H2020 Work Programme

D7.4 – UPDATE OF DISSEMINATION AND COMMUNICATION PLAN

Lead Contractor: Sustainable Innovations Europe (SIE)

Date: 24/11/2020

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Project title			
Supporting new Opportunities for Waste Heat And cold valorisation Towards EU decarbonization			
Project acronym	SO WHAT	**Start / Duration**	June 2019 (36 months)
Coordinator	Rina Consulting S.p.A. – RINA-C		
Website	www.sowhatproject.eu		

Deliverable details			
Number	7.4		
Title	Update of Dissemination and Communication Plan		
Work Package	7		
Dissemination level[1]	PU = Public	**Nature**	Report
Due date (M)	30.11.2020 (M18)	**Submission date (M)**	24.11.2020
Deliverable responsible	Sustainable Innovations Europe – SIE		

[1] PU = Public
CO = Confidential, only for members of the consortium (including Commission Services)

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Document History		
Date	**Version**	**Changes**
06.10.2020	1	First draft
08.10.2020	2	Implemented some changes from the technical reviewer
28.10.2020	3	All feedback from partners implemented
18.11.2020	4	Inclusion of last information (webinar, press release and final analytics)
24/11/2020	Final	Introduction of last corrections and quality checks

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Acronyms and abbreviations

AC: Academia
AS: Associations
CF: Consulting firms
DHC: District Heating and Cooling operators
EA: Energy agencies
EC: European Commission
EU: European Union
GP: General Public
HRE: Heat Recovery
IP: Industrial parks
IS: Industrial sites
LCT: Life-cycle-thinking
PA: Public authorities
PM: Policy makers
RES: Renewable Energy Sources
TM: Trade media
WH/R: Waste heat recovery technologies
WH/C: Waste Heat and Cold

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EXECUTIVE SUMMARY

This document contains an update of the Dissemination and Communication Plan that outlines the activities undertaken in the first 18 months, as well as the actions to be adopted next and until the final version is issued at the end of SO WHAT project (M36).

The objective of the communication and dissemination activities of the SO WHAT project is to ensure information about the project's objectives and results are effectively disseminated to relevant audiences and to promote the use of project results by the relevant industry stakeholders.
The Communication and Dissemination plan delivered in M6 identified the goals and approaches for providing information about the SO WHAT project to the target audiences at local, national and EU level. This included defining key messages and selecting appropriate tools and channels (including relevant conferences and events) to effectively disseminate the outcomes of the project.
The purpose of this document for the SO WHAT project is to formalize dissemination and communication actions, as well as to provide guidelines on the approach. Marketing media, the press, magazines, broadcast news, television, radio and Internet;

The main objectives of the Dissemination and Communication Plan are:

- To document undertaken and proposed dissemination and communication activities through a detailed and updated plan.
- To ensure the project results reach the relevant stakeholders for a wider waste heat and cold (WH/C) exploitation promotion.
- To raise interest in the proposed technology, of potentially interested parties across relevant stakeholders.
- To promote WH/C recovery projects, along with the benefits they can provide, toward potential target end-users/adopters to speed up renewables (RES) energies adoption and take-up in industrial process.
- To promote proactively education and training to various audiences on the SO WHAT project and its results by providing targeted information.

The main goal of this update is to review the activities carried out and to analyse their performance and impact, assessing whether corrective actions are needed.

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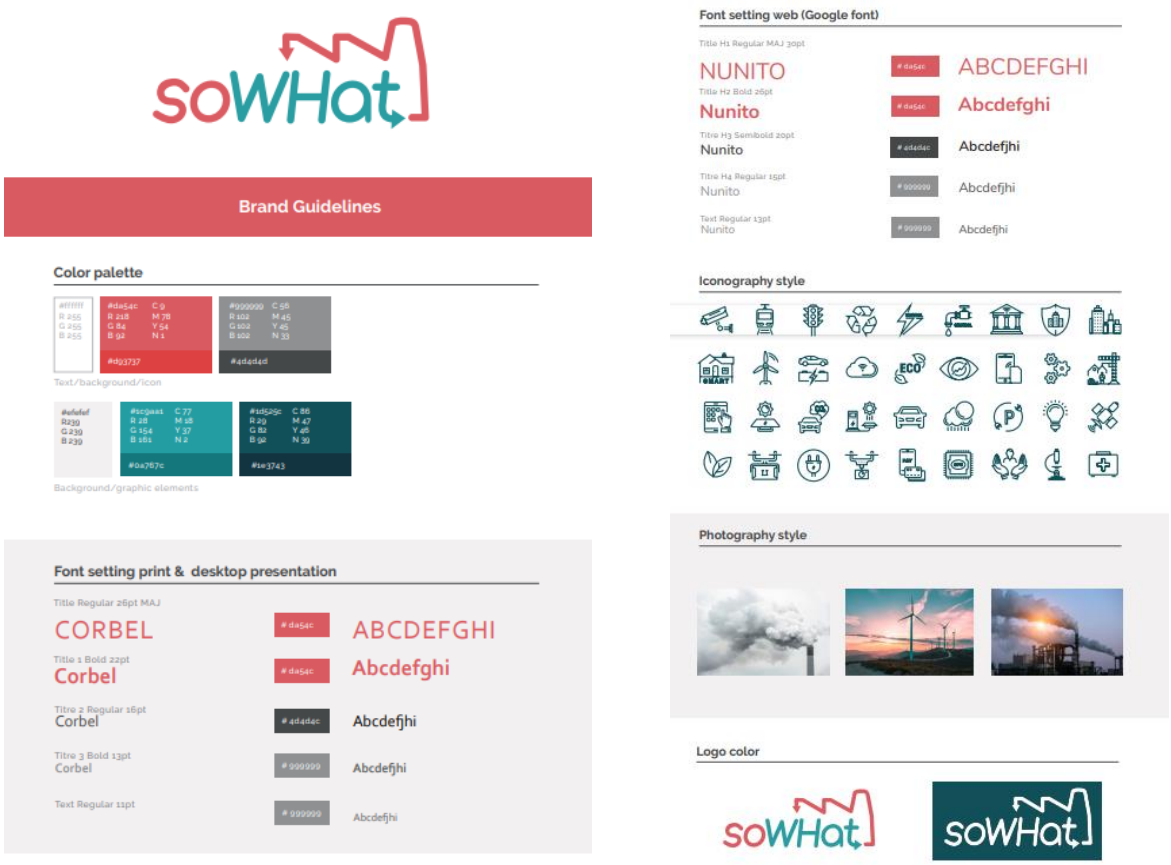
1 REVIEW ACTIONS M1-M18

1.1 Project branding development and printed materials

At the beginning of the project, SIE worked on the corporate branding defining the colour palette, font setting and iconography style.

Image 1: SO WHAT brand guidelines



Following this, the brochure, poster, roll up and factsheet were produced and uploaded to the website: https://sowhatproject.eu/documents/#downloads Likewise, a project presentation with generic information was also delivered to suit the partner dissemination needs.

In terms of internal communication, SIE also developed in month 1 the necessary templates for the different management needs (i.e. Word, PowerPoint and deliverable templates), following the corporate brand guidelines and engaged with the partner coordinators RINA and IES, and with the rest of the consortium partners to ensure their correct use.

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Image 2: SO WHAT brochure

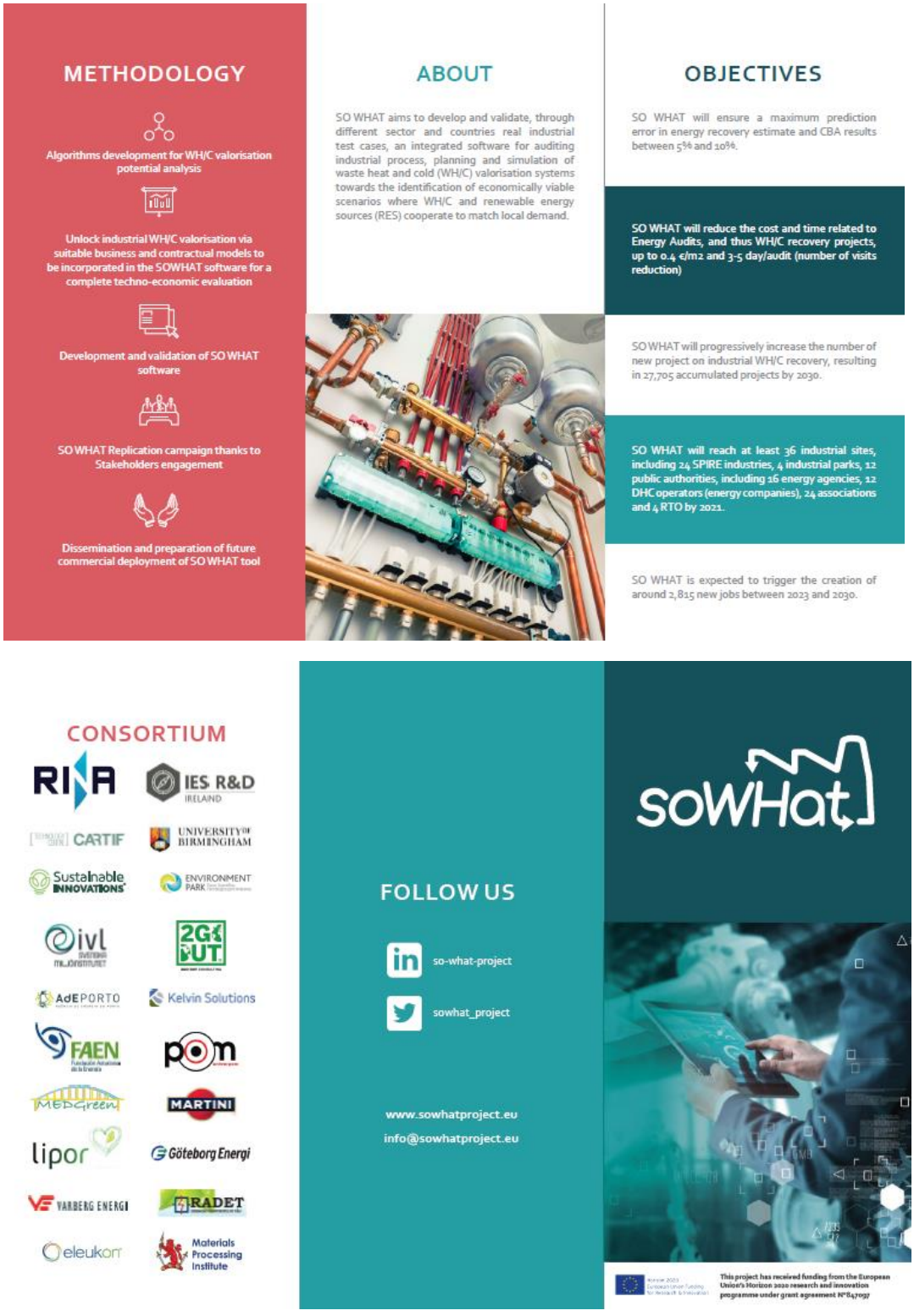

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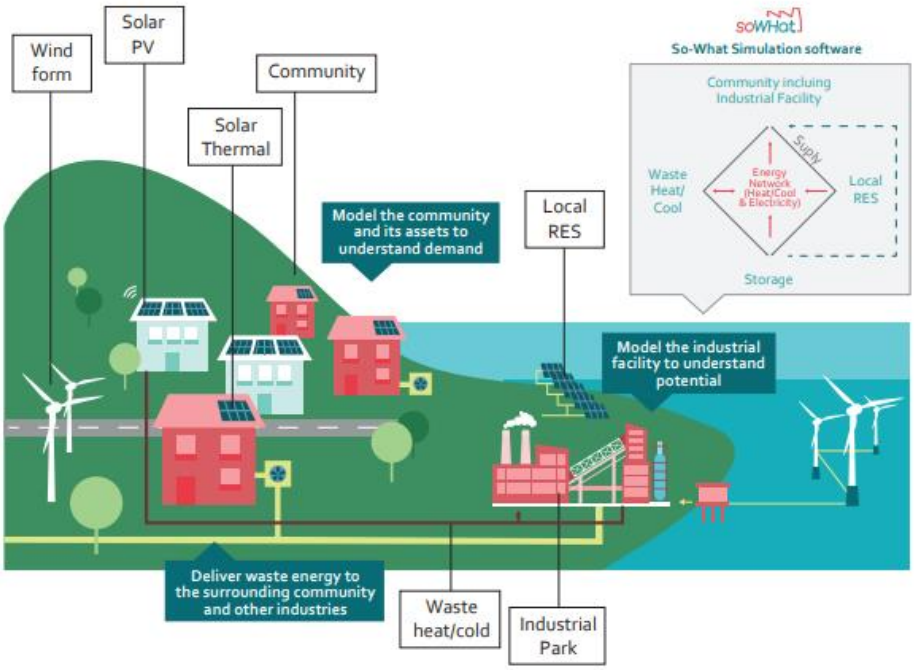
Image 3: SO WHAT poster

