



New generation of intelligent efficient District Cooling systems

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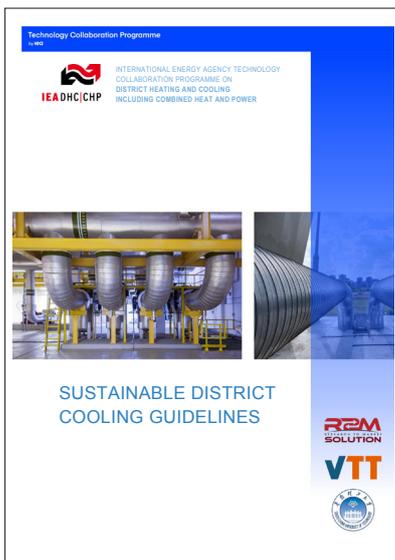
Goodbye

This is our last newsletter, since INDIGO has just finished its run. We are proud of the results achieved, and in this issue you will find an overview of the replication plan of the project, as well as an interview with Veolia, partner in charge of the pilot sites and who will be the main exploiter of INDIGO's results.

On other news, we are excited to announce that all the Key Exploitable Results developed in INDIGO have been included in the [Innovation Radar](#). The Innovation Radar is a European Commission initiative to identify high potential innovations and innovators in EU-funded research and innovation framework programmes. The goal of this initiative is to allow every citizen, public official, professional and business person to discover the outputs of EU innovation funding and give them a chance to seek out innovators. This is a confirmation that the work the Consortium has been developing is innovative and has a great potential for having an impact in society.

We want to draw your attention to the latest publications of the project:

- [Sustainable District Cooling Guidelines](#): A report commissioned by the International Energy Agency (IEA DHC), created among R2M Solution, VTT and SCUT thanks to INDIGO project.
- Zabala, Laura; Febres, Jesús; Sterling, Raymond; López, Susana; Keane, Marcus: "[Virtual testbed for model predictive control development in district cooling systems](#)", Renewable and Sustainable Energy Reviews, 129 (2020).



Sustainable District Cooling Guidelines

Project facts

Project Type: Research and Innovation Action

Start Date: March 2016

Call: H2020-EE-2015-2-RIA

Budget: €2.229.321,25

Duration: 55 months

Replication plan of INDIGO's results

Veolia is one of the largest ESCOs in the world. Giroa-Veolia, one of the partners of INDIGO based in the Basque country, is specialized in the management of thermal facilities in different sectors (public, industrial, residential).

Given the social context and the commitments made by the European Union to progressively reduce the emission of greenhouse gases, the Basque Country has published Law 04/2019 on Energy Sustainability, which establishes the following objectives:

- Coverage with renewable energies (32% in 2030)
- Reduction of consumption in buildings (35% in 2030 - 60% in 2050)
- Improved energy certification rating to minimum level B in 40% of buildings by 2030

The publication of Law 04/2019 is an impulse and an opportunity to integrate the solutions developed in the different innovation projects in which Giroa-Veolia participates.



Basurto Hospital

INDIGO was deployed in Basurto Hospital, a benchmark hospital whose energy management is recognized at the state level, with a real District Heating and Cooling (DHC) installation that verifies the benefits of INDIGO developments, and is used as an exploitation demonstrator of the project's new generation of District Cooling Systems.

There are facilities under Veolia's management where it is possible to make a direct implementation of the INDIGO's District Cooling System Management Strategy implemented in Basurto, and it is foreseen that this model can be replicated in other facilities in different areas and even exported to global facilities of Veolia's group:



H. GALDAKAO
(Basque country)



H. SAN ELOY
(Basque country)



H. ZUMARRAGA
(Basque country)



H. VIGO
(Galicia)



H. REINA SOFIA
(Andalucia)

Other results of the project, namely the Distribution Pumps Optimizer and the Predictive Controller for Generation Systems, are also of the interest of Veolia to implement in other industrial and residential facilities:



Urberoa (San Sebastián):
residential district



Tekniker (Eibar):
research institution



Utedeza (Zaragoza):
wastewater treatment plant

Interview with Giroa-Veolia

Giroa is the brand of the Veolia group located in the north of Spain. Our activity is focused in three big areas:

- Waste
- Water
- Energy

To all our clients we offer full services in these three areas, including design, execution, management, maintenance, energy saving services, and financial services to update their facilities.

We have different types of clients, such as hospitals, residential buildings, industrial facilities, wastewater treatment plant, etc.

www.veolia.com



Gorka Naveran

R&D department manager
WP6 leader in INDIGO

Role in the Project:

Veolia is the manager of the two demos sites of the project: Basurto and La marina, being responsible for the deployment of INDIGO's developments in these sites.

Why is DC interesting for Veolia?

As manager of the District Cooling systems in Basurto and La Marina, all the results of INDIGO can be tested directly, producing direct energy savings in operation and maintenance of the facilities, therefore resulting in better OPEX for the sites.

In addition, market studies made by Veolia demonstrate that district cooling systems are more effective and with lower OPEX than the individual production systems, and our strategic plan is to increase the number of district cooling and heating deployments with new users connected.

Expectations from INDIGO:

Veolia expects to acquire new procedures for operation, resulting in strategies that give us a competitive advantage. Veolia is studying how to make a deployment and the procedure to change from a corrective controller policy to predictive systems such as model predictive controllers, and the INDIGO project results will enable us to make the necessary changes to improve our business results.



Roof top cooling tower
and chiller



Pumping system of the
cooling production
plant



Project Coordinator
Tekniker (Spain)



VTT Technical
Research Centre
of Finland Ltd
(Finland)



NUI Galway
(Ireland)



R2M Solution Srl
(Italy)



Giroa-Veolia
(Spain)



CSEM, Centre Suisse
d'Electronique et
de Microtechnique
(Switzerland)



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www.indigo-project.eu



Contact us: