

Project Website

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Authors

Responsible Authors and Entities	
Author	Institution
Tatiana Loureiro	R2M Solution

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Nomenclature

CMS Content Management System

EU European Union

KPI Key Performance Indicator

RSS Really Simple Syndication

SN Social Network

URL Uniform Resource Locator

WP Work Package



1. Introduction

This report provides a basic understanding of key focal development principles considered during the implementation of INDIGO's website. In addition, a description of the website's current architectural structure and initial instantiation as of April 2016 is presented. The website was designed and implemented by R2M Solution, using the open source *WordPress* content management system (CMS).

Technical specifications, graphic reproductions, and future development strategies will be presented herewith and are subject to change as the consortium sees fit and project requirements evolve. The web design and development methodology, and preliminary plans to improve upon the existing communicative features and functionalities will continue through the project's first year. A continual improvement process loop is expected to take place through the project lifecycle thus fostering organic growth and in full consideration of the changing demands of its users. However, it is expected that after the first year within the project lifecycle, the info-graphic content and essential functionalities will be finalised and steadily gaining quantified public exposure on a large scale. Concurrently, it will serve as a unified contact point for related communications and public awareness raising initiatives.

R2M Solution will maintain the website throughout the project lifecycle, and oversee its evolution from inception to completion. Some of the many goals to be achieved include project cross cutting through knowledge transfer, data exchange and creative dissemination activities. The website is currently composed of twelve public webpages, and it is linked to a private portal reserved to the project consortium partners. The site also acts as synergistic landing page to optimise search engine rankings and create project awareness through a harmonic and robust online presence. Supportive communication channels heavily linked within the project website will align with current digital trends, and technical standards. Some examples include, but are not limited to, *Twitter*, *LinkedIn*, email newsletter. Unifying semiotics and colour schemes, as well as effective linkage to sister platforms and partnering websites, will ease the browsing process in parallel to increase stakeholder engagement.

There are several purposes of the website, most notably to allow for a unified identity and a platform for interested parties to quickly gain access to key project facts, scope and objectives. In order to make the website a lively environment with an identifiable brand identity, eliciting user involvement and gathering relevant data to support the achievement of project objectives, several methodologies will be borrowed from e-marketing best practices. This expanded visibility will help to convey a holistic and accurate depiction of project goals and results while stimulating two-way communications, both internally and externally.

The aspiration of the consortium goes beyond a final solution at this moment, but instead takes the lead of further enhancements both in terms of content and technologies according to the project stakeholders evolving needs. The over-arching objective of the website, in conjunction with the interrelated social networking profiles, is to foster cooperation among INDIGO consortium members, special interest groups, relevant research and/or commercial projects, and industrial initiatives such as events, workshops and newsfeeds.



2. Design and implementation

INDIGO website (www.indigo-project.eu) clearly describes the project specifications with a heavy use of info graphics and from a high level perspective. Subsequently, for interested parties, a clear path is set forth towards finding more technical and non-technical details as well as entry points for collaborations. The goal is for both visitors and administrators to have an interactive central landing page that can provide essential functionalities while being both informative and user-friendly.

The appearance of the website reflects the public image and identity of the project through a clean and simple functional design with key calls to action presented across several touch points. The site was officially launched on April 1st 2016. Essentially, an over-simplification of technical terms will occur and be presented in a user-friendly format so as to effectively teach visitors what the project is all about, why they should care, and how they can get involved.

3. Website content

The website design and content follows the specifications of WP7 "Communication and Results Dissemination". For a briefing of the evolving architectural and graphical user interface structure, in Figure 1 there is a hierarchical process map which was used to develop the overall navigation process while keeping user experience at the forefront of all decisions.

3.1 Architecture

The structure of the website is a key determining factor to its overall success. Grounded in user-centricity, surfers must not be confused as to where to find the desired information and they must be able to perform any call to action such as sharing or downloading documents within one or two clicks at the most. These actions should take less than 15 seconds at most so as to avoid a high drop off rate. Figure 1 outlines the initial vision for the site in a graphical process map to assist in high-level decisions and usability optimisation.

