



European Union  
European Regional  
Development Fund



# Shaping the Low Carbon Future

## ZEROCO2 Final Conference

19. September 2019, Marseille

**Roman Kekec**

Local Energy Agency Spodnje Podravje

[Roman.kekec@lea-ptuj.si](mailto:Roman.kekec@lea-ptuj.si)



19 September March 2019 | ZEROCO2 Final Conference



European Union  
European Regional  
Development Fund



# ZEROCO2

## PROMOTION OF NEAR ZERO CO2 EMISSION BUILDINGS DUE TO ENERGY USE

- Interreg Europe
- Low carbon economy
- ERDF: 1.469.667 €
- Project duration : 4 year  
1.4.2016 – 31.3.2020

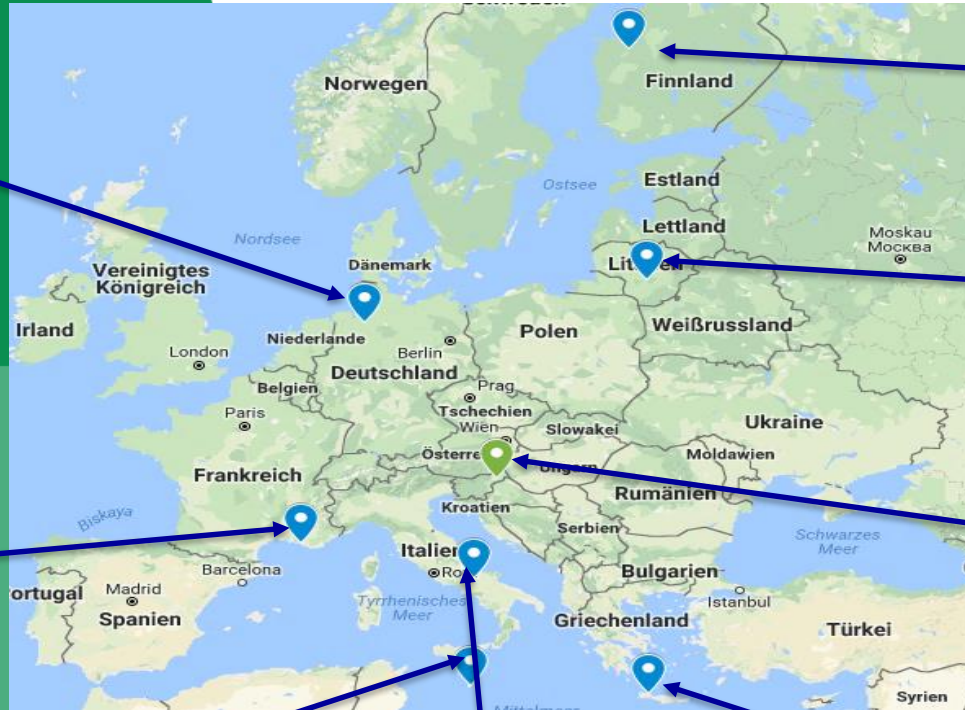




European Union  
European Regional  
Development Fund



# GEOGRAPHIC AREA OF THE PROJECT



Thermopolis

Kaunas District Municipality

Local energy Agency Spodnje Podravje

Mediterranean Agronomic Institute of Chania

Molise Region

University of Malta

European Institute for Innovation

Agency for Sustainable Mediterranean Cities and Territories



## **MAIN GOAL**

To represent and implement NEAR ZERO CO2 EMISSION BUILDINGS DUE TO ENERGY USE in policies addressed with regard to environmental sustainability and mitigation of climate change risk.

### **What is a ZEROCO2 building?**

It's a building with zero or near zero CO2 emissions due to energy use.

### **How to achieve that?**

With the combination of different renewable energy technologies to cover the energy demand of a building.

## OBJECTIVES:

- Define the idea of Zero CO2 emission building.
- Work on combination of different technologies and renewable resources.

## OUTPUTS:

7 policy instruments

7 action plans

+

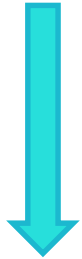
7 market need reports

+

Good practice guide

+

Case studies



**ZEROCO2 building = building with zero or near zero CO2 emissions due to energy use**

**Decrease emissions, save energy, save money, better environment for living, become self sufficient**





## What have we accomplished?

- We identified the current situation in the field of energy policies already promoting use of RES and EE
- We identified the strengths and weaknesses of these policies with suggestions for possible improvements
- We identified the current availability of regional RES
- We have brought together stakeholders
- We prepared 7 different studies: transformation of a building to a zero CO2 emission building due to energy use
- We identified several different good practice examples
- We prepared Action Plans and Market need report
- We started the implementation!