OVERALL CONCEPT

SO-WHAT will develop a first-of-a-kind simulation software that will:

- Model an industrial facility and identify potential with respect to waste heat, cool (H/C) and surplus RES
- Model the community and its assets (e.g. local RES, storage, flexible loads etc.) to understand the demand profile of the community, which can utilise the waste H/C and RES
- Identify the delivery mechanism(s) for how waste H/C and surplus RES can be provided to the Community and/or other industries and the technical, commercial, legal and financial incentives for doing so.



so-what-project
www.sowhatproject.eu
sowhat_project
info@sowhatproject.eu

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Image 4: SO WHAT roll up

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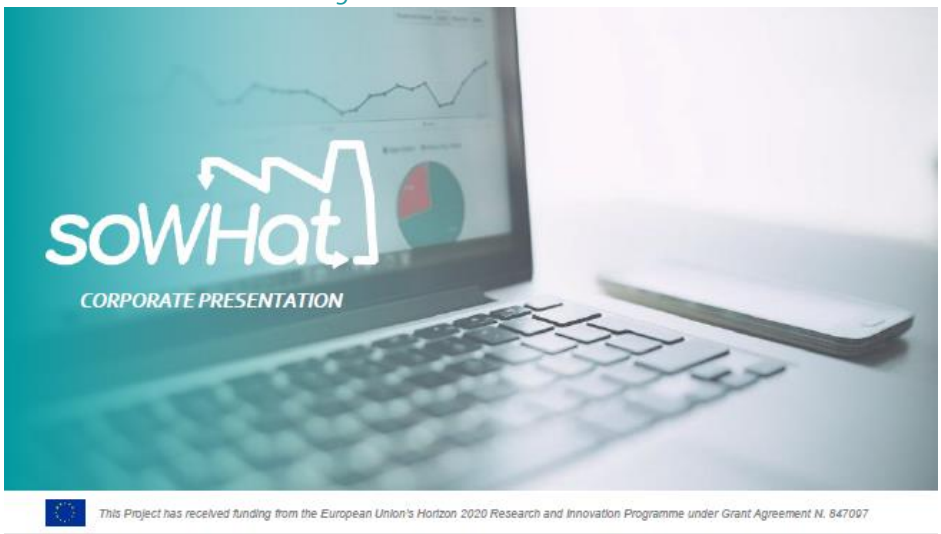
Image 5: SO WHAT factsheet

Image 6: SO WHAT Presentation



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ABOUT

The project

SO WHAT aims to develop and validate, through different sector and countries real industrial test cases, an integrated software for auditing industrial process, planning and simulation of waste heat and cold (WH/C) valorisation systems towards the identification of economically viable scenarios where WH/C and renewable energy sources (RES) cooperate to match local demand.

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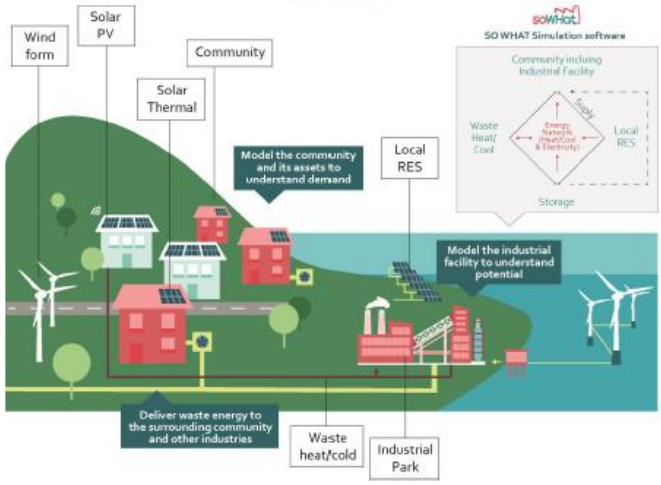

3

METHODOLOGY

- Algorithms development for WH/C valorisation potential analysis
- Development and validation of SO WHAT software
- Unlock industrial WH/C valorisation via suitable business and contractual models to be incorporated in the SOWHAT software for a complete techno-economic evaluation
- SO WHAT Replication campaign thanks to Stakeholders engagement
- Dissemination and preparation of future commercial deployment of SO WHAT tool

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OBJECTIVES

1. SO WHAT will ensure a maximum prediction error in energy recovery estimate and CBA results between 5% and 10%.
2. SO WHAT will reduce the cost and time related to Energy Audits, and thus WH/C recovery projects, up to 0.4 €/m2 and 3-5 day/audit (number of visits reduction)
3. SO WHAT will progressively increase the number of new project on industrial WH/C recovery, resulting in 27,705 accumulated projects by 2030.
4. SO WHAT will reach at least 36 industrial sites, including 24 SPIRE industries, 4 industrial parks, 12 public authorities, including 16 energy agencies, 12 DHC operators (energy companies), 24 associations and 4 RTO by 2021.
5. SO WHAT is expected to trigger the creation of around 2,815 new jobs between 2023 and 2030.

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CONSORTIUM

RINA · AdEPORTO · MEDgreen · UNIVERSITY OF BIRMINGHAM · Sustainable INNOVATIONS · IES R&D IRELAND · CARTIF · 2G UT · Göteborg Energi · pon · FAEN · lipor · eleukon · ENVIRONMENT PARK · Kelvin Solutions · RADET · ivl SVENSKA MILJÖINSTITUTET · VE VARBERG ENERGI · MARTINI · Materials Processing Institute

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WWW.SOWHATPROJECT.EU

SO-WHAT-PROJECT

SOWHAT_PROJECT

Info@sowhatproject.eu

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1.2 Online actions

1.2.1 Website

SIE, in collaboration with the consortium partners, launched the project website https://sowhatproject.eu/ (deliverable 7.1) in August 2019 (M3).

On the menu, the following sections were created: About, Documents, Training, News, Contact and Private area.

The 'About' submenu comprises four (4) subsections to introduce the project: Project, Partners, Demo Sites and Related Projects. The first one includes also three (3) subsections: Objectives, Impact, Implementation. They briefly present the value proposition of the SO WHAT project including pictures, graphics, figures and messages to let the audience understand what the project is about and why it is innovative and marketable. The Partners section includes a description of each organisation involved in the project. The Demo Sites includes all the 11 validation sites with a picture and a short description. While the related projects section presents similar initiatives and links to their websites.

On the 'Documents' submenu, visitors can find all the project documents (press releases, newsletters, marketing materials) as well as the public deliverables submitted to the European Commission project portal.

On the training area all the relevant information related to the formative sections and the capacity building materials will be located. The e-Learning sections will be settled on the project website and maintained using the latest technology to develop a user-friendly platform. The e-learning section will be designed with an easy-to-follow structure with clear, modern graphics design focused on presenting the value of the content. From these aspects, SO WHAT has successfully launched the website, it will require further development of it to manage aspects, like registrations and the log-in access towards the training material and session.

The 'News' submenu is useful to inform on recent developments within the project.

The 'Contact' section presents the project coordinator's contact details and a field's box where audiences can send messages that will be directed to the coordinator or partners when appropriate via a dedicated email address: info@sowhatproject.eu.

Social media icons (LinkedIn, Twitter and YouTube) appear in the header, while the generic contact email and the coordinator's phone number, in the footer.

As a living platform, the website has evolved during the project to include the first project video on the homepage, to include the YouTube link on the top of the page, to include the "Demo Sites" and "Related Projects" sections, to inform about the latest project advancement and outcomes in the News section, and to upload the submitted deliverables and the available project documents.

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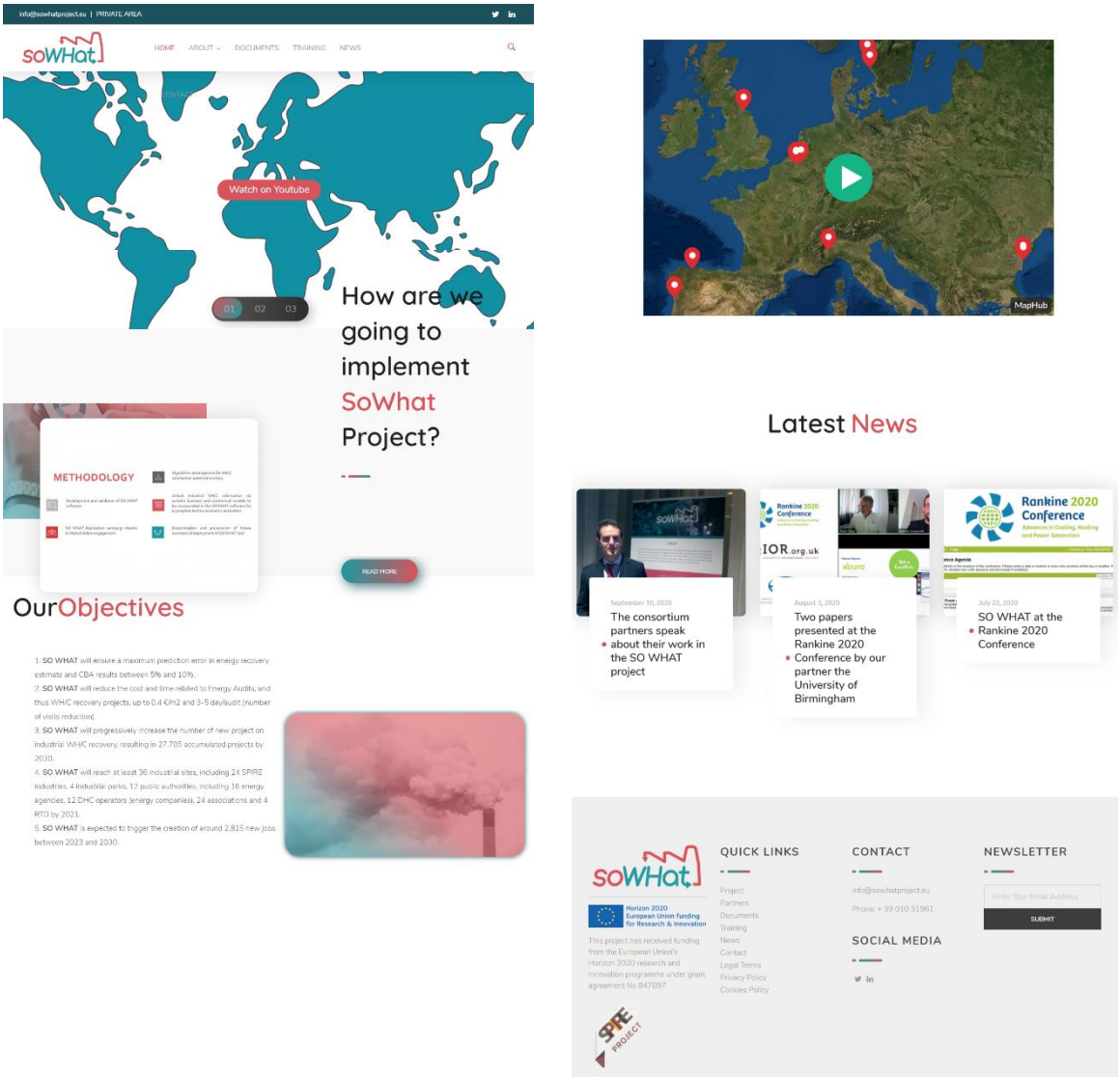
Image 10: Website Homepage



During the first 18 months of the project, the following documents have been uploaded:

REPORTS:

