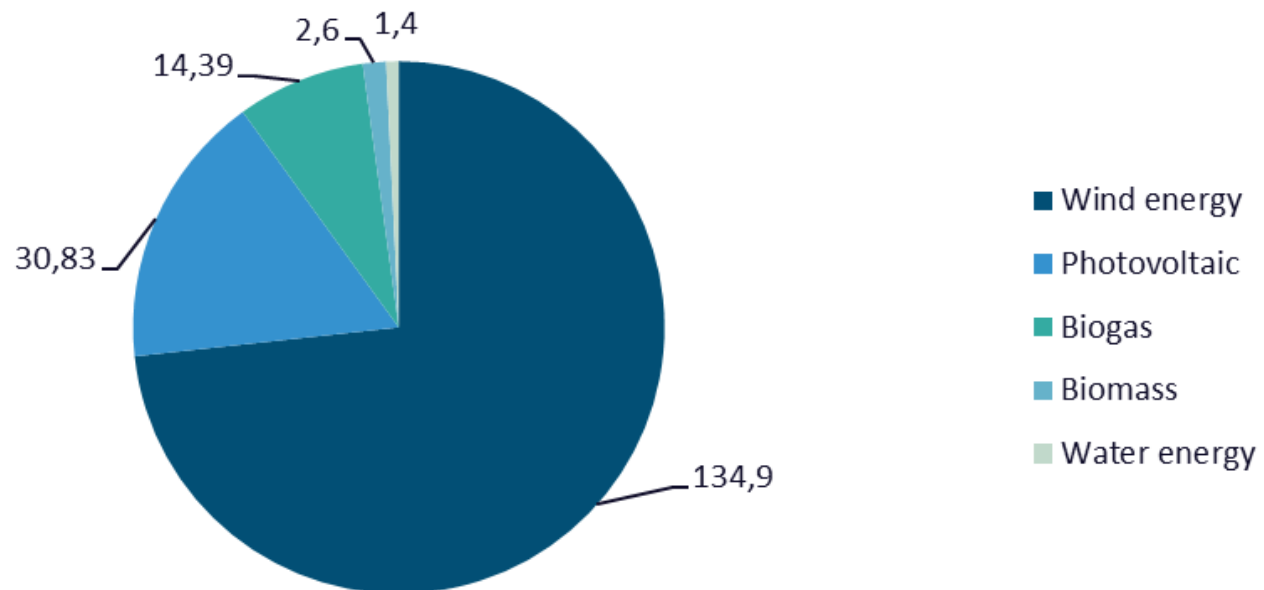


# Evolution of the spread of renewable energies in LV



# Evolution of the spread of renewable energies in LV

## Capacity of installations producing electricity from RES in the Lubelskie in 2016 [MW]



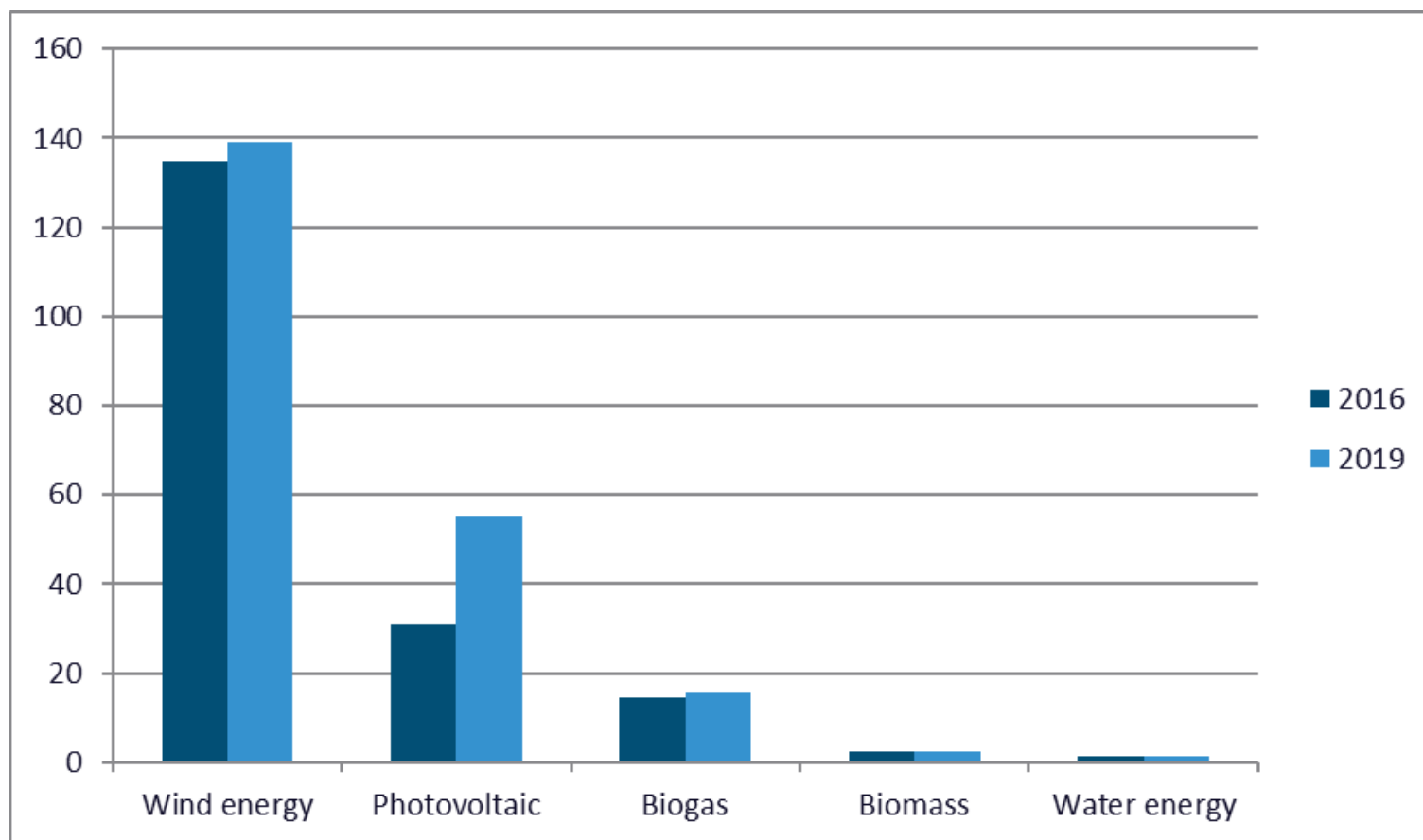
# Evolution of the spread of renewable energies in LV

Renewable energy installations in Lubelskie Voivodeship, required to report to the Energy Regulatory Office (as of December 31, 2019)

|              | Number of installations | Installed power [MW] |
|--------------|-------------------------|----------------------|
| Wind energy  | 12                      | 138,900              |
| Photovoltaic | 106                     | 55,116               |
| Biogas       | 16                      | 15,432               |
| Biomass      | 1                       | 2,600                |
| Water energy | 23                      | 1,410                |
| Total        | 159                     | 213,458              |

# Evolution of the spread of renewable energies in LV

Comparison of the OZE instalation capacity



# Local policies and actions for the pursuit main goals of the Europe strategy

## National documents

- *Polish Energy Policy until 2030*
- *The Strategy for Responsible Development*
- *The National Energy Efficiency Action Plan for Poland*

# Local policies and actions for the pursuit main goals of the Europe strategy

## Regional documents

- *The Development Strategy of the Lubelskie Voivodeship for 2014-2020*
- *The Spatial Development Plan for the Lubelskie Voivodeship*
- *The Program for the Development of Renewable Energy Sources for the Lubelskie Voivodeship*



# SWOT analysis



- reduction of greenhouse gas emissions and air pollutants related to the reduction of the share of energy from fossil sources (environmental and climate protection),
