

SEADRION



**FOSTERING DIFFUSION OF
HEATING & COOLING
TECHNOLOGIES USING THE
SEAWATER PUMP IN THE
ADRIATIC-IONIAN REGION**

NEWSLETTER n.2

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About SEADRION project

The main objective of the SEADRION is to identify the benefits and barriers associated with the use of seawater heat pumps. Seawater heat pumps are considered as an ideal approach to heat and cool buildings in coastal areas due to its attractive advantages of high efficiency, low carbon emission and use of renewable energy sources. The project aims to continue the activities already carried out and supported by the MED Programme with the Enercoast project. The exploitation of the seawater as an alternative energy source represents a strategic potential for all Adriatic countries regardless of political boundaries in becoming more independent in terms of energy supply.

Project deliverables – implemented and ongoing activities



Albanian 2nd Seadrion national workshop

The 2nd Seadrion national workshop intitled „Using seawater to water heat pumps as heating and cooling systems“ was organised on 14th of February 2019 in Gjirokastra, Albania.

Twenty-three participants from local energy agencies, professional associations (engineers, architects), local administrators from municipalities, energy consultants joined the workshop. The purpose of the event was to present the SEADRION project to stakeholders, the project results and expected goals, examples of good practices and to identify the possibilities of cooperation. At the conclusion of the meeting, a discussion was opened regarding different types of technologies and the possibilities of their introduction.

[More info](#)



Third project partner meeting

The municipality of Izola organised the 3rd project meeting in Manzioli palace, Slovenia on 16th and 17th of April 2019. Partners discussed about the implementation of progress of all work packages, while each work package leader provided updates and clarifications regarding implemented and expected actions. On this occasion also the first Slovenian stakeholder meeting was organised. After the introduction and presentation of the SEADRION project, project partners with pilot plants presented the pilots that will be realised through the project. Afterwards, three participating stakeholders (Menerga d.o.o., Resalta d.o.o. and PHM Invest d.o.o) presented their activities and future implementation plans. A discussion about barriers and readiness for the implementation of seawater heat pumps followed.

[More info](#)



First SEADRION pilot plant successfully installed

First pilot plant installed in the scope of SEADRION project started its operation in July 2019. The pilot plant is used for heating and cooling of the Rectors Palace, Cinema and the Municipality building of the City of Dubrovnik. The pilot plant consists of 6 seawater heat pumps with altogether heating capacity of 430 kW and cooling capacity of 210 kW. To mark the start of the operation, DURA organized their first stakeholder meeting on 22nd of July 2019 in the boiler room of the Rectors Palace. There, the representatives of Dura, the City of Dubrovnik and the stakeholders took a tour of the pilot plant where they were introduced to its operational principles.

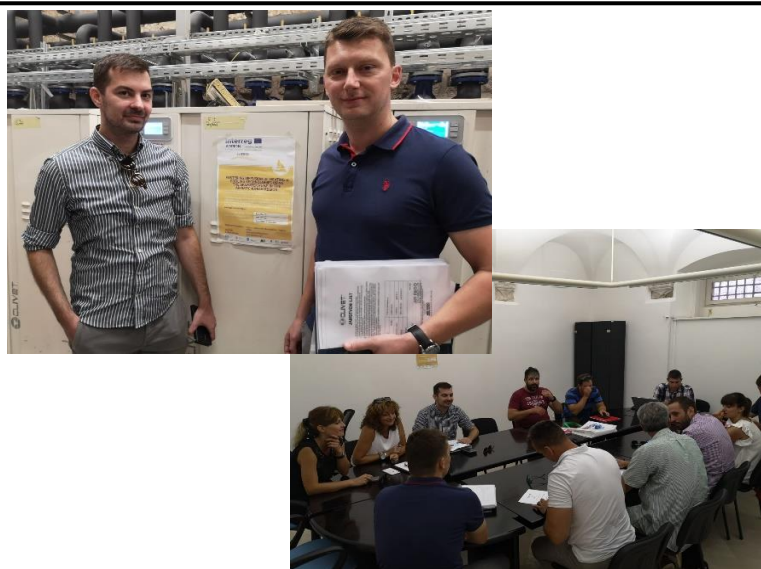
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Round table with Slovenian stakeholders