- Report on current contractual arrangement for WHC exploitation
- Requirements for data formats and indicators
- Report on currents barriers to industrial WHC recovery and exploitation.
- First Release of SO WHAT Industrial Sector WH/C recovery potential
- Report on WH/C recovery technologies and thermal storage technologies
- Report on end user´s Current Status
- Project Website and Social Media
- First Version of Dissemination and Communication Plan
- SO WHAT Training plan

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NEWSLETTERS

- First So What Newsletter
- Second So What Newsletter
- Third So What Newsletter
- Fourth So What Newsletter
- Fifth So What Newsletter

COMMUNICATION AND DISSEMINATION MATERIALS

- Brochure
- Roll-Up
- Poster
- So What Corporate Presentation

BRAND GUIDELINES

- Brand guidelines So What
- Logo So What
- Logo So What White

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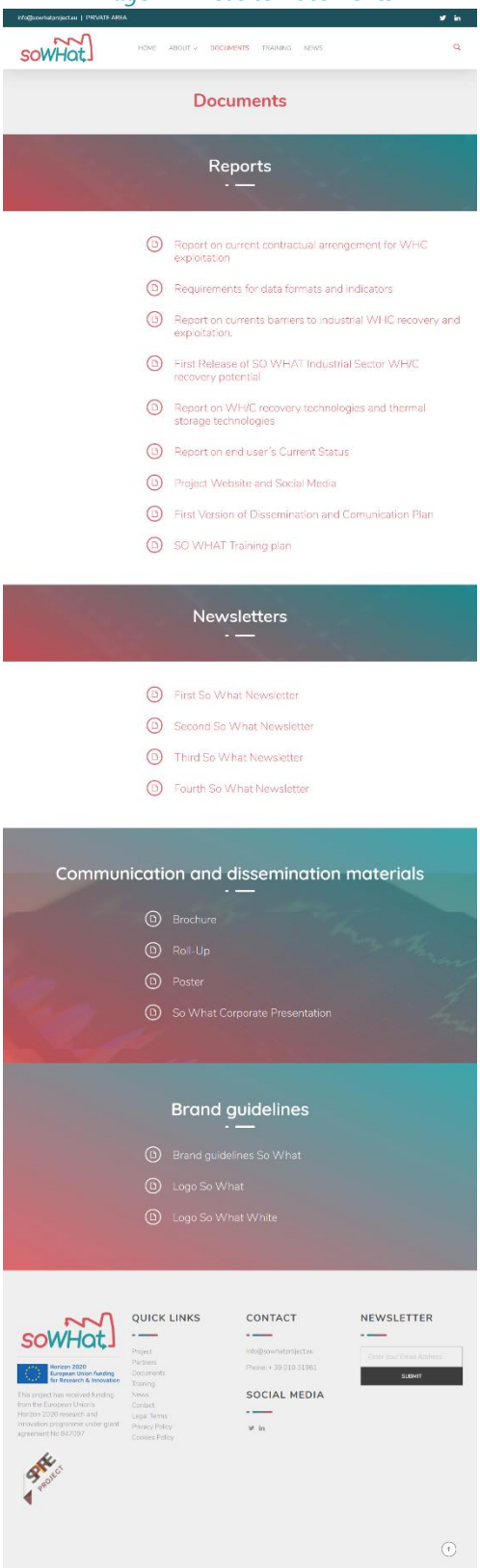
Image 11: Website Documents



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13 posts about the project outcomes, participation of the consortium partners in events and other relevant milestones have been uploaded since the project kicked-off in June 2019:

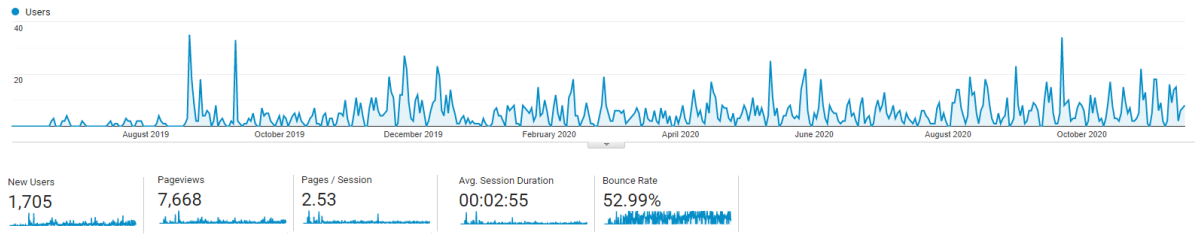
- SO WHAT hosts meeting, co-creation workshop and panel in Antwerp
- User requirements for the SO WHAT tool
- SO WHAT hosts online consortium meeting
- The consortium partners speak about the importance of the SO WHAT project
- SO WHAT Project Exploitation Workshop
- SO WHAT at the Rankine 2020 Conference
- Two papers presented at the Rankine 2020 Conference by our partner the University of Birmingham
- The consortium partners speak about their work in the SO WHAT project
- SO WHAT holds consortium meeting
- SO WHAT hosts webinar with related projects
- SO WHAT at Sustainable Places
- R-ACES to join SO WHAT webinar on waste heat recovery and energy cooperation

In the first 18 months of the project, SO WHAT has gained 1,705 new users on its website, with 7,668-page views in total and an average session duration of 2 minutes 55 seconds.

At the beginning of the project, a KPI of 1,500 visitors and an average of 2.5 minutes stay was established. The stay rate is already achieved, and at the current rate the number of visitors is likely to be achieved too by the end of the project. Moreover, the number of pageviews is 7,668, quite a high number for the project's current stage.

A common session duration is usually between 1 and 2 minutes, the 2:55 minutes achieved indicates high visitor engagement and interest in the project.

Image 12: Website Analytics (17/11/2020)



1.2.2 Newsletter

Electronic newsletters are been prepared every 3 months, and include project updates, announcements, interviews and other information related to SO WHAT. They are distributed to stakeholders and partner networks and posted on the project website.

From the beginning of the project, a Mailchimp (mailing platform) account was established and the possibility to subscribe to the newsletter via the website was given to visitors.

So far, five of them were issued (M3, M6, M9, M12, M15) and uploaded to the project website / documents / newsletters. Each time the Newsletter is released a campaign in social media follows.

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Table 1: Newsletter impact

	Mailchimp	Twitter	LinkedIn
1st newsletter	0	675	258 impressions
2nd newsletter	52 recipients (14 readers)	4,056	614 impressions
3rd newsletter	68 recipients (29 readers)	3,922	3,075 impressions
4th newsletter	324 recipients (91 readers)	642	521 impressions
5th newsletter	322 recipients (88 readers)	1,391	830 impressions

Here it is important to highlight that those newsletters that reached a bigger impact on Twitter were retweeted by some of the partners, such as CARTIF, IES, FAEN and the University of Birmingham.

1,000 recipients are expected by the end of the project. Although this is not easy to achieve due to GDPR through the mailchimp distribution, it is certainly feasible if the number of readers reached on social media are included. Right now, there is an average of 2,137 people reached by the newsletter on Twitter, and 1,059 on LinkedIn.

1.2.3 Social media

The first social media channels (LinkedIn and Twitter) were set up by SIE in M1, while the YouTube channel was created once the first official video of the project was released in M6.

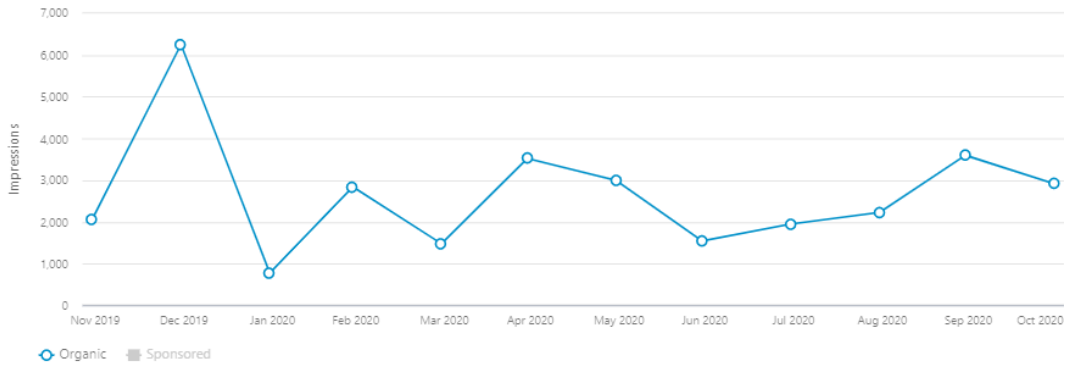
1.2.3.1 LinkedIn

SO WHAT presence in LinkedIn has reached 397 followers after 60 updates (posts).

The engagement rate of this platform is, in average, 8.2% (more than 3% is usually considered excellent performance).

The number of impressions (views) has grown to reach 34,474 by November 17, 2020. A peak on the views was registered during our General Assembly meeting, co-creation workshop and participation in District Heating Workshop in Antwerp in December. In addition, April 2020 saw another peak due to our second General Assembly Meeting and Exploitation workshop, and also September after the summer, potentially this last one related to the launch of the newsletter and the creation of new relevant content such as the demo sites and the related project sections on the website.

Image 13: LinkedIn impressions from November 2019 to October 2020. LinkedIn shows analytics for only the last 12 months.



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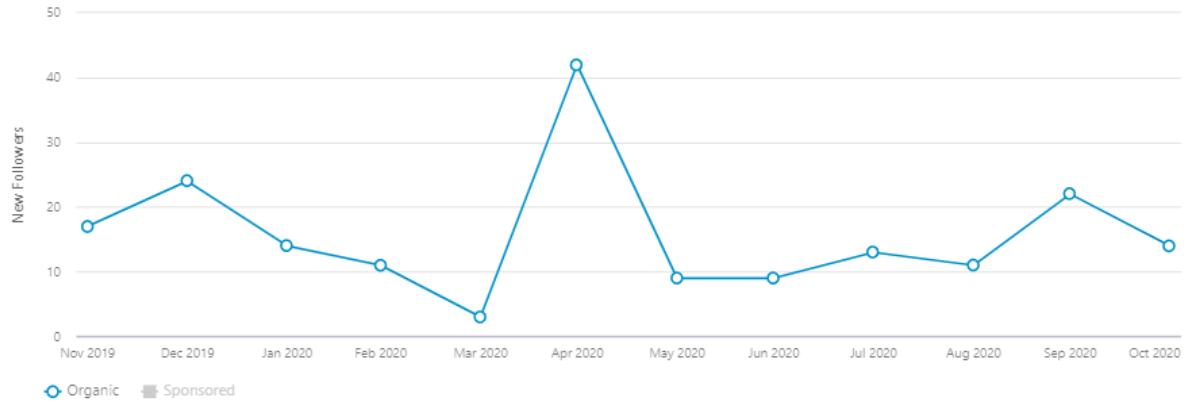
The same peaks that can be seen regarding impressions of the publications is perceived when looking at the followers trends.

Image 14. LinkedIn followers from November 2019 to October 2020.



When it comes to the demographics of the users visiting our LinkedIn page, between one fourth and one fifth of them are engineers.

Image 15. LinkedIn page visitors by industry from September 2019 to August 2020.

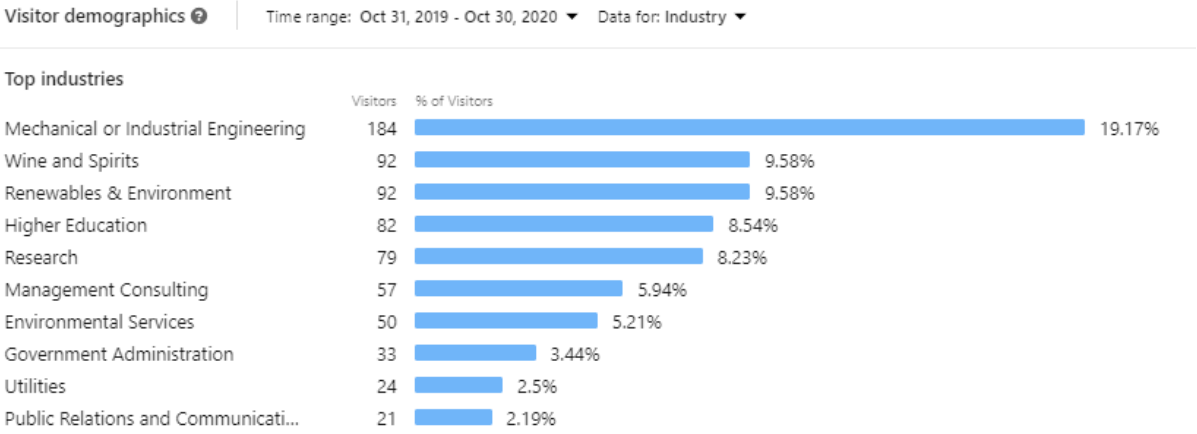
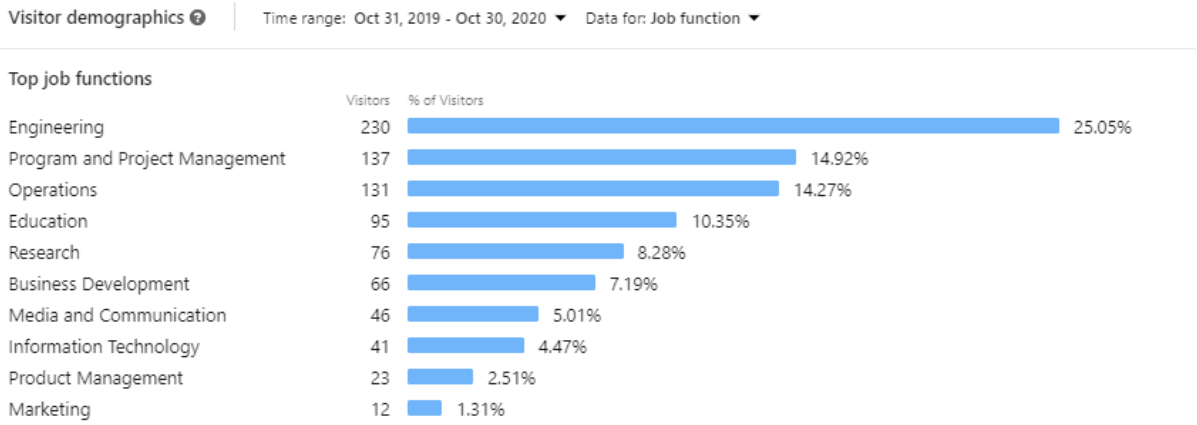


Image 16. LinkedIn page visitors by job function from September 2019 to August 2020.



1.2.3.2 Twitter

As of November 17, 2020, SO WHAT has 103 followers on Twitter and 106 tweets. The current engagement rate is 2%. Anything above 0.5% is considered a very great level of engagement, which

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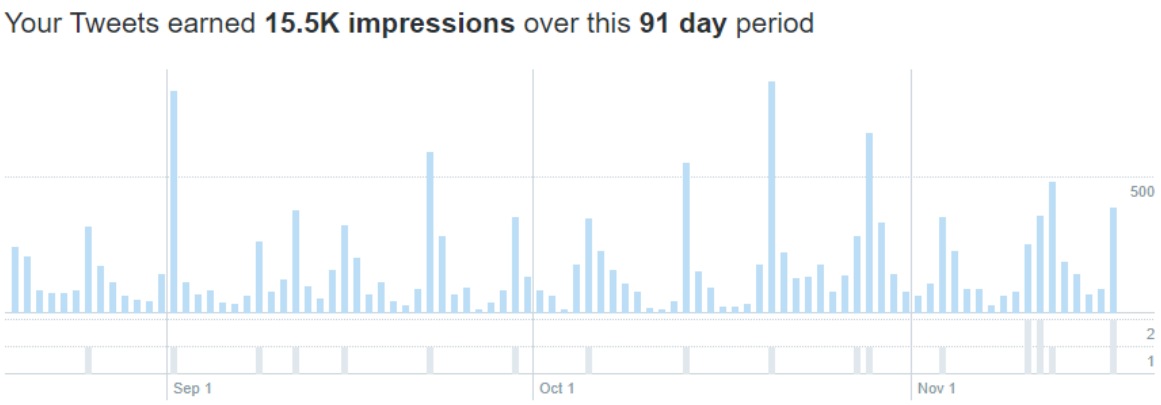
shows that the project Twitter followers are qualified leads, and they are interested in the project. The contents on the profile have generated 82,500 views. One of the main differences between the analytics of LinkedIn and Twitter remains mainly in the nature of each of them. All the professional contacts are more frequently found on LinkedIn, while Twitter is usually more oriented to a personal use. The reason to be on Twitter is that the number of views that is usually higher than on LinkedIn.

Image 17. Impressions on Twitter



1.2.3.3 YouTube

At least two videos were expected to be produced along the project life. The first SO WHAT project video was produced and uploaded to YouTube in M7.

To date, the channel has 8 subscribers and SO WHAT has made 5 videos public: the project video already described above and four interviews with the SO WHAT Consortium members carried out during the M6 General Assembly meeting. In total these videos have received 514 views.

The interviews with the consortium members were conducted during the M6 meeting in Antwerp and resulted in 4 videos. SIE has been releasing each of them in differentiated social media campaigns throughout the period from March to May 2020 in order to keep interest high by releasing a steady stream of content. This is particularly important during the current Coronavirus pandemic, which makes it more difficult to generate new content as fewer meetings and events are taking place.

1.3 Offline actions

1.3.1 Press Release

A press release to announce the joint webinar with related projects was launched on November 3rd. It was shared to 60 media outlets / journalists, it was uploaded to Buildup and to the Cordis News Portal, as well as to the Alphagalileo website. In addition, all the projects shared the news on their own website.

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Image 18. Press release launched on November 3

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SO WHAT, EMB3RS, INCUBIS AND S-PARCS TO HOST WEBINAR ON INDUSTRIAL WASTE HEAT RECOVERY

Genoa, Italy, November 3, 2020. The smart and sustainable energy projects SO WHAT, EMB3RS, INCUBIS and S-PARCS, are organizing a joint webinar: Waste heat recovery and energy cooperation in European Industries, to be held on November 18. These four sister initiatives, funded under the European Union's Horizon 2020 research and innovation programme, will present their work on industrial WH/C recovery, the tools they are developing to empower it, and potential synergies between industrial parks and the surrounding community.

The aim of the session is to explore different solutions to enhance a smart and sustainable energy use in industrial contexts, as well as WH/C recovery and reutilization, to find synergies between the work the different projects are carrying out, and to raise awareness among stakeholders on the new tools under development. Likewise, the webinar will include time for discussion and questions from the audience. Participants will leave with a deeper understanding of how to optimize energy use and recovery in industrial environments.

Heating and cooling are the largest sources of energy demand in Europe and, at the moment, they are mainly covered by fossil fuels, while low carbon energy sources like waste heat and cold recovery and renewable energy sources remain marginal. Nevertheless, current studies showed that, in the would be sufficient to cover the entire EU's heating needs. This would foster the EU's decarbonisation while reducing its dependence on fossil fuels.

To achieve this, several projects are developing technologies and software tools to facilitate waste heat and cold recovery, as well as the integration of cooling and heating demand with renewable energy sources.

SO WHAT (acronym for Supporting new Opportunities for Waste Heat And cold valorisation Towards EU Decarbonization) is developing an integrated software to identify and simulate how industrial WH/C could cost-effectively balance with the local community's forecasted energy demand, and how this could be integrated with renewable energy systems. The tool, designed to support different stakeholders in auditing and mapping their energy processes, will assess the impact of energy processes on both a technical and non-technical level and help to reduce the cost of energy audits. This will be validated by 11 demonstration sites that will test the software in real operating conditions in industrial facilities.

EMB3Rs (User-driven Energy-Matching & Business Prospection Tool for Industrial Excess Heat / Cold Reduction, Recovery and Redistribution) is investigating the potential of recycling industrial excess heat and cold and designing a platform that explores how energy – normally wasted by releasing it into the environment – could be reused as a valuable source for other industrial processes, district heating and cooling or further purposes.

INCUBIS (An Energy Symbiosis Incubator for Maximizing Energy Efficiency in Industrial Parks and Districts) will develop a set of tools and support services to help key stakeholders in Industrial Parks and Districts in the development and implementation of Energy Symbiosis projects. Energy

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Since the project's beginning, consortium partners have contributed to the dissemination of the project by publishing news on their own corporate websites and sharing them with local media. There has been a total of 29 articles published, as shown in Annex I.

1.3.2 Events organised

During the first 18 months of the SO WHAT project, there was one co-creation workshop organised in Antwerp, Belgium. During this design thinking session, the consortium members and external guests joined in a dynamic exercise to define the requirements for the tool that SO WHAT is developing. They had to put themselves in the shoes of the potential end users of the SO WHAT tool: ESCOS, industries and municipalities, and determine which features would be essential, important and interesting to have.

Image 19: Workshop in Antwerp

SIE, as the partner responsible for the communication and dissemination of SO WHAT, contributed to the awareness strategy by designing the specific visual campaign, by uploading the event to eventbrite, by posting the information on social media and by uploading the news once the events were finalised.

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Image 20: Workshop Save the Date

1.3.3 Events attended

The SO WHAT consortium partners were encouraged to participate actively in the communication and dissemination actions and, as part of that, the attendance to events, conferences and shows is one of the main activities of the strategy.
Due to COVID19 mobility restrictions, physical meetings were not allowed since March 2020 (M10) and haven't resumed yet.

Several partners attended the District Heating Workshop in Antwerp, organized by one of the project partners, the Province of Antwerp, together with ISVAG, DBDH, EnergyVille, ODE Vlaanderen and Interafval (VVSG) on December 11th. Over 200 people attended this event, where our Technical Project Coordinator Nick Purshouse presented the SO WHAT Project.

Image 21: Nick Purshouse presenting SO WHAT at the District Heating Workshop in Antwerp

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The project coordinator RINA planned to attend the EU Sustainable Energy Week with a booth where they expected to present the SO WHAT project. Due to COVID-19 this conference was turned into an online format that didn't suit the original purposes of RINA's participation, which was withdrawn.

In addition, our SO WHAT consortium partner the University of Birmingham participated in the online Rankine Conference 2020 with the presentation of two papers that included some of the findings and work of the SO WHAT Project:

1. Organic Rankine cycles combined with thermochemical heat transformers to enhance the power output from waste heat.
2. Latent heat and thermochemical storage as enablers for waste heat-to-power and heat-upgrade: a general approach.

The first presentation took place on July 28, and it was carried out by Giovanni Manente, while the second one happened on July 30 and it was presented by Adriano Sciacovelli. Both talks mentioned the preliminary findings of the SO WHAT Project and the expected impacts of the work ahead.

The IIR International Conference Rankine 2020 – Applications of Cooling, Heating and Power Generation, was an interactive online event held over 5 days. Over 2,000 participants explored research and developments in the closely related fields of power cycles, working fluids and refrigeration, air conditioning and heat pump (RACHP) applications. They took away insights into new opportunities to deliver efficient, sustainable and environmentally friendly solutions.

Image 22: Adriano Sciacovelli presenting SO WHAT at the IIR International Conference Rankine 2020

The SO WHAT Project also presented paper, led by the University of Birmingham, at the Sustainable Places online conference, on October 29, in the context of the session "Energy Storage".