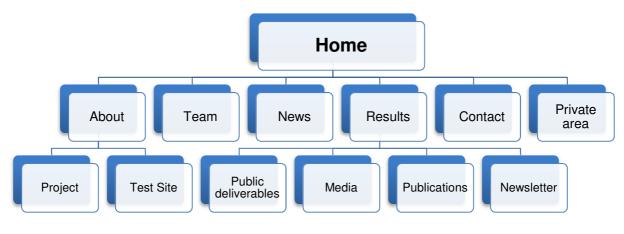


Figure 1

3.2 Project website components

There are several key widgets that will strategically be placed throughout the website: share in social media, LinkedIn, Twitter, etc. Incrementally, as the project dictations link up with the respective audiences, relevant social networking (SN) platforms or functionalities will be



added, such as, i.e.: email, save as, Reddit, YouTube, Pinterest, etc. The following subsections present some of the SN platforms we plan to use in the next few months. The intention is to create a comprehensive social media profile across several unified platforms and, subsequently, provide easy access points in many different locations while also sprinkling the links on most project public communications. These SN profiles will all share a common identifying colour scheme, informative keyword utilization, and other branding related KPIs such as tone of voice, calls to action, etc.

3.2.1 Social Network sharing widget

The pre-set page sharing widget available (Figure 2) will be implemented with further options to share page contents across several social media networking profiles, both innovative new technologies as well as proven powerhouse models.



3.2.2 Twitter widget

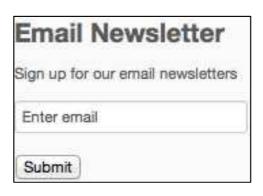
The historic list of tweets, to be posted by the INDIGO handle, will appear on all public pages, and provides an incremental call to follow the projects disseminated communications.

3.2.3 Newsletter subscription widget

Figure 3 shows the widget which is a call to action for joining the project newsletter subscription service. Once entered into the database, the system will recognize said contact as a project stakeholder and will trigger all future correspondences to be sent to that particular email address.

Figure 3 shows a front and back-end screenshot of the system allowing for users to subscribe to the project or other related newsletters. The front-end (Figure 3.b) is what the user acts upon, and the back-end (Figure 3.a) is how the administrator keeps track of the subscriber's contact details.





(b)

Figure 3



3.3 Webpages description

As the website is currently in an unfinished state, both in terms of structure and content, the following descriptions are simply a placeholder for the time being. Shortly, the final layout will be finalised and the info-graphics will replace the text.

3.3.1 Home

The home webpage is the website's landing page, and it is the destination if users click on the logo located on any of the webpages.

The home page is presented with three sliding banners, just below the header, with catching images and key messages. Then a short introduction of the justification of the project and lastly the status and coming up events. The latest news are presented on the right side. Finally, Twitter feeds will be added to the right side section.

3.3.2 **About**

This webpage describes the objectives of the project and it has two sub-pages: "Project", where we can find a summary of INDIGO's developments, and "Test site" where the real test scenario for the project, Basurto Hospital, is introduced. It will also be added information about the second test site in Barcelona.

3.3.3 Team

In this section of the website, there is a list of the project partners with a brief summary of their work, along with live hyperlinks leading to the respective partner's websites. This initiative will consolidate the assumption of transparency, which is an important aspect to publicly funded research.

3.3.4 News

Press releases related to INDIGO's core topic areas, both self-generated and authored by parties external to the consortium, will play a large part in the overall dissemination strategy and the overall success metrics of the project dissemination and exploitation activities.

3.3.5 Results

This webpage is dedicated to the dissemination of all the content created to promote the project: "Public deliverables" (available for download), "Media" (multimedia gallery with videos, pictures, presentations, etc.), "Publications" (contributions on conferences, papers, public events, etc.), and "Newsletter" (once a year).

3.3.6 Contact

A high level of stakeholder engagement will be critical, and the systematic operational processes and platforms will be standardized to assist in promotional efforts. To further assist stakeholder interaction, a contact form is provided in this webpage.

3.3.7 Private area

This is the entry point to the subdomain partners.indigo-project.eu, a private portal where members of the consortium can access and interact with all the work that is being done in the project. The private area not only is a place to store templates and working documents but also serves as a management tool for the development of INDIGO.



3.4 Synergies

Cross-platform streamlining helps to prove project identity, and to engage new stakeholder groups loyal to the platform in question. In other words, the project hopes to achieve a high level of dissemination, which cannot be achieved simply using a website and nothing else. Consequently, researchers must maintain a deep understanding of the rapidly changing technologies because these tools can bring about a globalized efficiency expansion by connecting stakeholders and being able to reach the desired audiences.

It is planned to open in the next few months a Twitter account and also a LinkedIn profile. In addition, the possibility of using other social media is in discussion.

4. Technical Details

The infrastructure supporting the INDIGO dedicated website are explained here, along with a brief introduction to the social media networking tools that can be considered.

4.1 Server and domain

The official registration of the domain name used for the INDIGO public website is http://www.indigo-project.eu. The domain name will be registered under the .eu domain for at least three years after the contractual end of the project completion. R2M Solution has committed to keep the website alive and active for at least that period of time. The web server is hosted using <code>WordPress 3.9.2</code>. We used the ARUBA hosting (hosting.aruba.it) using the Hosting Easy Linux plan. The plan includes Hosting with Linux operating system, MySQL server 5.5 as database, backup space for MySQL data, web space backup, unlimited emails, 10 GigaMails, IMAP emails, business emails and statistics. The web server is Apache, which includes PHP Version 5.5.17.

4.2 Maintenance

As administrators of the site, R2M Solution is directly responsible for leading the calls for contributions, graphic design, technical development and the overall online profile management. They will also continue to perform regular content updates ensuring that all press releases, journal publications, deliverables, etc., are posted in a timely manner. R2M Solution is responsible for and has the sole administrative rights to make modifications to the website's structural composition, and will elicit validation when necessary. There will not be any sub-contracting planned at this point in time, considering the experience and dedication of the programming personnel. The website will ultimately be designed to satisfy the project needs and aspirations while abiding to the communication strategy according to "EU project Websites – Best Practice Guidelines (March 2010)"¹.

4.3 Audience scorecard

A strong foundation in search engine optimisation will drive keyword rich social signals by intertwining the key project objectives with the desired stakeholder participation. The need for sufficient analytic responsiveness is the quintessential determining factor to allow for efficient and effective communications, and to help improve organic search rankings. For example, if we see that the majority of traffic is tracked to a specific geographical demographic or browser segmentation, we can adapt accordingly by pursuing more targeted approaches for the particular user group. The utility served by registering with Google Analytics² facility will allow

¹ http://www.eurosfaire.prd.fr/7pc/documents/1271333123 project website guidelines en.pdf

² http://www.google.com/analytics/



for rich reports to be generated and analysed accordingly, giving a very clear picture of information such as:

- Number of users visiting the site;
- What links and pages are more popular than others;
- · What websites the users are coming from;
- Where the visitors are coming from geographically.

It is imperative that we identify the project communication content that best reaches the targeted audiences, and concurrently be able to monitor communications campaigns.

Google Analytics has been embedded into the INDIGO website in order to analyse the visitation patterns, browser demographics, and other important insights required for growth to occur while keeping user-centricity at the forefront of adaptations.



5. Conclusions

The INDIGO website is an integral element of the project dissemination strategy and will simultaneously ensure project visibility and facilitate the diffusion of exploitable results. The website provides a basic set of information about the project and will be regularly updated with scientific results, findings and achievements.

Popularity and promotion of the site will be increased through active link-building initiatives to capitalize on the existing websites and social networking platforms of project partners. Relevant EU projects, institutions and thought-leaders within the stakeholder group(s) will become the primary targets after using appropriate methods to build the communicative reach.

The information contained on the project website is likely to be valuable even after the project has finished. Therefore, R2M Solution aims at ensuring that the website will continue to exist after the project implementation period has finished, i.e. bookmarks and published URLs will continue to function.

Image-centricity and the deployment of cutting edge digital trends and innovative technologies across all applicable networking platforms is one of many goals for the website, which will elevate the public interest and assist to build a community that is eager for the INDIGO's content updates. Using attractive and well-placed images within the website and social media posts, as well as using info-graphics to drive traffic and build inbound links, will be top priority moving forward.

The project website will be a dynamic, vibrant piece of infrastructure that is continuously updated as the needs of the project change, content is generated by all work packages, and improved software tools become available. Short term improvements to the website under consideration, at the time of writing, include:

- Identifying and defining a coherent historical blog rollout infrastructure;
- Streamlining communications strategy for the project and associated press releases;
- Identifying appropriate integration points of the project website with popular social platforms;
- Choosing any standards we wish to embrace to ensure accessibility and consistent rendering;
- Enabling localisation of content update authorship accessibility and operational pecking order;
- Determining what, if any, media-rich resources such as animations and movies could add value:
- RSS Newsfeed establishment and launch of the newsletter to subscribers.