The event “En. Municipality & En. Management 019” was organised by the Montel Energetika.NET in Ljubljana, Slovenia on 14th of June 2019. A part of event was dedicated also to the 2nd Seadrion meeting (round table) with Slovenian stakeholders that was intitled “Sea water heat pumps – obstacles and opportunities“. The aim of the round table (which was organised in cooperation with GOLEA) was to involve different stakeholders at national level into a discussion and to exchange information and opinion on heat pumps, obstacles and opportunities offered by this type of technology, thereby contributing to easier integration into the Slovenian territory and its higher visibility at the national level with the goal of reducing dependence on fossil fuels. To this end different stakeholders were invited to take participation - Peter Blažek (Nom biro d.o.o.), Vlado Malačič (Nacionalni inštitut za biologijo), Bogdan Kronovšek (Kronoterm d.o.o.).

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Stakeholder meeting in Croatia

DURA organized the stakeholder meeting on 22nd of July 2019 in the boiler room of the Rectors Palace where the new pilot plant in scope of the SEADRION project was installed. The pilot plant consists of 6 seawater heat pumps. Representatives of DURA, City of Dubrovnik and the stakeholders toured the facility and were introduced to heat pumps operation principles and possibilities. The aim of the stakeholder meeting was to familiarize participants with the potential of using renewable energy sources, and to make an investment example of good practice to show that there is an existing technology that doesn't obstruct the view of the building. The project itself is an example of the use of modern technology in the restoration of the monumental heritage.

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Regional open day in Slovenia

On Friday, September 20th 2019, the first Regional Open Day was organized in Izola, Slovenia. The event was part of the Mediterranean Coast and Macro-Regional Strategies Week – “SEA4FUTURE”. Boris Ćosić (Croatia) and Chrysovalantis Ketikidis (Greece) presented their pilots, Špela Guštin and Tomaž Lozej (Slovenia) presented the feasibility study for Izola. With open days we wish to communicate the project's progress and results and also to raise awareness regarding seawater heat pumps.

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Participation at workshops and conferences



From 20th till 23rd of March 2019 the **6th International Congress Mechanical Engineers Days** was held in Vodice, Croatia. The theme of the Congress was **“Mechanical Technologies – Future Imperative”**.

At the Congress a paper entitled “Analysis of different seawater intake methods for seawater to water heat pumps: SEADRION project” was presented. Within the presentation, project objectives, done studies and planned future work were presented. In the paper, the advantages and disadvantages of the seawater heat pump have been elaborated in detail, as well as the seawater intake methods and the necessary permits for seawater exploitation. Furthermore, the existing state, planned seawater intake methods and targeted energy and greenhouse gas saving of the tree pilot plants, whose design was planned within the project, were discussed.

[More info](#)



The **2nd ADRION Annual Event** (organised under the headline of Building Bridges of Cooperation in the Adriatic and Ionian Region) took place on 6th May 2019 at Hotel Splendid in Budva, Montenegro.

More than 200 people gathered at the event, organised back-to-back with the 4th EUSAIR Annual Forum under the auspices of the Programme’s Montenegrin Presidency, focused on one of the main objectives of ADRION, such as fostering integration between the EU and non-EU Members States of the Programme.

As a general statement, all the event’s speakers stressed the importance of bringing together IPA and ERDF stakeholders for the implementation of projects with the ultimate goal of increasing the exchange of best practices, cooperation and integration in important sectors across the region. SEADRION project participated with partners CERTH, DURA and the Municipality of Izola.

[More info](#)



On 13th of May 2019, Mrs. Iva Bertović from the Faculty of Mechanical Engineering and Naval Architecture of University of Zagreb presented the project SEADRION and seawater heat pumps on the **Zagreb Energy Week 2019**, Croatia. “The potential of seawater exploitation in heat pump systems (project SEADRION)” was intitled her presentation.

[More info](#)



On 18th of June 2019 Mrs. Tena Maruševac from Faculty of Mechanical Engineering and Naval Architecture of University of Zagreb presented the project SEADRION on the **4th International Conference on Smart and Sustainable Technologies** at Bol and Split, Croatia. The presentation was intitled „Using high-temperature seawater heat pump for pool heating and domestic hot water preparation in a special hospital”. The presented study was made for one of the pilot locations in Croatia, Thalassotherapia Crikvenica.