Image 23: Adriano Sciacovelli presenting at Sustainable Places

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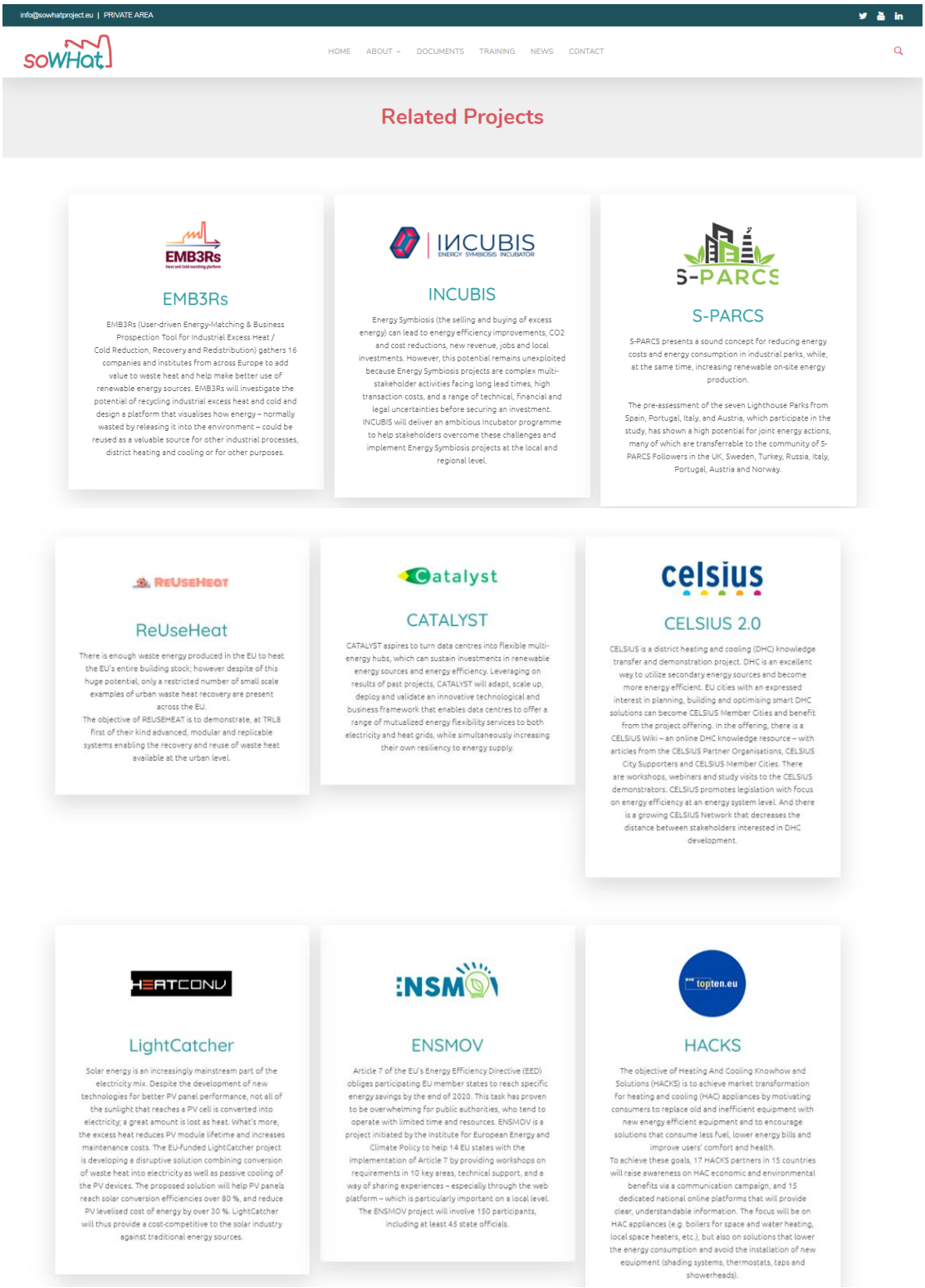
1.3.4 Interaction with other EU projects

There has been interaction established with four projects at this stage:EMB3Rs, INCUBIS, R-ACES and S-PARCS. First of all, SO WHAT carried out some literature review to identify related and similar projects and it created a section on the website referencing them.

Image 24: Related Projects section on the website



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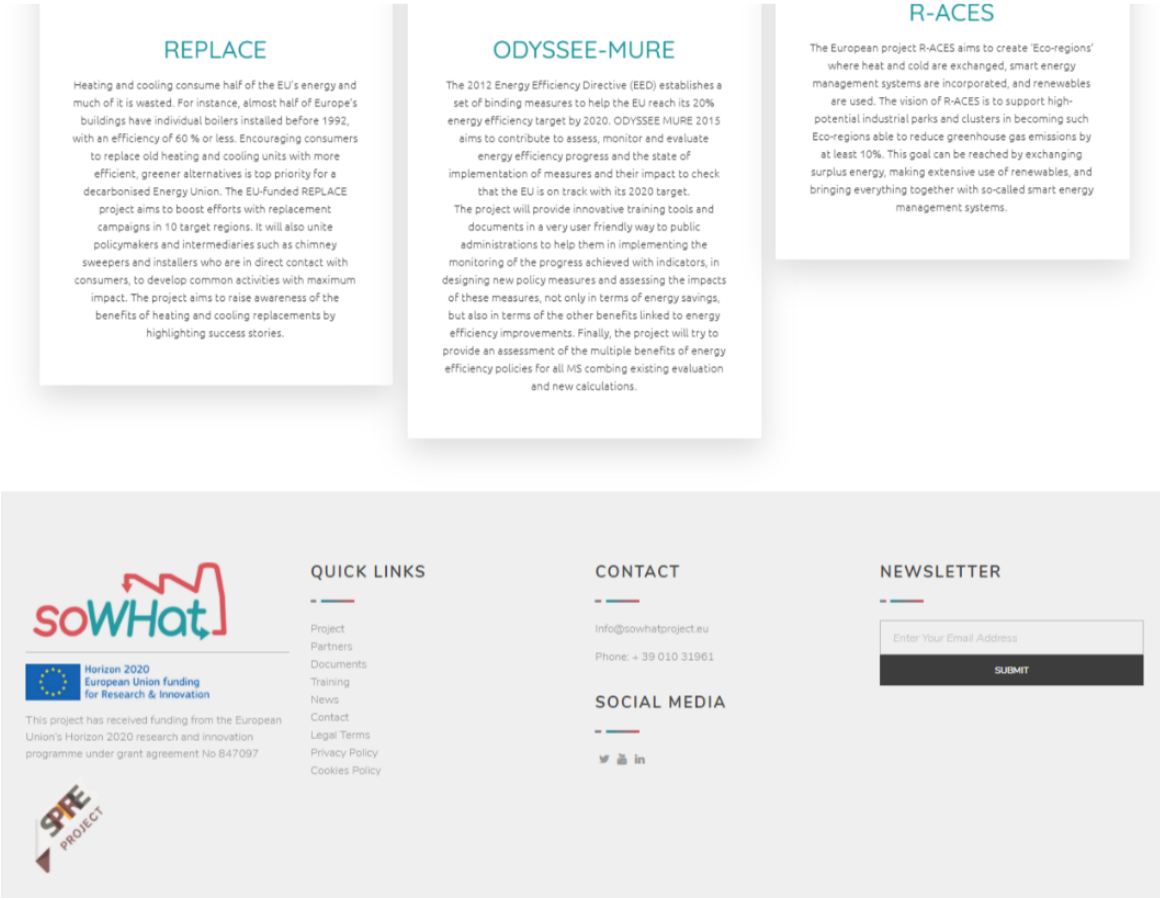

RINA-C and SIE, as Project Coordinator and Communications Manager respectively, have contacted some of these related projects.

A call was held with the INCUBIS project on September 22. Several levels of potential collaboration were foreseen and are currently being discussed:

- Technical collaboration on the tools to identify synergies and superpositions. The coordinators have touched base and are working on arranging a teleconference with the technical partners.
- Potentially using the SO WHAT tool in the INCUBIS case studies based on their availability.
- The organisation of a joint webinar.

Likewise, another call was held with the EMB3RS project, where different potential lines of collaboration were drawn:

- A discussion between developers on the specifications of each project's tool
- A workshop (potentially in the beginning of 2021) to present the characteristics of both tools and gather feedback.
- The organisation of a joint webinar.

With these two projects onboard and S-PARCS having confirmed via email, SO WHAT took the lead and organised a joint webinar on waste heat technologies took place on November 18. On November

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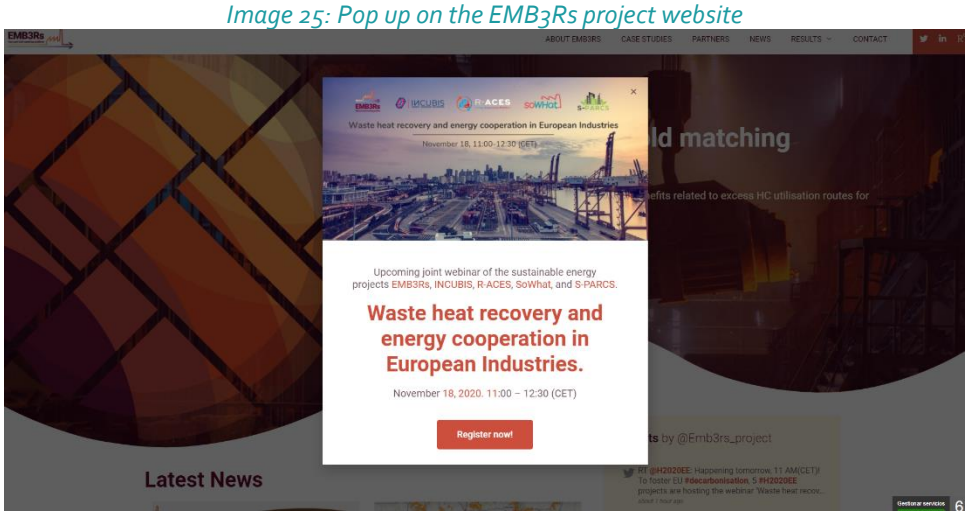
5th, SO WHAT held a teleconference with the R-ACES project to discuss potential synergies. They decided to join the webinar too.

All the projects' communication leaders coordinated to do a joint campaign to communicate and disseminate the webinar.

Image 25: Pop up on the EMB3Rs project website



The webinar, which set the precedent for further collaborations with these and other projects, counted with over 100 attendees and 10 speakers. The full agenda ca be seen in Annex II.

Image 26: Registration landing page for the webinar

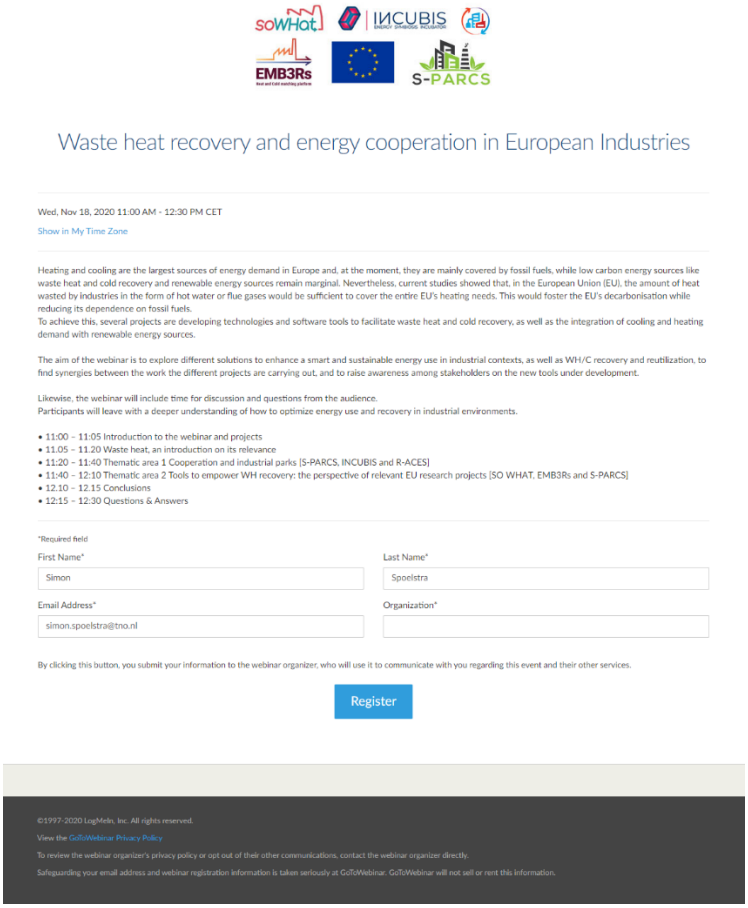


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Image 27: Screenshot of the webinar

1.3.5 Interactions with European associations

UoB presented the project to Innovate UK and gave some high-level info about its aims. Innovate UK is part of the UK Business Energy Department which is currently running a Heat Recovery funding support scheme. In addition, several European associations were identified in the stakeholders list that was elaborated at the beginning of the project included in Annex III. They will be contacted once the presentation of the SO WHAT tool is ready to introduce it to them.

1.3.6 Scientific journals

Two papers with information on the SO WHAT Project developments have been presented by the University of Birmingham in the online Rankine Conference 2020 that took place in late July:

- Organic Rankine cycles combined with thermochemical heat transformers to enhance the power output from waste heat.
- Latent heat and thermochemical storage as enablers for waste heat-to-power and heat-upgrade: a general approach.