All changes to the website will be driven by the needs of the project as they arise throughout the lifetime of the project, and in consultation with the appropriate project partners. Descriptions of these changes, and an analysis of the usage of the web facilities in general, will be included in future deliverables, along with most of the major project milestones and achievements.



6. Appendix Initial content

Screenshots of the webpages.

6.1 Home page



ABOUT TEAM

NEWS

RESULTS

CONTACT

INTRANET

HOME



Why INDIGO?

The European market for space cooling can be characterized as a still under-developed field. The saturation of cooling demand is significantly lower than other countries where the tradition of using air conditioning is older. New building designs, higher internal heat loads, urban heat island effects and comfort issues are the main reasons for the increase in cooling demand which specially take place in buildings in the service sector. If small scale and distributed conventional electric chillers are used to satisfy this demand, a significant rise in peak electricity demand and, consequently, a peak in greenhouse gas emissions and primary energy consumption will occur. This is the reason why the Energy Efficiency Directive (EED) has recognised District Cooling systems as one of the important pillars for achieving the energy efficiency target of reducing primary energy consumption by 20%. In the same way, the SETIS report identifies the District Cooling technology as "Best Available Technology" for the cooling market in EU. The main objective of INDIGO is the development of a more efficient, intelligent and economical competitive generation of DC systems by improving system planning, control and management.

Latest News

Kick-off Meeting

INDIGO's Kick-off Meeting was held in Bilbao, Spain on March 3th and 4th. The event was organized by Giroa-Veolia, in their quality of INDIGO's coordinator.

Read more

Status & Coming up Next

After the Kick Off Meeting at beginning of March in Bilbao, hosted by Giroa-Veolia, we are on schedule, releasing in month 1 of 42 our website. At month 4 we will present a public report on the validation of the test sites scenarios for INDIGO. In September 2016, the partners will meet for a follow-up meeting at Parhosted by R2M.







6.2 About

About INDIGO

INDIGO, a 3 and a half year project, aims to develop a more efficient, intelligent and economical generation of District Cooling 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:
 - $\circ\,$ 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
- Primary energy reduction 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:
 - o Integration of Renewable Energy Sources;
 - Dealing with different types of cooling sources;
- o Suitable coupling between generation, storage and demand.

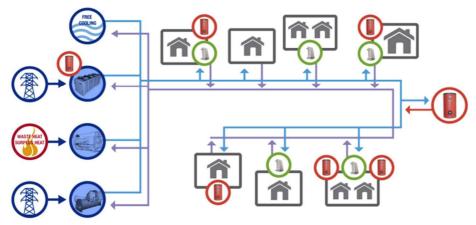
All this, with the help of intelligent and innovative component controllers (Predictive Controllers) to be developed at all DC system levels. Some of them include embedded self-learning algorithms, allowing components to respond appropriately to the set-points established.

Developments carried out within INDIGO will be validated in a real District Heating and Cooling installation with appropriate conditions for testing the new functionalities.

6.2.1 About - Project

INDIGO Project

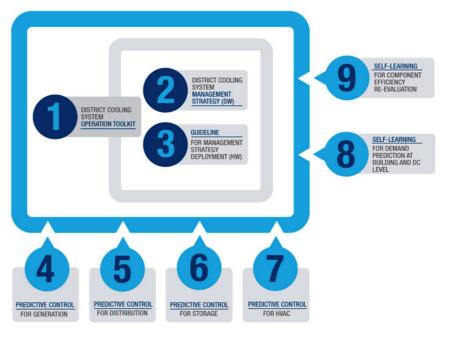
The main objective of INDIGO is the development of a more efficient, intelligent, and cheaper generation of District Cooling (DC) systems by improving system planning, control and management involving all components and levels of a DC system.



DC system components: generation (blue), distribution (arrows), storage (red) and consumption (red).



INDIGO involves the development of a highly efficient and intelligent DC system based on 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. Besides, open source tools and guidelines will be developed within the project in order to provide more confidence and thus more openness to DC systems development and use.



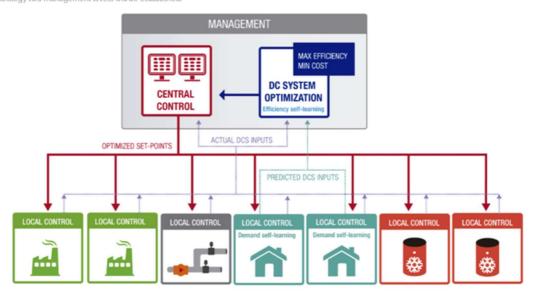
INDIGO modular approach developments

Development of an innovative and optimized global DC system Management Strategy

The management strategy is the first control level of the DC system. Its main target is to schedule the energy supply in order to cover the energy demand at each moment.