## Studies:

- Transformation study



	Building- current status	Building Variant 1	Building Variant 2
Energy need for heating kWh/m <sup>2</sup> a	21.578	21.798	21.997
Energy need for cooling kWh/ m <sup>2</sup> a	1.352	1.355	1.352
Use of electricity kWh/ m <sup>2</sup> a	8.945	8.945 (needed) 9.090 (produced)	17.436 (needed) 18.200 (produced)
CO2 emissions kg/ m <sup>2</sup> a	9.056	4.741 (before PV) 0 (after PV)	9.241 (before PV) 0 (after PV)
Operating costs per year (EUR/ m <sup>2</sup> a) (heating and electricity)	2.800	1.060	0
Investment €/ m <sup>2</sup>		30.025	46.000
Savings €/ m <sup>2</sup> a		1.740	2.800
Payback period a		17,3	10,7





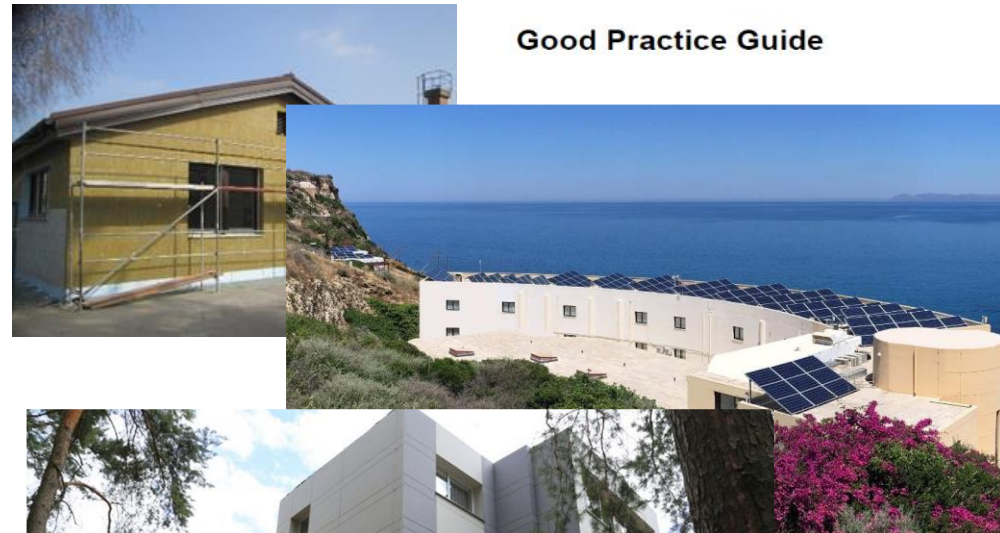
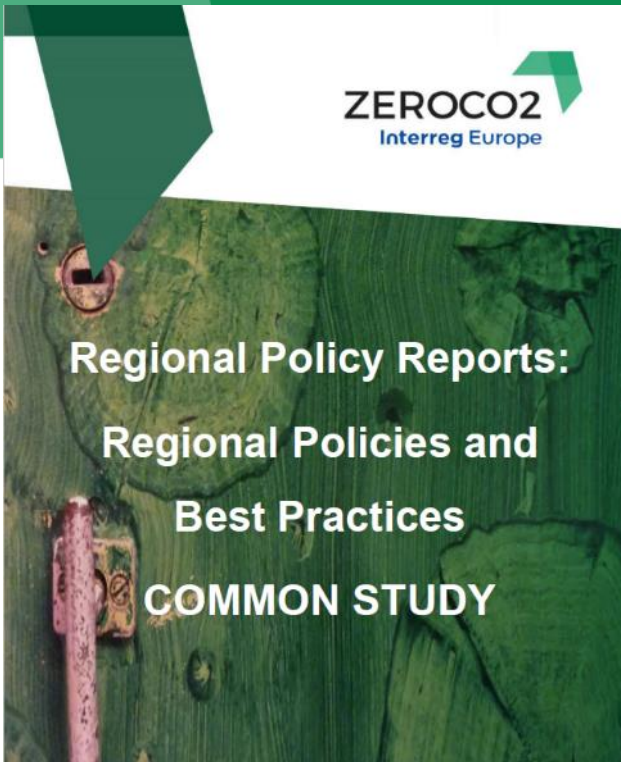
European Union  
European Regional  
Development Fund