The first presentation took place on July 28, and it was carried out by Giovanni Manente, while the second one happened on July 30 and it was presented by Adriano Sciacovelli. Both talks mentioned the preliminary findings of the SO WHAT Project and the expected impacts of the work ahead.

In addition, another paper was presented by the University of Birmingham too, at the online conference Sustainable Places celebrated on 29 October 2020.

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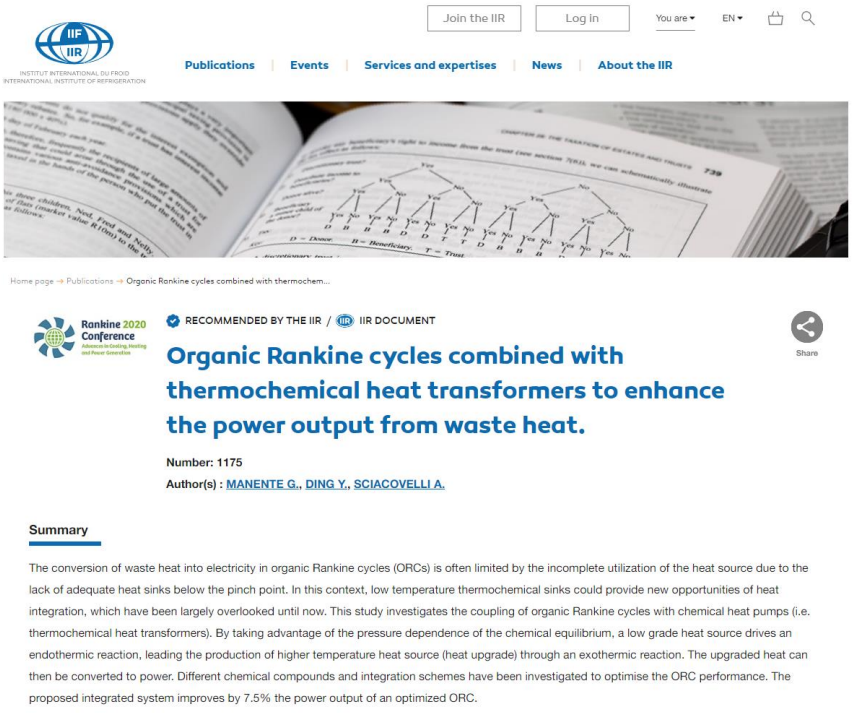
Image 28: One of the papers presented at the Rankine 2020 Conference



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Home page → Publications → Organic Rankine cycles combined with thermochem...

Rankine 2020 Conference

RECOMMENDED BY THE IIR / IIR DOCUMENT

Share

Organic Rankine cycles combined with thermochemical heat transformers to enhance the power output from waste heat.

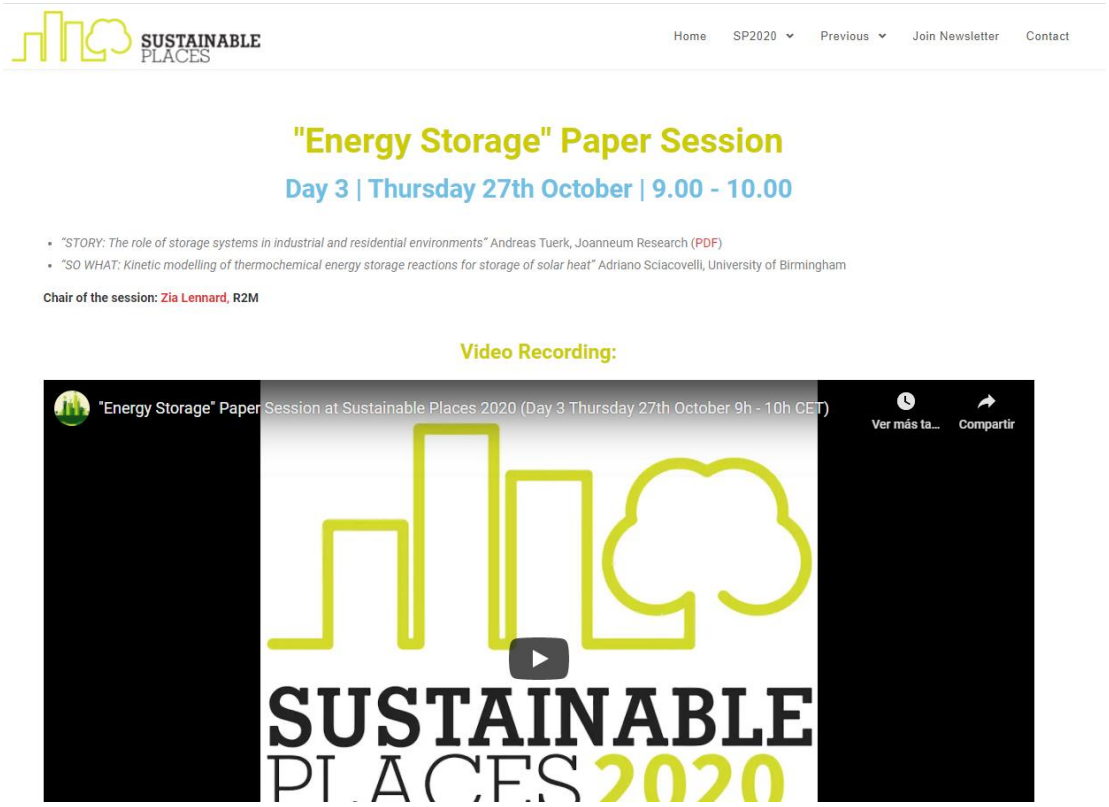
Number: 1175

Author(s) : MANENTE G., DING Y., SCIACOVELLI A.

Summary

The conversion of waste heat into electricity in organic Rankine cycles (ORCs) is often limited by the incomplete utilization of the heat source due to the lack of adequate heat sinks below the pinch point. In this context, low temperature thermochemical sinks could provide new opportunities of heat integration, which have been largely overlooked until now. This study investigates the coupling of organic Rankine cycles with chemical heat pumps (i.e. thermochemical heat transformers). By taking advantage of the pressure dependence of the chemical equilibrium, a low grade heat source drives an endothermic reaction, leading the production of higher temperature heat source (heat upgrade) through an exothermic reaction. The upgraded heat can then be converted to power. Different chemical compounds and integration schemes have been investigated to optimise the ORC performance. The proposed integrated system improves by 7.5% the power output of an optimized ORC.

Image 29: Presentation at Sustainable Places



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"Energy Storage" Paper Session

Day 3 | Thursday 27th October | 9.00 - 10.00

- *"STORY: The role of storage systems in industrial and residential environments"* Andreas Tuerk, Joanneum Research (PDF)
- *"SO WHAT: Kinetic modelling of thermochemical energy storage reactions for storage of solar heat"* Adriano Sciacovelli, University of Birmingham

Chair of the session: Zia Lennard, R2M

Video Recording:

"Energy Storage" Paper Session at Sustainable Places 2020 (Day 3 Thursday 27th October 9h - 10h CET)

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2 INDICATORS & TARGETS

The successful implementation of this component of the Dissemination and Communication Plan will be quantified by the achievement of specific targets for a number of different indicators (Table 2).

Table 2: KPI, means and objectives

Means / channel	KPI	Current (by M18)
Scientific/technical publications	3 = poor, 3-5 = good, >5 = excellent;	3 conference papers accepted
Oral/poster presentations at conferences, symposia, seminars, workshops, etc.	Number of conference presentations: <3 = poor, 3-7 = good, >7+ = excellent	3 conference presentations
Liaison/collaboration with relevant European communities	Collaboration agreements with relevant associations <3 = poor, 4-6 = good, >7 = excellent	
Liaison / collaboration with relevant projects	<4 = poor, 5-8 = good, >9 = excellent	Active collaboration with EMB3Rs, INCUBIS, R-ACES and S-PARCS
Project visual identity and public image	Reach at the project end: 1500 followers on Twitter; 300 on LinkedIn	103 followers on Twitter 397 followers on LinkedIn
Project website	1500 unique visitors per year; An average of 2.5 min stay Total visits: <5000 = poor; 5000-10,000 = good; >10,000 = excellent Material downloads: <50 = poor; 50-100 = good; >100 = excellent	1,705 new users 2:55 minutes 01 seconds. Total visits: 7,668 652 visits to the documents download site
Project promotional materials (brochure/ leaflet, flyers, poster and banners…	200 downloads per year from the website <500 copies = poor; 500-1,000 copies = good; >1,000 copies = excellent	652 visits to the documents download site 200 printed copies
Project videos	800 views in total	512views

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Project media presentations	3 large regional/national media presentations	4 media presentations (Sweden, Romania and Portugal, webinar) 29 publications
Periodic e-newsletter	>1,000 recipients in the e-newsletter distribution list by end of project.	323 subscribers 2,137 people on Twitter in average 1,059 on LinkedIn

3 DISSEMINATION

As stated on the Grant Agreement Article 29 "Unless it goes against their legitimate interests, each beneficiary must — as soon as possible — 'disseminate' its results by disclosing them to the public by appropriate means (other than those resulting from protecting or exploiting the results), including in scientific publications (in any medium)."

In compliance with this article, our partners have actively contributed in disseminating the SO WHAT project from the very beginning by different means: social media posts, attendance to conferences, emailing campaigns, newsletters, press releases, etc.

SO WHAT LinkedIn posts have been shared 145 times and our partners were very supportive in this area. Likewise, our partners have made 45 tweets mentioning SO WHAT, and contributed to retweeting 207 times to the content shared in the official social media channels.

As further explained in section 1.3.3, the project partners have disseminated SO WHAT at three different events so far: District Heating Workshop in Antwerp, Rankine Conference 2020, and Sustainable Places. Moreover, a webinar with related projects was held on November 18.

One press release was launched through the official project channels and some partners also shared news about the project with the media.

All this information can be found in more detail in the dissemination tables included in Annex III.

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4 COVID-19 IMPACT AND MITIGATION STRATEGY

COVID-19 has had a clear impact on the communication and dissemination activities of the project. Several physical events and conferences were cancelled, the work at some industrial sites slowed down or even stopped, and many laboratories closed during the worst period of the pandemic. This has significantly reduced the reach of the project at this first development stage. Moreover, it left the SO WHAT Communication Manager with very little news to communicate. Nevertheless, work continued in the best possible way and communication didn't stop at any point. We leveraged atemporal content and news items, such as the series we are posting about the project demo sites. Moreover, this can be seen as an opportunity to further engage stakeholders virtually. Whilst attending to a physical workshop or event is expensive and time-consuming, transforming some of these events into a digital format provides the opportunity for more attendees to join, and thus to reach a wider amount of public.

The entire SO WHAT consortium is committed to join online conferences whenever possible, and to explore new possibilities and formats for digital events and to boost engagement and interaction, such as Mural, Miró, Mentimeter, and other software tools.

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5 CONCLUSIONS AND ACTION PLAN M18 – M36

After a careful review of the actions implemented during the first period in the SO WHAT communication and dissemination strategy and the examination of the compliance with the KPIs established at the beginning of the project, in general terms the strategy is proving to be effective. No major deviations have been found, so the main action guidelines will remain the same and we continue to liaise with the coordination on the adopted approach and risk management.

There are some indicators that shed light on where the communication efforts could be enhanced, such as in establishing collaboration agreements with relevant associations. Moreover, further synergies with related projects may be prompted.

The KPI on Twitter followers could only be achieved if a paid campaign was launched. This will be discussed with the partners. Nevertheless, the KPI of followers in LinkedIn were already overcome, showing the great interest of this social media users in this project. The website is performing very well and attracting not only a high number of visitors, but also very qualified ones, as the high stay rate shows.

Although google analytics is not providing the number of document downloads, 652 people visited that section of the website, proving that the content shared there (reports, deliverables, newsletters and communication materials) is of great interest for the web visitors.

SIE, as leaders of the communication and dissemination activities, has registered in Build Up, the energy efficiency portal, where it submitted the news about the webinar and will continue uploading relevant news and events.

At least two new press releases are foreseen in the next period. SIE, in collaboration with the SO WHAT partners will identify the most interesting milestones suitable to be communicated to media.

