



# Public Communication Materials

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## Table of content

1. Introduction .....	3
2. Project Messages.....	4
3. Communication Materials .....	6
3.1 Presentation.....	6
3.2 Brochure .....	7
3.3 Poster .....	8
3.4 Newsletter.....	9
4. Web Communication Channels .....	10
4.1 Website.....	10
4.2 Social Media .....	10
5. Future actions .....	10
6. Conclusions.....	11

## Nomenclature

DHC	District Heating and Cooling System
DC	District Cooling
WP	Work Package
D	Deliverable
EU	European Union

## 1. Introduction

This report provides a basic understanding of key focal development principles considered during the implementation of INDIGO's public communication materials. A description of the materials created until this date, and the planned materials for the future, is presented.

The communication materials represent the visual identity of the project, being an invaluable tool to help disseminate INDIGO across the interested stakeholders but also within academia and the general public. The initial materials are oriented to the general public, because as of now our main objective is to introduce the project to as many people as possible. But these materials can be used to reach specific stakeholders in industries and academia, because they contain technical specifications, graphic reproductions, and future development strategies of the project. Through INDIGO's lifecycle will be possible to create more and detailed communication materials targeted to different specific stakeholders.

This report contains:

- The messages to disseminate INDIGO
- The current public communication materials
- Web communication channels
- Future actions

R2M Solution, as WP7 leader, will maintain the data necessary to create and enrich the communication materials, and specifically it will develop the materials aimed at the general public. VEOLIA will develop the materials aimed at the industry and NUIG the ones aimed at academia. All the partners will help in the communication and dissemination activities.

## 2. Project Messages

As established in D7.2 “Communication Strategy”, the project messages are composed by paragraphs, sentences and key messages that serve to have a unified language in the consortium when spreading the word about INDIGO, being in public communication materials, in dissemination activities or even in networking talks.

The **project summary paragraphs** are appropriate for any instance where one needs to briefly describe what INDIGO is so that consistent language and a consistent message are provided. The **project summary sentence** is appropriate when one sentence is required. **Project key messages** instead (Table 2.1) are essentially “slogans” that can be used to express the main ideas of the project. The messages approved by the consortium are the following ones:

### INDIGO Project Summary Paragraphs

#### ***New generation of Intelligent Efficient District Cooling Systems***

INDIGO is a Horizon 2020 EU-funded project carried out by six partners from across Europe and one from the United Arab Emirates that aims to develop a more efficient, intelligent and economical generation of District Cooling (DC) systems by improving the existing system planning, control and management tools. This will be achieved through two specific objectives. The first one is to widen the use of DC systems and motivate the competitiveness of European DC market by the development of two open-source tools: a planning tool for DC systems with the aim of supporting their optimal design; and a modelling library with thermo-fluid dynamic models of DC System components which will provide the designers detailed information about their physical behaviour. The second objective is to reduce primary energy consumption. This will be addressed by a ground breaking DC system management strategy focused mainly on energy efficiency maximization and on energy cost minimization.

The main characteristic of this strategy is a predictive management capability. However, it will also address other challenges, such as the integration of different types of Energy Sources (including Renewables) and suitable coupling between generation, storage and demand. Intelligent and innovative component controllers (Predictive Controllers) will also be developed at all DC system levels. Some of them include embedded self-learning algorithms, allowing components to respond properly to the established set-points. In addition, open source tools and guidelines will be developed within the project in order to provide more confidence and, consequently, more openness when developing and using DC systems. INDIGO developments will be validated in a real District Heating and Cooling installation with appropriate conditions for testing the new functionalities. The project, coordinated by the Spanish institution VEOLIA, started in March 2016 and will last three and a half years.

**INDIGO Project Summary Sentence**

***New generation of Intelligent Efficient District Cooling Systems***

INDIGO is a 42 months Horizon 2020 project which main objective is the development of a more efficient, intelligent, and cheaper generation of District Cooling (DC) systems by improving the existing system planning, control and management tools, taking into account all components and levels of a DC system.

INDIGO involves the development of an innovative and optimized DC system Management Strategy and the integration of predictive controllers at component level, some of them including self-learning algorithms for accuracy improvement.

**Table 2.1. INDIGO Project Key Messages**

Key Message	Embedded Concept
More efficient, intelligent and cheaper District Cooling systems with INDIGO	The objective of the project is the development of a more efficient, intelligent and cheaper DC system than what is already available.
INDIGO: Adaptive controls, efficient planning and renewable energy integration with new District Cooling systems	The same as the previous one, the main objective of the project.
Smart District Cooling system for sustainable living	INDIGO will help reduce primary energy consumption.
INDIGO leads the way towards efficient and comfortable District Cooling systems	Message for end users.
INDIGO will deliver affordable planning, monitoring and control of district cooling systems	Points of interests for engineering companies as stakeholders.
New technologies and tools opening new career paths in the energy efficiency sector thanks to INDIGO applied research to district cooling systems	Message for students.
INDIGO will demonstrate modelling and simulation supported energy efficient district cooling system, planning, monitoring and control	Message for researchers.