- fulfillment of EU requirements as well as national plans and targets for increasing the share of renewable energy sources in the energy balance and reducing CO2 emissions,
- increasing the country's energy security through the diversification and decentralization of energy sources,
- the use of local energy sources (increasing the energy security of the region),

# SWOT analysis



- frequent changes in regulations,
- limited possibilities of connecting renewable energy installations to local electricity, gas and heating networks,
- low public awareness of RES,
- limited possibilities of connecting new electricity producers to the grid,

# SWOT analysis



OPPORTUNITIES

- development of the local market,
- production of biomass processing and equipment,
- improvement of energy security through the diversification and decentralization of electricity production,
- increasing social awareness of RES and EE thanks to actions,
- new lines of production in agriculture,
- increase in employment, especially in rural areas,
- development of RES-related clusters,

# SWOT analysis



THREATS

- lack of social acceptance for new technologies,
- the activities of the energy lobby based on mine sources,
- potentially large fluctuations in the prices of substrates from agriculture,

# Conclusions

Initial conclusions after the self-assessment:

- Lubelskie Voivodeship has good conditions for renewable energy,
- there is still a potential for the development of photovoltaics and bigas plants,
- increase in installed RES capacity,
- socio-economic changes in rural areas towards a change in resource use,
- final conclusions will be drawn up in cooperation with the stakeholders of the AgroRES project.



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# Thank You!



*Project smedia*