The activity in social media will continue. Participation of the partners to maintain the good performance in these platforms is a vital part of our approach to Dissemination and Communications. SIE is also committed to reinforce the SO WHAT Newsletter campaigns, to attract as many stakeholders as possible to join the mailing list.

In addition, a key activity will be to continue reinforcing the relationships with other EU projects and initiatives working on a similar theme to SO WHAT in order to leverage each project's' contacts and organise coordinated activities which will boost the KPIs relating to audience size for all the projects. Moreover, in this second phase of the project we will approach more actively industrial sites to introduce the tool and better understand the key exploitable results and outcomes of the project.

Due to the COVID-19 crisis, all consortium partners are working on impact mitigation strategies regarding the project activities and outcomes. As already mentioned above, in terms of communication and dissemination, this situation is likely to result in a reduction in the number of conferences and events attended. In this case, the consortium partners are committed to continue the contact with stakeholders by email, telephone or online meetings and social media posts and we may hold webinars in the interim to help us to progress our work and engagement with targeted community. Moreover, whenever possible and appropriate, consortium partners will join online conferences and disseminate the SO WHAT Project there.

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6 ANNEX I: ONLINE PUBLICATIONS AND MEDIA IMPACT

Cordis News

https://cordis.europa.eu/article/id/423123-emb3rs-incubis-r-aces-so-what-and-s-parcs-to-host-webinar-on-industrial-waste-heat-recovery

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EMB3RS, INCUBIS, R-ACES, SO WHAT AND S-PARCS TO HOST WEBINAR ON INDUSTRIAL WASTE HEAT RECOVERY

The smart and sustainable energy projects EMB3RS, INCUBIS, R-ACES, SO WHAT and S-PARCS are organizing a joint webinar: Waste heat recovery and energy cooperation in European Industries, to be held on November 18, 2020. These five sister initiatives, funded under the EU Horizon 2020 research and innovation programme, will present their work on industrial WH/C recovery, the tools they are developing to empower it, and potential synergies between industrial parks and the surrounding community.

ENERGY NEW PRODUCTS AND TECHNOLOGIES

© Source: So What Project

The aim of the webinar Waste heat recovery and energy cooperation in European Industries is to explore different solutions to enhance a smart and sustainable energy use in industrial and regional contexts, as well as WH/C recovery and reutilization, to find synergies between the work the different projects are carrying out, and to raise awareness among stakeholders on the new tools under development. Likewise, the webinar will include time for discussion and questions. Participants will leave with a deeper understanding of how to optimize energy use and recovery in industrial environments.

Heating and cooling are the largest sources of energy demand in Europe and currently they are mainly covered by fossil fuels, while low carbon energy sources like waste heat and cold recovery and renewable energy sources remain marginal. Nevertheless, current studies showed that, in the EU, the amount of heat wasted by industries in the form of hot water or flue gases would be sufficient to cover the entire EU's heating needs. This would foster the EU's decarbonisation while reducing its dependence on fossil fuels.

To achieve this, these projects are developing technologies and software tools to facilitate waste heat and cold recovery, as well as the integration of cooling and heating demand with renewable energy sources.

EMB3Rs is investigating the potential of recycling industrial excess heat and cold and designing a platform that explores how energy – normally wasted by releasing it into the environment – could be reused as a valuable source for other industrial processes, district heating and cooling or further purposes.

INCUBIS will develop a set of tools and support services to help key stakeholders in Industrial Parks and Districts in the development and implementation of Energy Symbiosis (ES) projects. ES involves the use of the excess heat/cold produced by one or more industries, to provide heating, cooling or electricity for other industries or buildings. The concept can also be extended to the production of sustainable energy by using waste materials (e.g. biomass) as fuel. ES projects are complex multi-stakeholder activities facing long lead times, high transaction costs, a range of technical, financial, and legal uncertainties before securing an investment. Nonetheless, they can lead to energy efficiency improvements, CO2 & cost reductions, new revenue, jobs, and local investments.

R-ACES is supporting industrial clusters & business parks in becoming ecoregions that reduce their CO2 emissions by at least 10%. To achieve this, ecoregions are created where multiple stakeholders engage in energy cooperation by exchanging heat/cold streams, investing together in renewable energy solutions, or managing energy streams through smart energy management platforms.

SO WHAT is developing an integrated software to identify and simulate how industrial WH/C could cost-effectively balance with the local community's forecasted energy demand, and how this could be integrated with renewable energy systems. The tool, designed to support different stakeholders in auditing and mapping their energy processes, will assess the impact of energy processes on both a technical and non-technical level and help to reduce the cost of energy audits. This will be validated by 11 demonstration sites that will test the software in real operating conditions in industrial facilities.

S-PARCS presents a sound concept for reducing energy costs and energy consumption in industrial parks, while, at the same time, increasing renewable on-site energy production. It aims at moving from a single-company energy efficient intervention approach to cooperative energy efficient solutions, enabling higher energy savings and the subsequent increase of competitiveness of the companies located in the parks. S-PARCS will systematically analyse technical, economic, regulatory, legal, organisational, environmental & social barriers to energy-efficient park design & operation.

Keywords

energy cooperation, energy transition, waste heat, industrial symbiosis, ecoregion

Contributor

Contributed by:
European Science Communication Institute
Germany

Contact:
Kristine Jung (Dr)
Email
See more articles from this contributor

Related projects

HORIZON 2020
PROJECT
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Envisioning and Testing New Models of Sustainable Energy Cooperation and Services in Industrial Parks
18 July 2020

HORIZON 2020
PROJECT
SO WHAT
Supporting new Opportunities for Waste Heat And cold valorisation Towards EU decarbonization
11 May 2020

HORIZON 2020
PROJECT
INCUBIS
An Industrial Symbiosis Incubator for Maximizing Waste Heat/Cold Efficiency in Industrial Parks and Districts
20 April 2020

HORIZON 2020
PROJECT

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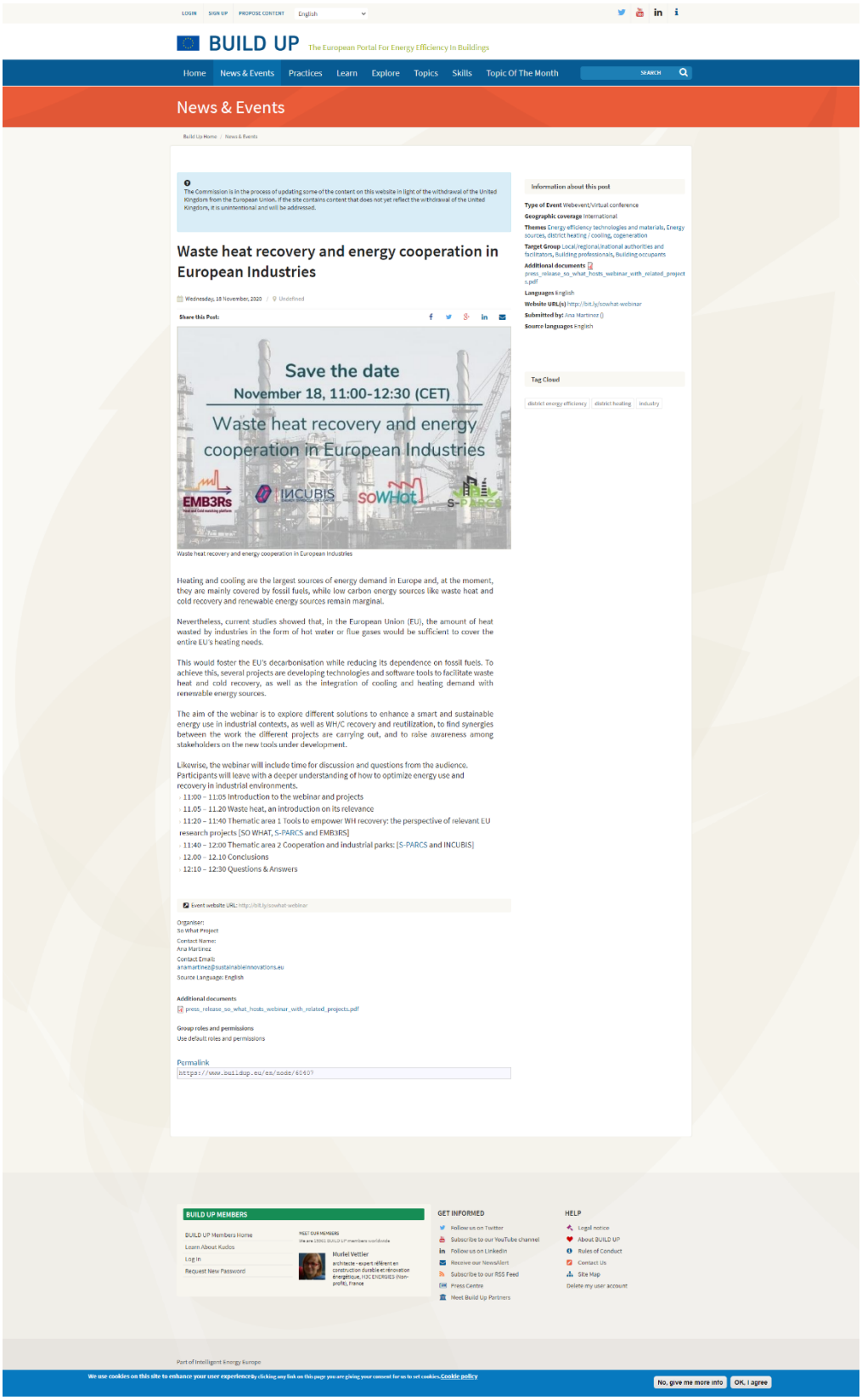
BUILD UP

https://www.buildup.eu/en/events/waste-heat-recovery-and-energy-cooperation-european-industries



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EMB3RS, INCUBIS, R-ACES, SO WHAT AND S-PARCS To Host Webinar On Industrial Waste Heat Recovery

18/11/2020 - 18/11/2020 European Science Communication Institute

Porto, Portugal, November 3, 2020. The smart and sustainable energy projects EMB3RS, INCUBIS, R-ACES, SO WHAT and S-PARCS, are organizing a joint webinar: Waste heat recovery and energy cooperation in European Industries, to be held on November 18, 2020. These five sister initiatives, funded under the European Union's Horizon 2020 research and innovation programme, will present their work on industrial WH/C recovery, the tools they are developing to empower it, and potential synergies between industrial parks and the surrounding community.

The aim of the webinar 'Waste heat recovery and energy cooperation in European Industries' is to explore different solutions to enhance a smart and sustainable energy use in industrial and regional contexts, as well as WH/C recovery and reutilization, to find synergies between the work the different projects are carrying out, and to raise awareness among stakeholders on the new tools under development. Likewise, the webinar will include time for discussion and questions from the audience. Participants will leave with a deeper understanding of how to optimize energy use and recovery in industrial environments.

Heating and cooling are the largest sources of energy demand in Europe and, at the moment, they are mainly covered by fossil fuels, while low carbon energy sources like waste heat and cold recovery and renewable energy sources remain marginal. Nevertheless, current studies showed that, in the European Union (EU), the amount of heat wasted by industries in the form of hot water or flue gases would be sufficient to cover the entire EU's heating needs. This would foster the EU's decarbonisation while reducing its dependence on fossil fuels.

To achieve this, these projects are developing technologies and software tools to facilitate waste heat and cold recovery, as well as the integration of cooling and heating demand with renewable energy sources.

EMB3Rs (User-driven Energy-Matching & Business Prospection Tool for Industrial Excess Heat / Cold Reduction, Recovery and Redistribution) is investigating the potential of recycling industrial excess heat and cold and designing a platform that explores how energy - normally wasted by releasing it into the environment - could be reused as a valuable source for other industrial processes, district heating and cooling or further purposes.

INCUBIS (An Energy Symbiosis Incubator for Maximizing Energy Efficiency in Industrial Parks and Districts) will develop a set of tools and support services to help key stakeholders in Industrial Parks and Districts in the development and implementation of Energy Symbiosis projects. Energy Symbiosis involves the use of the excess heat/cold produced by one or more industries, to provide heating, cooling or electricity for other industries or buildings. The concept can also be extended to the production of sustainable energy by using waste materials (e.g. biomass) as fuel. Energy Symbiosis projects are complex multi-stakeholder activities facing long lead times, high transaction costs, and a range of technical, financial, and legal uncertainties before securing an investment. Nonetheless, they can lead to energy efficiency improvements, CO_2 and cost reductions, new revenue, jobs, and local investments.