- Regional policy report
- Good Practice Guide

Promotion of near zero  
CO2 emission buildings  
due to energy use

Good Practice Guide

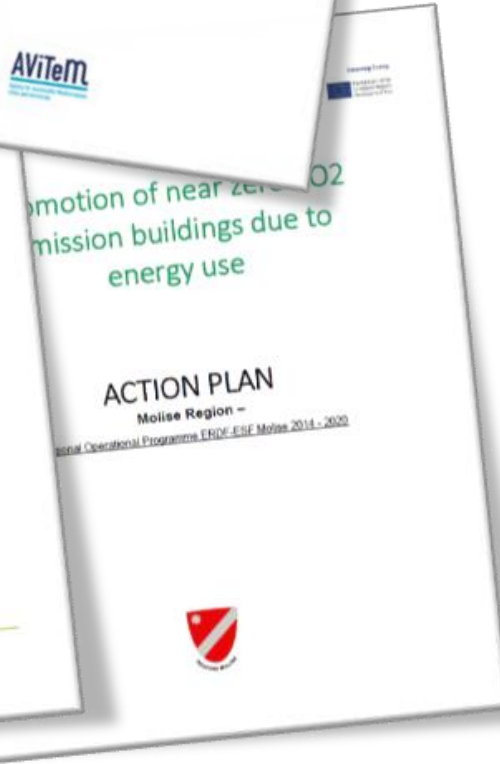
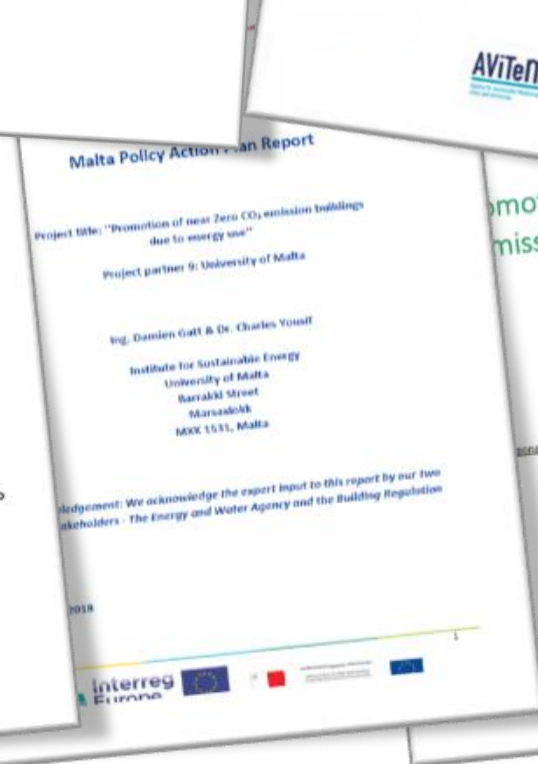