### 3. Communication Materials

These materials are relevant to introduce INDIGO to the widest audience possible. They are the visual identity of the project and, besides being displayed in our website, are printed, being a tool to present the project to everyone who may be interested.

We have created our first Brochure, INDIGO's Poster, a general Presentation, and the template for the Newsletter.

#### 3.1 Presentation

A general overview of the project was created in month 3 as a useful tool in presenting INDIGO to interested stakeholders.



Figure 3.1 Front page – INDIGO presentation

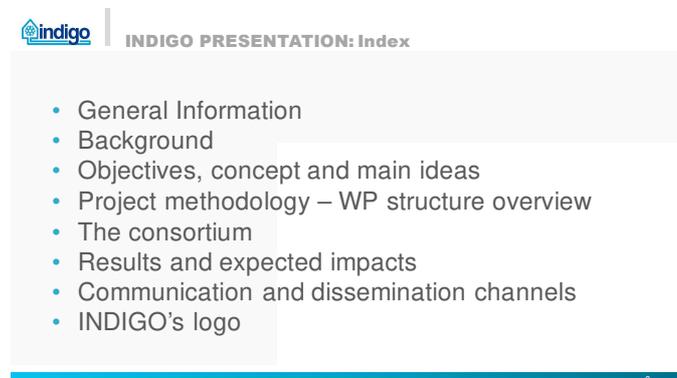


Figure 3.2 Index – INDIGO presentation

### 3.2 Brochure

INDIGO’s brochure was created in June 2016. It was first introduced in the conference “Sustainable Places 2016” held in Anglet, France between June 29 and July 1<sup>st</sup> 2016.

1000 copies were printed in size A4, and it is also available in [www.indigo-project.eu](http://www.indigo-project.eu). It’s a resource that all the partners can use to disseminate the project.



Figure 3.3. Front page – INDIGO Brochure

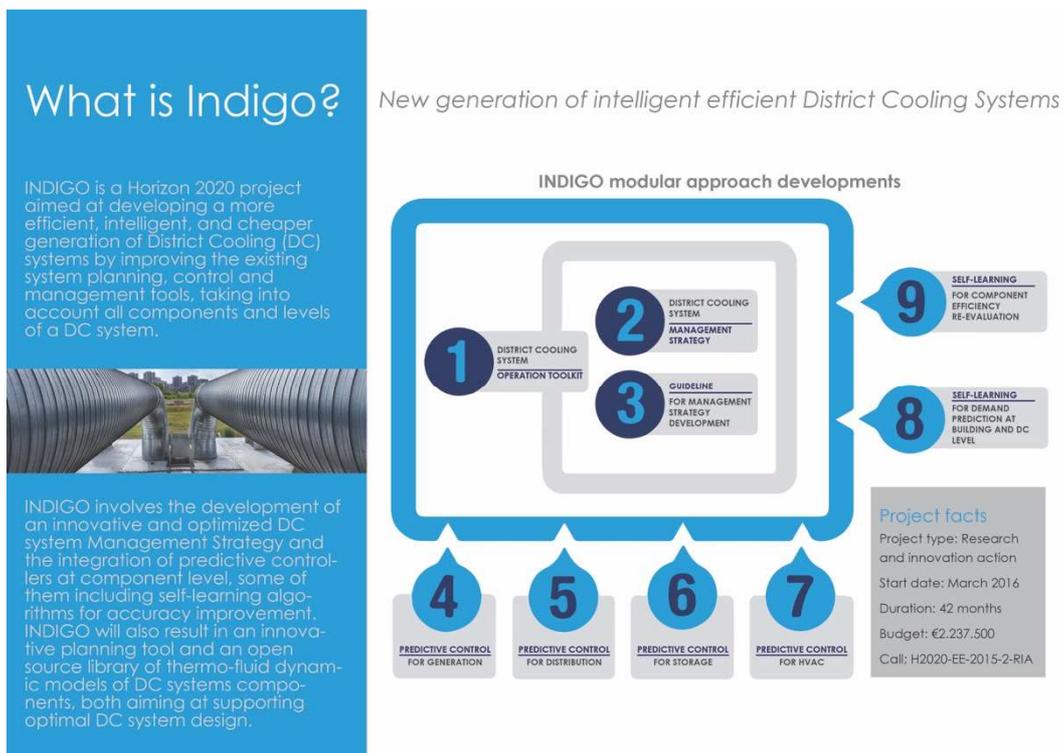


Figure 3.4. Back page – INDIGO Brochure

### 3.3 Poster

INDIGO's poster was created in August 2016. Its size is A0. It will be displayed in all the headquarters of the consortium and in some public events. It will also be available in [www.indigo-project.eu](http://www.indigo-project.eu).



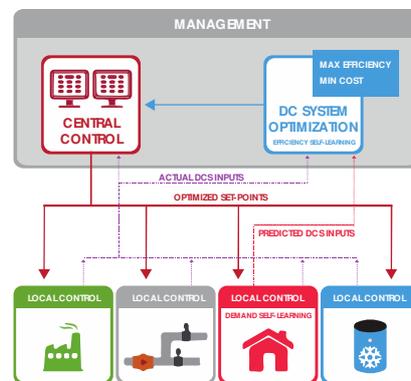
#### What is it?

