

ZEROCO2 Final newsletter for Malta

Project Overview

The Interreg-Europe ZEROCO2 project (Apr 2016 – Mar 2020), aimed to facilitate discussions, support exchange of experiences and best-practices and eventually propose specific policy action plans to accelerate the implementation of EU Directives with regards to building energy renovation in the public sector and social housing, with the aim of achieving near-zero carbon dioxide emissions, in eight regions in Europe.

One particularity of Malta in this project was that although Malta can participate in Interreg Europe projects as a region, it is actually a country. This means that energy policies are carried out at Ministerial rather than regional levels. Therefore, it is more challenging, and it would take a longer time to mobilise resources and stimulate change. Nevertheless, the outcome was very positive as detailed below.

As the Maltese partner in the ZEROCO2 project, the University of Malta has anticipated this challenge. In order to facilitate the implementation of the project during its lifetime in the best possible manner, a **Memorandum of Understanding (MoU)** was signed between the University and the main policy advisors and stakeholders, namely the Energy and Water Agency (ex- Sustainable Energy and Water Conservation Unit) and the Building Regulation Office. The former is responsible of

advising the concerned Ministry with regards to the EU Renewable Energy and the Energy Efficiency Directives, while the latter is concerned with the Energy Performance of Buildings Directive. The MoU was instrumental in ensuring the active participation of these primary stakeholders together with other secondary stakeholders during the many seminars, workshops and Technical Visits abroad, which were organised during the first two years of the project.

The project has achieved a very good level of implementation of policy action proposals, as shown in Table 1 (Excellent=2, Very good=5, Good=2, Fair=2, No material progress=5).

Reaching the Goal

Malta's policy action proposals were divided into eight soft measures and eight fiscal measures. These proposals were fruit of the many meetings, seminars and workshops that were organised among the key stakeholders and taking into consideration the results of technical studies that provided evidence-based outcomes to sustain the validity of the policy action plan proposals.

Table 1: The policy action plan proposals and their levels of implementation during the second phase monitoring period April 2018-March 2020.

Measures	2018/2019	2019/2020
Energy Performance Contracts		
One-stop shop		
Professional training		
Best-practice renovation guidance		
Awareness raising campaigns		
Statistical analysis of EPCs		
Improve public perception of EPCs		
Mandatory minimum share of RE in buildings		
Fiscal incentive to contractors		
Solar heating grant		
Bundled incentives		
Grants to hospitality sector, elderly and sports complexes		
Incentives for shading of commercial buildings		
Extend PV communal farms		
Renovate 5% of social housing sector		
Renovation of public authority buildings		

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Acknowledgements

We would like to thank all the public and private stakeholders, who have participated and supported the activities of the project ZEROCO2. Special thanks go to the Building Regulation Office and the Energy and Water Agency, as well as the Housing Authority and the Foundation for Tomorrow's Schools. Thanks to the project ZeroCO2, interest in public building energy renovation has been enhanced, especially for social housing and public schools, with the scope of achieving nearly-zero energy, zero carbon buildings.

Soft Action Three: Professional Training**Implementation Status: Excellent**

A dedicated short course has been devised and approved by the Academic Programmes Quality and Resources Unit (APQRU) to run at the University of Malta – “ISE2020: Net Zero Energy Building Strategies”. The study unit aims to fill a lacuna of specialised courses for practicing engineers, architects and project managers that are directly engaged in building and construction projects. It intends to equip the practicing professionals with all the necessary tools to construct near-zero energy buildings.

<https://www.um.edu.mt/courses/studyunit/ise2020>

Soft Action Eight: Mandatory Renewables in Buildings**Implementation Status: Very Good**

Following the publication of the cost optimal studies for new and renovated buildings, it is now clear that the introduction of a minimum level of renewable energy systems in new and renovated buildings will be introduced in the new Technical Document F: Minimum Energy Performance of Buildings. This is a step in the right direction, because the implementation of renewable energy systems would have the least cost if implemented at construction stage, rather than retrofitting them at a later stage in the building's lifetime.

<https://ec.europa.eu/energy/en/topics/energy-efficiency/energy-performance-of-buildings/energy-performance-buildings-directive/eu-countries-2018-cost-optimal-reports>

Fiscal Action Two: Solar heating Grant**Implementation Status: Excellent**

Following a steady drop in the popularity of solar water heating fiscal grants in Malta, the ZERO CO₂ project has consulted a study by the Institute for Sustainable Energy of the University of Malta and concluded that the existing maximum fiscal grant on capital cost of 400 Euro per solar heating system was not adequate. Based on that, the grant scheme was upgraded from 400 to 700 Euro, as of 2018. As a result, the uptake of solar heating systems has increased to 127 in 2018 and an additional 311 in 2019. Also, heat pump water heaters have increased from 0 in 2017 to 28 in 2018, and 46 more in 2019. Carbon dioxide savings when compared to the prevalent electric heating boilers are as follows: Solar water heaters - 101.6 tonnes of carbon dioxide in 2018 and 248.8 tonnes of carbon dioxide in 2019. Heat pump water heaters – 16.8 tonnes of carbon dioxide in 2018 and 27.6 tonnes of carbon dioxide in 2019.

Fiscal Action Four: Energy Grants to Sports Facilities**Implementation Status: Very Good**

In 2019, the Energy and Water Agency together with SportsMalta have launched a fiscal support scheme entitled: “Leading sport organisations to higher energy efficiency”. The grant offers 100% fiscal support up to € 20,000, and 90% support up to a maximum of €50,000 per organisation, which covers new energy saving appliances, intelligent lighting, and other actions that would result in at least 20% energy savings.

Fiscal Action Seven: Renovate 5% of Social Housing Sector**Implementation Status: Very Good**

This policy action proposal has found excellent response from the Housing Authority that is responsible for all social housing projects in Malta. A collaboration agreement has been signed between the University of Malta and the Housing Authority to provide all the necessary expertise and technical support to realise the first deep renovation housing project. The agreement is being managed by the Institute for Sustainable Energy. The scope is to carry out a detailed technical study of one earmarked project that houses 40 families. Following this study, financing will be sought to realise the project, which will act as a best-practice example that can be replicated in other blocks.



Figure 1: Study for deep renovation of the first social housing block.

Fiscal Action Eight: Renovation of Public Authority Buildings**Implementation Status: Very Good**

A similar agreement between the University of Malta, the Ministry for Education and the Foundation for Tomorrow's Schools (FTS) has been signed, to support the FTS and the Ministry in carrying out the necessary

technical studies for building nearly zero energy new schools and renovating existing schools. A new school is currently being planned, while four other schools are being renovated. Thanks to the project ZeroCO2 and the active participation of the stakeholders from the Ministry and FTS, this project will now become a reality.

Learning and Sharing Highlights

The Interreg-Europe project ZeroCO2 has provided the opportunity for all regions to learn from each other. It was quite inspiring to see how some regions were already well advanced in terms of applying energy efficiency measures in public housing and schools. This served as a best-practice guide for proposing similar policy actions that are adaptable to Malta.

Several regions have shown that biomass was the major renewable energy source and it was being extensively used, mainly for space heating and power generation. However, for Mediterranean regions such as Malta and Crete, it was more adaptable to use solar energy, as the primary source of renewable energy.

Many regions have energy efficient projects in schools. This was a step in the right direction, because schools involve the young generation of citizens and their families. This creates a ripple effect in terms of energy efficiency applications that students may adopt, either in their present or future homes.

From our side, we have shared our success approach that we adopted in the regional seminars, workshops and high-level meetings, whereby following every event a questionnaire was sent to the stakeholders, to collect their views and experiences on the topic of ZeroCO2. This was helpful because certain participants expressed their views better in writing rather than speaking.

Three best practice examples from Malta have been identified and published on the Interreg- Europe policy learning platform as follows:

1. **Heat pump water heaters grant:** This grant offers 40% subsidy up to a maximum of 700 Euro to households, who opt to shift to heat pump water heaters rather than electric boilers for domestic hot water. This grant served justice to households that had no access to roofs for solar water heating installations <https://www.interregeurope.eu/policylearning/good-practices/item/87/heat-pump-water-heaters-grant/>
2. **Solar photovoltaic communal farm scheme:** This government initiative empowered citizens, who had no access to roofs to invest in solar photovoltaic systems in a communal 1 MW system, thus contributing towards the renewable energy target for Malta and benefitting from a clean source of energy. <https://www.interregeurope.eu/policylearning/good-practices/item/86/solar-photovoltaic-communal-farm-scheme/>
3. **Positive-energy zero-carbon dioxide primary school:** This best-practice project demonstrated the feasibility of applying deep renovation to existing schools. Traditional and innovative energy efficiency measures were applied to the school and monitoring is still ongoing. <https://www.interregeurope.eu/policylearning/good-practices/item/236/positive-energy-zero-carbon-dioxide-primary-school/>



Figure 2: Good-practice example of solar photovoltaic communal farm in Malta.



Figure 3: A good practice example on deep renovation of existing schools.

Keys to Success

The Memorandum of Understanding between the University of Malta, the Energy and Water Agency and the Building Regulation Office, was one of the most important factors that guaranteed the full engagement of the main stakeholders throughout the lifetime of the project. Moreover, through them it was easier to reach out to other stakeholders both within and outside the policy making circles. This ensured wider discussions,

communication, dissemination among all target groups. Thanks to this approach, it was possible to continue the process of achieving near carbon dioxide emissions in renovated and new public buildings, thus achieving the primary aim of the project ZeroCO2.

Another important key to success was to listen carefully to the stakeholders and to translate their feedback into policy action proposals. Quite often, one may be tempted to propose measures even before hearing and deciphering the feedback of the stakeholder. In this case, all the 16 policy action proposals were the result of synthesis of a number of questionnaires that the stakeholders had responded to.

The Final Word

Our success in this project was primarily due to the support received from the policy advisors, authorities, public offices, target groups and all participants, despite their busy schedules. We are especially proud because through the project ZeroCO2, the number of zero energy public buildings should increase in the next two years, thanks to the great interest expressed by the Ministry for Social Accommodation and the Housing Authority, as

well as the Ministry for Education and Employment and the Foundation for Tomorrow's schools. Together, these entities will impact two of the most important public building sectors, namely schools and social housing.



Figure 4: The final regional conference for the Malta ZeroCO2 Policy Action Proposals was presided by the then Hon. Dr. Aaron Farrugia (Centre), Parliamentary Secretary for EU Funds and Social Dialogue, who is currently the Minister for the Environment, Climate Change and Planning. First left is Prof. Luciano Mule' Stagno, Director, Institute for Sustainable Energy. First right is Ing. Damien Gatt, the ZeroCO2 project officer and near him Dr. Ing. Charles Yousif, the partner coordinator of the project ZeroCO2 at the University of Malta.

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