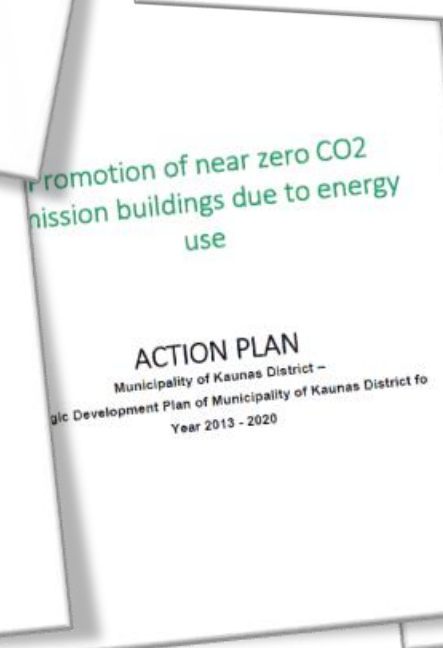
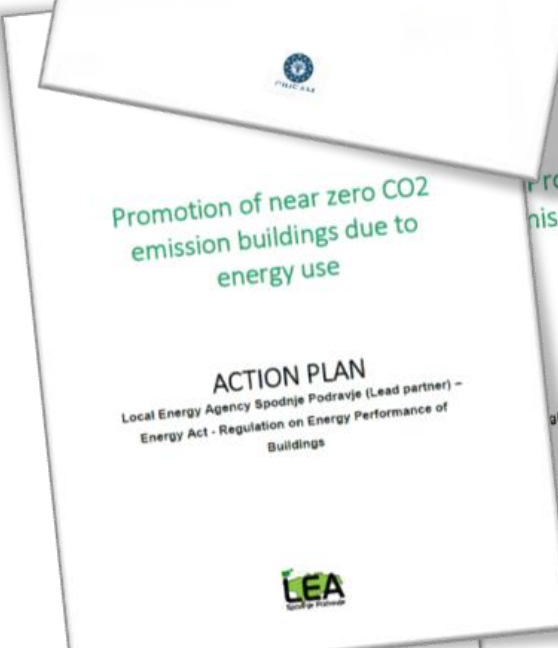
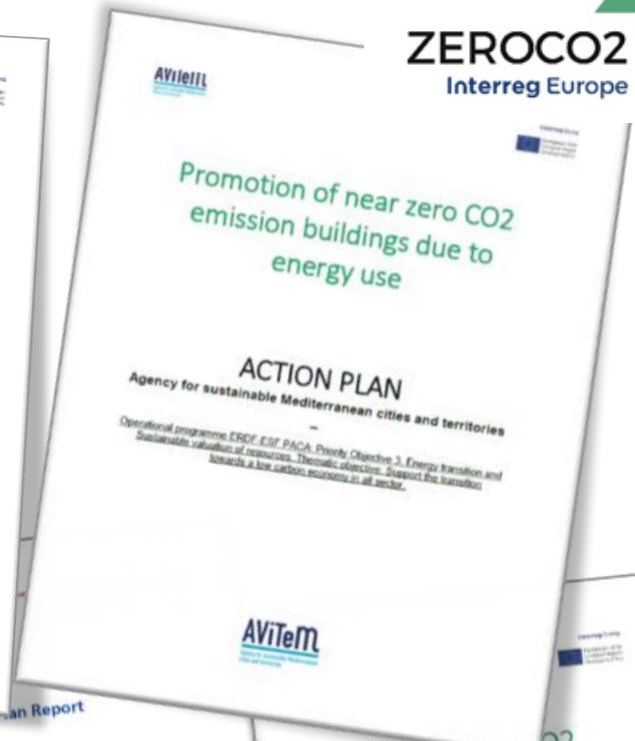
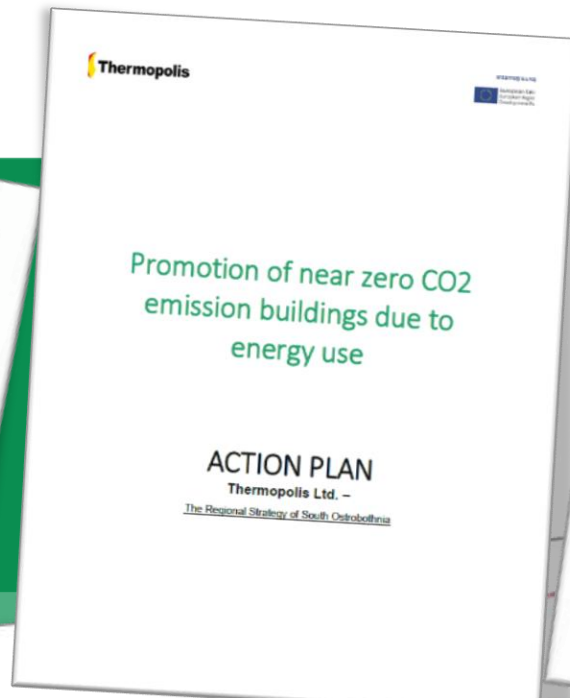
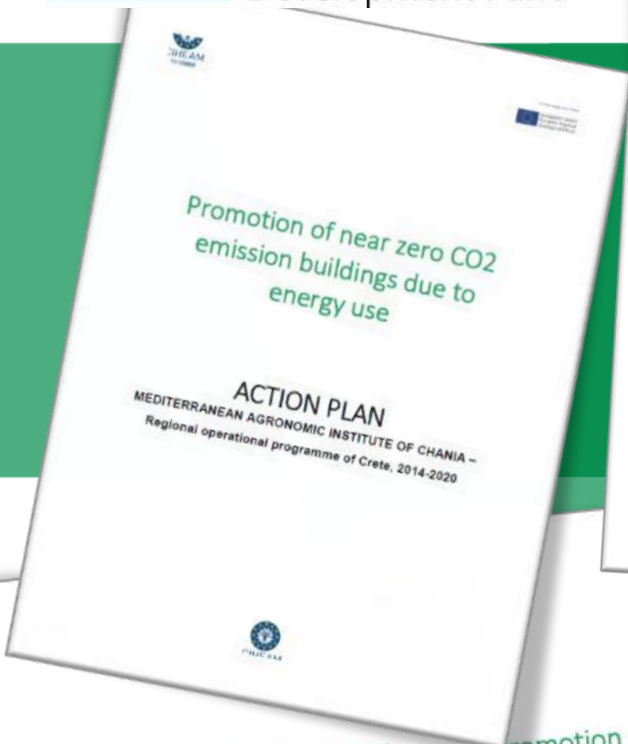