INDIGO is a Horizon 2020 project aimed at developing a more efficient, intelligent, and cheaper generation of District Cooling (DC) systems by improving the existing system planning, control and management tools, taking into account all components and levels of a DC system.

#### Why INDIGO?

In Europe, different prognosis show an increase in cooling demand of almost 60% in 2030 with respect to nowadays. DC can play a part in satisfying this demand in a sustainable way (since it can offer 5 to 10 times higher efficiency solutions than on-site stand-alone distributed systems). Even if DC captures only minor portion of the prospective market, this will translate into a dramatic increase in the size of the global DC sector. INDIGO's objective is to position itself as a spearhead project in innovative DC systems.

#### How does it work?



### Towards more efficient, intelligent and cheaper DC systems

#### Project Facts

Project Type: Research and Innovation Action

Start Date: March 2016

Call: H2020-EE-2015-2-RIA

Budget: €2.237.500

Duration: 42 months

#### Pilot 1: Basurto Hospital (Bilbao, Spain)

Basurto was erected in the first decade of the 20th century and currently comprises more than 15 buildings, most of them maintaining their original architectural special features. Heating and cooling demands are satisfied thanks to a DHC installation connected to a trigeneration plant (electricity, heat and cold). The DHC system was erected inside the hospital area in 2003 by GIROA, and extended in 2011. This company currently owns and operates the system and also the HVAC in the buildings.



#### Pilot 2: Zona Franca-La Marina-L'Hospitalet area (Barcelona, Spain)

The District Heating and Cooling (DHC) installation is a big city project, with the aim of supplying heat and cold to a 15.000.000 m<sup>2</sup> area in the Barcelona Harbour surroundings. The construction and exploitation of the district belongs to Ecoenergias Barcelona. Currently two generation plants (heat and cold) are constructed and first consumers are connected to a grid of 5 km total length.



Figure 3.5. INDIGO Poster

### 3.4 Newsletter

The first issue of INDIGO’s newsletter will be released in December 2016 and it will have a frequency of 10 months. There will be four issues in total. The size will be A3, folded in two to create 4 pages.

Is going to be displayed in the website, and distributed to the subscribers and to the organizations that support INDIGO.

In it, the project will be introduced, as well as the partners and the main activities and developments of each period.



*New generation of intelligent efficient District Cooling systems*

#### Inside

- General Info ②
- Kick-off meeting ③
- Activities ③
- Interview ④

#### What is it?

INDIGO aims to develop a more efficient, intelligent and cheaper generation of District Cooling (DC) systems by improving system planning, control and management. This target will be achieved through the following specific objectives:

- Contribute to the wider use of DC systems and motivate the competitiveness of European DC market by the development of two open-source tools:
  - A planning tool for DC systems with the aim of supporting their optimal design;
  - A library with thermo-fluid dynamic models of DC System components which will provide the designers detailed information about their physical behaviour.
- Primary energy reduction over 45% addressed by a ground breaking DC system management strategy focused mainly on energy efficiency maximization but also on energy cost minimization. Its main characteristics is the predictive management but it also will address other challenges such as:
  - Integration of Renewable Energy Sources;
  - Dealing with different types of cooling sources;
  - Suitable coupling between generation, storage and demand.

All this, with the help of intelligent and innovative component controllers (Predictive Controllers) to be developed at all DC system levels. Some of them include embedded self-learning algorithms, allowing components to respond appropriately to the set-points established.

#### Project facts

Project Type: Research and Innovation Action	Start Date: March 2016
Call: H2020-EE-2015-2-RIA    Budget: €2.237.500	Duration: 42 months

## 4. Web Communication Channels

### 4.1 Website

The website [www.indigo-project.eu](http://www.indigo-project.eu) was D7.1, created in month 1 of the project by R2M Solution. In it is contained all the information about the project, partners, activities and developments of INDIGO. It is also a platform to release all the public communication and dissemination materials.

The website is the face of the project and is constantly updated.

### 4.2 Social Media

In the next couple of months these social medias will be used by INDIGO:

- LinkedIn: It will be created a profile for INDIGO in LinkedIn, in order to further disseminate the project among professionals related to DHC and to create debates and share useful information.
- Twitter: An account in this social media will be useful to spread the project to a wider audience, as well as sharing the developments and resources of INDIGO along the course of the project's life.

Links to these profiles will be displayed in the website.

## 5. Future actions

More public communication materials will be created further on, directed towards specific stakeholders, and including the developments of the project.

It is planned to create a video in order to help disseminate INDIGO in an interactive way.

We are looking for opportunities to have a press and/or radio release.

INDIGO will also have a presence in conferences, workshops and papers, as part of the scientific dissemination.

## 6. Conclusions

The public communication materials are an integral element of INDIGO's dissemination strategy and will simultaneously ensure project visibility and facilitate the diffusion of exploitable results. These materials provide a basic set of information about the project and will be regularly updated with scientific results, findings and achievements.