[More info](#)

Establishment of Croatian Heat Pump Association



On 21th of March 2019 **Croatian Heat Pump Association** was established on the Faculty of Mechanical Engineering and Naval Architecture Zagreb. The goals of the Association are:

- promoting the use of heat pumps in heating and cooling systems in all areas, locally, regionally and globally,
- expert support for institutionalizing the area of heat pumps and creating regulation in the area (where there are multiple open issues),
- actively participate in the identification of legal, professional, economic and social barriers to the wider application of heat pumps and to prepare proposals for their removal,
- connecting SME's, research and higher education institutions, local communities, state administration bodies, chambers of commerce and other entities on projects of application of heat pumps.

Vladimir Soldo was elected President of the Association.



Next workshops/conferences/meetings



Seadrion regional open day in Izola

Within the 2nd day of Workshop intitled "How to progress from TSG 3 priorities towards EUSAIR macro-regional projects" that will be organised by TSG 3 a Seadrion Regional open day will be implemented. The event will take place on 20/09/2019 at Manzioli Palace, Izola, Slovenia. The speakers at the event are Seadrion project partners which will present the following topics:

- Boris ČOSIĆ (UNIZAG-FSB) Presentation of pilot projects SEA PUMP in Croatia
- Chrysovalantis KETIKIDIS (CERTH/CPERI) Presentation of pilot projects SEA PUMP in Greece,
- Tomaž LOZEJ, GOLEA and Špela GUŠTIN, Municipality of Izola Presentation of feasibility study of Izola

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14th Conference on Sustainable Development of Energy, Water and Environment Systems (SDEWES) will take place from 1st of October to 06th of October 2019.

One of the main issues of the coming decades is to improve efficiencies by integrating various life-supporting systems, using excess from one, as resource in another in the correct moment. Integrating electricity, heating, cooling, transport, water, buildings, waste, wastewater, industry, forestry and agriculture systems will be pivotal towards sustainable development.

SDEWES Conference has become a significant venue for researchers in those areas to meet, and originate, discuss, share, and disseminate new ideas. Several topics will be dedicated also to use of heat pumps for cooling and heating.

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3rd International Conference on the Sustainable Energy and Environmental Development (SEED2019 Conference) will take place in Krakow (Poland) between 16th and 18th of October 2019.

The scope of the conference covers the area of sustainable energy and environmental development.

[More info](#)



Next project meeting is scheduled in Greece - Thessaloniki (in November 2019) where partners will discuss about activities that were accomplished, future activities, activities related to installation of pilot plants, on-line stakeholder platform, pre-feasibility studies, Policy Roadmap for the enhancement of H&C technologies, Blue Growth Strategy for Ionian Adriatic Region and dissemination of project results as well.

Follow the project development on:

<https://seadrion.adrioninterreg.eu>

Next workshops/conferences/meetings



European Heat Pump Summit will take place at Exhibition Centre Nuremberg on 22nd and 23rd of October 2019. The European Heat Pump Summit creates a bridge from the present to the future of the heat pump with the themes:

- Market Developments
- Research and Development
- Development on Components and Products
- Application of Heat Pumps

The Summit is a well-organized meeting place for specialists to exchange expertise. Component manufactures will get in close contact with their users. The focus is to foster professional dialogue and exchange of expertise on current developments, research results and possibilities for energy reduction with renewable resources and application challenges.

[More info](#)



The Renewable Energy, Biofuels and Green Technologies Congress (REBFGT2019) will take place in Rome (Italy) on 23rd and 24th of October 2019. The event theme: A Fuel for the Sustainable Future.

This conference aims to find innovative synergies of knowledge in the field of Renewable Energy, Bio-Fuels and Green Technologies by utilizing the valuable experience of professors, experts, academics, entrepreneurs, policy makers, association directors, managers, CEOs and scientific institutions of the world in order to provide an ideal opportunity for information exchange. Since the theme is "A Fuel for the Sustainable Future" a sensitive one at a global scale, much can be achieved via this event in terms of concrete action plans and strategies.

[More info](#)



Euro Renewable Energy 2019 conference is a global platform to discuss and learn about aims to provide a Renewable energy researchers, scientists, industrialists, policy makers, energy economists and academicians to exchange and share their experiences and research results about all aspects of Renewable Energy and Resources. The event "New Frontiers in Renewable Energy and Resources" with the theme "Renewable Energy for a Better Future", will take place in Rome on 18th and 19th of November 2019.

[More info](#)

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