European Union  
European Regional  
Development Fund

**ZEROCO2**  
Interreg Europe





## RESULTS:

### Finland

- Thermopolis has successfully influenced the Regional Strategy of South Ostrobothnia. Thermopolis helped the regional authority choose relevant indicators to be included in the Regional Strategy update for 2018-2021.
- Thermopolis influenced the policy instrument in the drafting phase of the Implementation Plan of the Regional Strategy of South Ostrobothnia (including feedback, suggestions and recommendations).

### Lithuania

- Lithuania started the discussion about the renewal of the Strategic Development Plan of Municipality of Kaunas District. Discussion groups have been formed involving experts from the field of: Infrastructure, transport, environmental protection, economy, urbanistic departments, etc. As result of the discussions the Kaunas district municipality SWOT analysis was presented, which is the baseline for the renewal of the Strategic Plan.





## France

- Avitem supported and organised training activities dedicated to artisans and installers about the new products and technologies available on the market, so that they can more easily propose and apply them.
- Presented the E+C evaluation process.

## Italy

- Molise Region published on 13 May 2019 a call for proposal about the installation of renewable sources energy production systems for own use associated with interventions to improve energy efficiency by using of high-efficiency technologies.
- Molise Region published the call for tender "Incentives aimed at reducing energy consumption and gas emissions climate change of companies and production areas including the installation of production facilities for energy from renewable sources for self-consumption, giving priority to high efficiency" on 20/03/2018 on ROP ERDF 2014 -2020, Axis 4 "SUSTAINABLE ENERGY", Action 4.2.1.

## Slovenia

- Strengthen the cooperation with the Ministry of Infrastructure and agreed on regular meetings to discuss on Energy related matters. This is an important achievement that gives Local Energy Agencies the possibility to influence on national policies and improves the link between national and local energy "environment".
- LEA SP prepared numerous RES projects at the local level.





## Malta

- 1. Commitment of the Housing Authority and the Ministry for Education and Employment together with the Foundation for Tomorrow's Schools to collaborate with the University of Malta in the renovation of social housing and schools, respectively. In particular, the HA is seeking funds to renovate a 40-family apartment block next year. The estimated cost is 2-3 million Euro.
- 2. The first run of the professional training programme to design and construct near zero-energy buildings has been successfully implemented. Eleven professionals have taken and passed the specialized programme.
- The fiscal support scheme for solar water heaters have been upgraded and a new grant scheme for heat pump water heaters have been announced.
- 4. Schemes to encourage sports complexes to implement energy efficiency measures have been announced. The uptake was very good.
- 5. A new scheme to install solar photovoltaic systems on roofs owned by NGOs have just been announced. 1 million Euro has been allocated to this scheme.

## Crete

- Submitted 30 proposals for investment projects to reduce energy consumption fossil fuels and CO2 emissions in public buildings in Crete. 12 applications have been approved – total budget 12 mio. EUR
- Energy managers have been appointed in most public buildings
- Carried out Feasibility studies regarding the installation of solar-PVs in municipal buildings in Crete







European Union  
European Regional  
Development Fund







European Union  
European Regional  
Development Fund





European Union  
European Regional  
Development Fund







European Union  
European Regional  
Development Fund





European Union  
European Regional  
Development Fund



For more information: <https://www.interregeurope.eu/zeroco2/>

The screenshot shows the ZEROCO2 website interface. At the top, there is a navigation bar with the ZEROCO2 logo, the European Union flag, and links for 'My Interreg Europe', 'Register', 'Search', and 'Discover projects'. Below the navigation bar is a large banner image of a landscape with the text 'Promotion of near zero CO2 emission buildings due to energy use'. A green navigation menu contains links for 'NEWS', 'EVENTS', 'GOOD PRACTICES', 'CONTACTS', and 'LIBRARY', along with social media icons for Facebook, Twitter, and LinkedIn. The main content area features a 'Project summary' section with the heading 'What is ZEROCO2?'. Below this heading, there is a 'SHARE' button with social media icons and a 'Please Subscribe to the ZEROCO2 Newsletter' box with a 'Click This Link' button. The bottom of the page shows a partial view of a project description starting with 'ZEROCO2 will demonstrate Near Zero CO2 Emission Buildings due to energy use (NZCO2EB). The project'.



European Union  
European Regional  
Development Fund



**THANK YOU**