

GRAD LIVNO

Bosnia and Herzegovina



**Innovative Technologies for
Sustainable Mobility and Energy
Efficiency in Rural Contexts**



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City of Livno, Bosnia and Herzegovina

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BOSNIA AND HERZEGOVINA- rural area



City of Livno – Between Tradition and Potential



- ▶ The City of Livno is located in the southwest of Bosnia and Herzegovina, covering an area of approximately 994 km² and home to around 30,000 inhabitants.
- ▶ It includes a large number of rural settlements scattered across mountainous and karst landscapes.
- ▶ Livno is known for its natural beauty, Mountains rivers, lakes, karst fields and wild horses that attract visitors, but it also faces challenges related to access to public services, transport connectivity, and energy resources.
- ▶ This combination makes Livno an ideal candidate for developing sustainable solutions in rural settings.



Key Challenges in Mobility and Energy Efficiency

Mobility

- ▶ Transport connectivity: Total length of road network - 400.30 km,
- ▶ A lot of money is needed for the reconstruction of roads, which are often in bad condition
- ▶ Dependence on private vehicles due to a lack of public transport, especially in distant villages
- ▶ Low frequency of bus lines that connects town with villages
- ▶ A small number of well-maintained bicycle paths



Energy Efficiency

- ▶ High energy consumption in public buildings and households, often without thermal insulation
- ▶ Limited local capacities and documentation for renewable energy sources
- ▶ Lack of financial resources, as sustainable development projects often require significant investments, while local budgets and also household budgets often cannot provide sufficient funds for the realization of such initiatives.



Achievements So Far – Energy Efficiency

- Livno was ranked among energy-efficient cities in Bosnia and Herzegovina a few years ago by signing the Covenant of Mayors in Brussels, thereby joining European cities committed to energy savings.
- An Action Plan for Sustainable Energy Development (SEAP) and The Action Plan for Sustainable Energy Management and Adaptation to Climate Change (SECAP) of the City of Livno for the period up to 2030 was created
- Installation of energy-efficient LED street lighting in urban area, with the value of project is approximately €300,000.

It was funded by the UNDP, the Environment Protection Fund of the Federation of Bosnia





- For several years, we have been implementing energy efficiency projects on public buildings, especially in school buildings
- New private houses and buildings apply energy efficiency measurements during construction itself



- In collaboration with the United Nations Development Programme in Bosnia and Herzegovina (UNDP), within the 'Decarbonization of the Residential Sector' project, funded by Sweden, a Study on Energy Efficiency in the Residential Sector was developed in 2024.
- The document sets the foundation for measures needed to mitigate and adapt to climate change, with the goal of reducing greenhouse gas emissions by 40% by 2030.
- The goal is to create favorable frameworks for investments in energy efficiency of residential buildings



Achievements So Far – Mobility

- Over 100 kilometers of bicycle paths are marked with road signs and information boards
- Bus lines are provided at twice a day in almost all villages in the Livno area
- built ring roads to divert traffic that used to go through the urban center



Innovative Technologies – What Could Be Applied in Livno

- **Smart transport systems:** apps for tracking and requesting transport-on-demand in rural areas.
- **E-vehicles and charging stations:** electric vehicles for city services and pilot rural transport solutions.
- **Solar panels on public buildings:** schools, health centers, and cultural institutions.
- **Smart street lighting:** sensors for consumption control and automatic light adjustment where possible



Livno – Development Directions and Future Opportunities

- **E-mobility development:** procurement of electric buses for rural areas or electric vehicles for city services .
- **Linking tourism with sustainable mobility:** creating more tourist routes accessible by bike or foot.
- **Utilizing renewable energy:** solar power for schools and health institutions.
- **Partnerships for EU projects:** through GreenMove, Interreg, and other programs.
- **Community involvement:** public campaigns for energy efficiency and citizen participation.



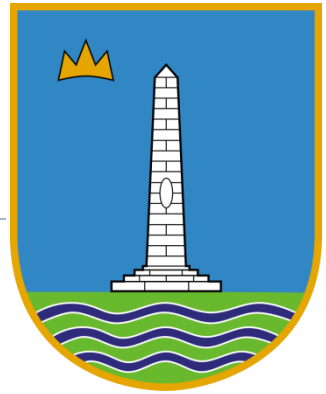
Conclusion – Livno as a Ready Partner for Sustainable Innovation

Livno is an example of a region where rural challenges can become opportunities for innovation.

By strengthening local capacities, cooperating with European partners, and implementing technologies tailored to the local context, significant improvements in mobility and energy efficiency are achievable.

Livno is ready to be a pilot city for solutions applicable in other rural areas across Europe.





Thank you for your attention.