INDIGO will develop an innovative and optimized management strategy (algorithms) focused mainly on energy efficiency maximization but also on energy cost minimization, taking into account at the same time other factors like greenhouse gas emissions, system payback time, etc.

One of the main characteristics of this innovative and optimized strategy is the predictive management: INDIGO DC system manager will consider predicted values for the consumers' demand, the meteorological conditions and the price of energy (in connection with intelligent gas and electricity networks). In order to develop this strategy two management levels will be established.



District Cooling Systems' Stakeholders Empowerment

INDIGO goes beyond the conceptual idea of an optimized DC system and aims to develop specific tools that would provide more confidence and thus more openness to DC systems deployment and use. For this purpose, the following stakeholders are considered:

Consumers: as end users of the systems, but increasingly aware of the consequences of their consumption (costs, environment)

Public administration: depending on the country/region, more or less involved in district energy development projects, but most of the times acting as project assessors.

Private ESCO: as responsible of DC system design, deployment, and O&M.



6.2.2 About - Team

Partners

INDIGO is conformed by 6 partners from 5 different countries: Spain, Finland, Switzerland, Ireland and Italy. Giroa-Veolia is the coordinator of the project.

GIROA-VEOLIA



GIROA is the specialist of energy and environment management services company of Veolia also dedicated to the maintenance, conservation and adaptation of buildings, installations and complexes of different nature, in order to improve their comfort, performance and security in a less expensive way. GIROA company with more than 20 years of experience in the market, where it has been a forerunner in the Saving Share and in

the Guarantee of Results, has created a new conception of job and service, based on a pragmatic approach to the demands of its clients.

www.veolia.es

IK4-TEKNIKER



IK4 is a private Alliance, made up of 9 Technological Centres. Its mission is the generation, uptake and transfer of technological knowledge and know-how, aimed at enhancing the competitiveness of the business fabric in its entrepreneurial environment, through innovation and in a global context marked by competitiveness.

IK4-TEKNIKER, is one of these nine technological Centers and it was legally formed in 1981 as a non-profit making Foundation, being renowned Centre of Manufacturing Technologies. Preferential sectors covered include Energy, Machine Tool and manufacturing, Automobile sector, Aeronautics and Space, and biomedicine.

www.tekniker.es/en

VTT



VTT Technical Research Centre of Finland Ltd is a state owned non-profit limited liability company established by law and operating under the ownership steering of the Finnish Ministry of Employment and the Economy.

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multi-technological knowledge base, VTT can combine different technologies, produce information, upgrade technology knowledge, and create business intelligence and value added for its stakeholders.

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CSEM



NUIG



- Southing the Cycle accepted because Continuous and physical data generators to enhance building performance
 Health, safety and comfort of built environments.
 Simulation (CFD, whole building and reduced order modelling):
 Building Information Modelling (IFC BIM):
- · Systems integration and optimisation
- Improved instrumentation in buildings



R2M



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6.3 News

NEWS







4th April 2016 0 0 UNCATEGORISED

Kick-Off Meeting

INDIGO's Kick-off Meeting was held in Bilbao, Spain on March 3th and 4th. The event was organized by Giroa-Veolia, in their quality of INDIGO's coordinator.

CONTINUE READING



by admin

6.4 Results

INDIGO's Public Deliverables

Validation sites scenarios [D6:1] VEOLIA

This report will include the specific analysis of each test site (Barc

Generation systems detailed models [D2.1] TEXNIKER

Distribution and storage systems detailed models [D2.2] TEKNIKER

Guidelines about predictive control development and implementation at DC systems [D3.10] CSEM

Validation report [D6:5] VEOLIA

As results are developed, collateral will be uploaded.



6.5 Contact

Are you interested in voicing your of	opinion?
Sharing your stories?	
Getting involved as a stakeholder?	
Joining our Twitter following?	
Receiving our email newsletter?	
Taking an "expert" questionnaire?	

and an experi deconstraint.	
We want to hear from you! Please don't hesitate to contacting us through the form	Enter the
re want to real north you. Flease won't resitate to contacting as a nough are forth	 3.5

Name:	Phone:
E-mail:	Area Code Phone Number
	Enter the message as it's shown:
Message:	3a67x2 D
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