R-ACES (acronym for fRamework for Actual Cooperation on Energy on Sites and Parks) is supporting industrial clusters and business parks in becoming ecoregions that reduce their CO_2 emissions by at least 10%. To achieve this, ecoregions are created where multiple stakeholders engage in energy cooperation by exchanging heat/cold streams, investing together in renewable energy solutions, or managing energy streams through smart energy management platforms. R-ACES is further drawing on and combining the knowledge and experience gathered throughout H2020 into a set of three specific tools embedded in selected support actions: an assessment tool, legal decision support for joint contracts, and the smart energy management platform for clusters.

SO WHAT (acronym for Supporting new Opportunities for Waste Heat And cold valorisation Towards EU Decarbonization) is developing an integrated software to identify and simulate how industrial WH/C could cost-effectively balance with the local community's forecasted energy demand, and how this could be integrated with renewable energy systems. The tool, designed to support different stakeholders in auditing and mapping their energy processes, will assess the impact of energy processes on both a technical and non-technical level and help to reduce the cost of energy audits. This will be validated by 11 demonstration sites that will test the software in real operating conditions in industrial facilities.

S-PARCS presents a sound concept for reducing energy costs and energy consumption in industrial parks, while, at the same time, increasing renewable on-site energy production. It aims at moving from a single-company energy efficient intervention approach to cooperative energy efficient solutions, enabling higher energy savings and the subsequent increase of competitiveness of the companies located in the parks. S-PARCS will systematically analyse technical, economic, regulatory, legal, organisational, environmental and social barriers to energy- efficient park design and operation on all levels and will provide innovative, market-ready solutions to overcome them.

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FNSNF Swiss National Science Foundation

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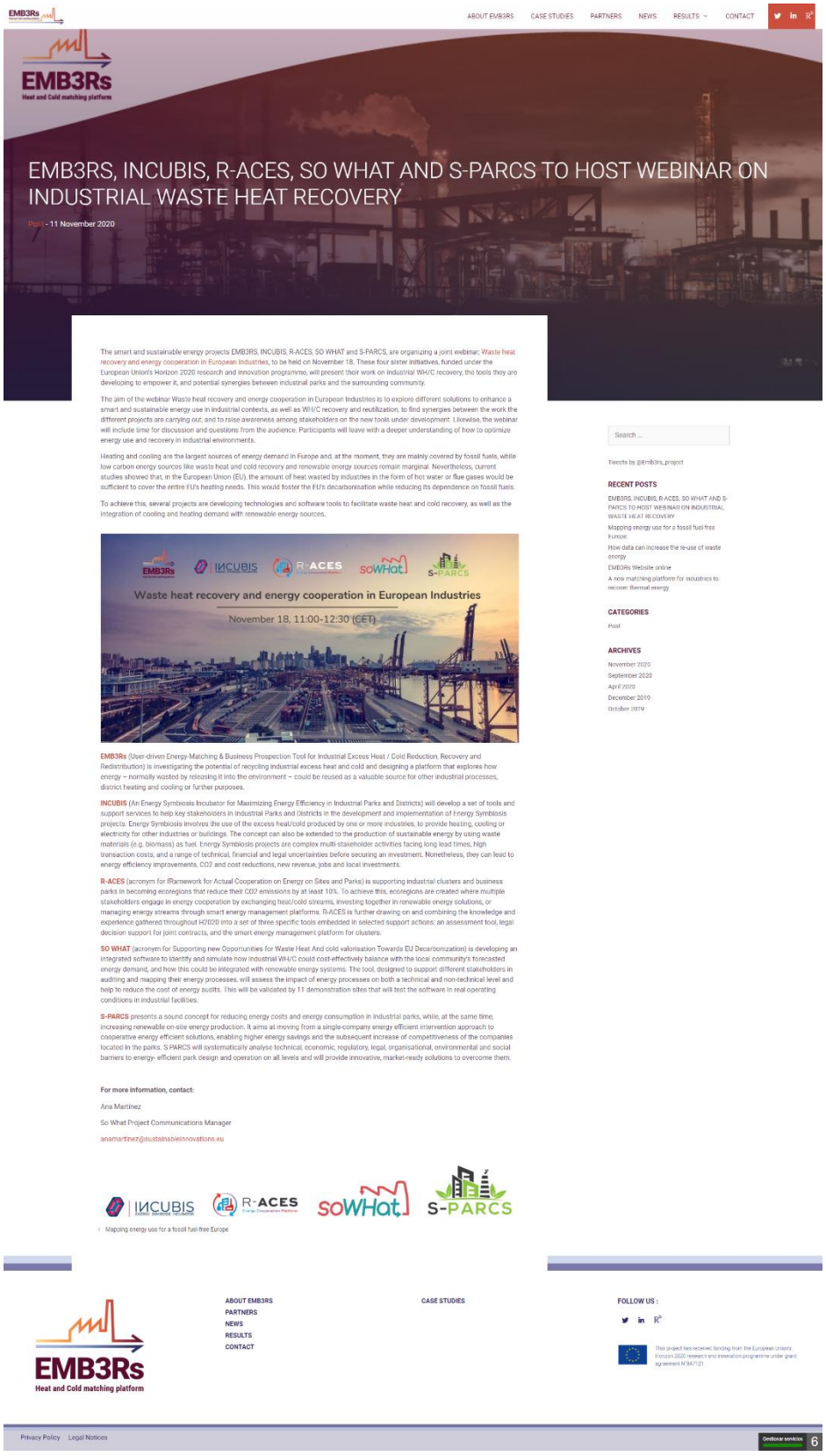
EMB3Rs website

https://www.emb3rs.eu/emb3rs-incubis-r-aces-so-what-and-s-parcs-to-host-webinar-on-industrial-waste-heat-recovery/



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R-ACES website

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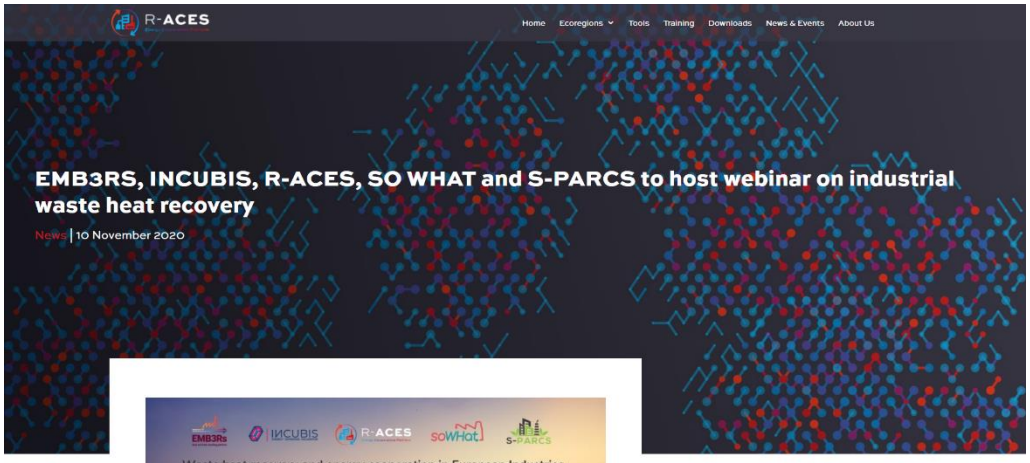

The smart and sustainable energy projects EMB3RS, INCUBIS, R-ACES, SO WHAT and S-PARCS, are organizing a joint webinar: Waste heat recovery and energy cooperation in European Industries, to be held on November 18, 2020. These five sister initiatives, funded under the European Union's Horizon 2020 research and innovation programme, will present their work on industrial WH/C recovery, the tools they are developing to empower it, and potential synergies between industrial parks and the surrounding community.

The aim of the webinar Waste heat recovery and energy cooperation in European Industries is to explore different solutions to enhance a smart and sustainable energy use in industrial and regional contexts, as well as WH/C recovery and reutilization, to find synergies between the work the different projects are carrying out, and to raise awareness among stakeholders on the new tools under development. Likewise, the webinar will include time for discussion and questions from the audience. Participants will leave with a deeper understanding of how to optimize energy use and recovery in industrial environments.

Heating and cooling are the largest sources of energy demand in Europe and, at the moment, they are mainly covered by fossil fuels, while low carbon energy sources like waste heat and cold recovery and renewable energy sources remain marginal. Nevertheless, current studies showed that, in the European Union (EU), the amount of heat wasted by industries in the form of hot water or flue gases would be sufficient to cover the entire EU's heating needs. This would foster the EU's decarbonisation while reducing its dependence on fossil fuels.

To achieve this, these projects are developing technologies and software tools to facilitate waste heat and cold recovery, as well as the integration of cooling and heating demand with renewable energy sources.

Projects

EMB3Rs (User-driven Energy-Matching & Business Prospection Tool for Industrial Excess Heat / Cold Reduction, Recovery and Redistribution) is investigating the potential of recycling industrial excess heat and cold and designing a platform that explores how energy – normally wasted by releasing it into the environment – could be reused as a valuable source for other industrial processes, district heating and cooling or further purposes.

INCUBIS (An Energy Symbiosis Incubator for Maximizing Energy Efficiency in Industrial Parks and Districts) will develop a set of tools and support services to help key stakeholders in Industrial Parks and Districts in the development and implementation of Energy Symbiosis projects. Energy Symbiosis involves the use of the excess heat/cold produced by one or more industries, to provide heating, cooling or electricity for other industries or buildings. The concept can also be extended to the production of sustainable energy by using waste materials (e.g. biomass) as fuel. Energy Symbiosis projects are complex multi-stakeholder activities facing long lead times, high transaction costs, and a range of technical, financial, and legal uncertainties before securing an investment. Nonetheless, they can lead to energy efficiency improvements, CO_2 and cost reductions, new revenue, jobs, and local investments.

R-ACES (acronym for fRamework for Actual Cooperation on Energy on Sites and Parks) is supporting industrial clusters and business parks in becoming ecoregions that reduce their CO_2 emissions by at least 10%. To achieve this, ecoregions are created where multiple stakeholders engage in energy cooperation by exchanging heat/cold streams, investing together in renewable energy solutions, or managing energy streams through smart energy management platforms. R-ACES is further drawing on and combining the knowledge and experience gathered throughout H2020 into a set of three specific tools embedded in selected support actions: an assessment tool, legal decision support for joint contracts, and the smart energy management platform for clusters.

SO WHAT (acronym for Supporting new Opportunities for Waste Heat And cold valorisation Towards EU Decarbonization) is developing an integrated software to identify and simulate how industrial WH/C could cost-effectively balance with the local community's forecasted energy demand, and how this could be integrated with renewable energy systems. The tool, designed to support different stakeholders in auditing and mapping their energy processes, will assess the impact of energy processes on both a technical and non-technical level and help to reduce the cost of energy audits. This will be validated by 11 demonstration sites that will test the software in real operating conditions in industrial facilities.

S-PARCS presents a sound concept for reducing energy costs and energy consumption in industrial parks, while, at the same time, increasing renewable on-site energy production. It aims at moving from a single-company energy efficient intervention approach to cooperative energy efficient solutions, enabling higher energy savings and the subsequent increase of competitiveness of the companies located in the parks. S-PARCS will systematically analyse technical, economic, regulatory, legal, organisational, environmental and social barriers to energy- efficient park design and operation on all levels and will provide innovative, market-ready solutions to overcome them.

Agenda & Registration

The agenda to the webinar and free registration is available here:

https://bit.ly/2GLJWkR

Events

NOVEMBER, 2020

10 NOV — ISPT CONFERENCE 2020 — 30 YARS TO GO

17 NOV — COOL DH WEBINAR — FROM THE TRADITION TO THE FUTURE: THE ØSTERBY CASE

18 NOV — WASTE HEAT RECOVERY AND ENERGY COOPERATION IN EUROPEAN INDUSTRIES — SO WHAT HOSTS WEBINAR WITH RELATED PROJECTS

25 - 26 NOV — THE FUTURE OF THERMAL GRIDS 2020 — WELCOME TO AN INTERNATIONAL CONFERENCE ON DISTRICT HEATING & COOLING

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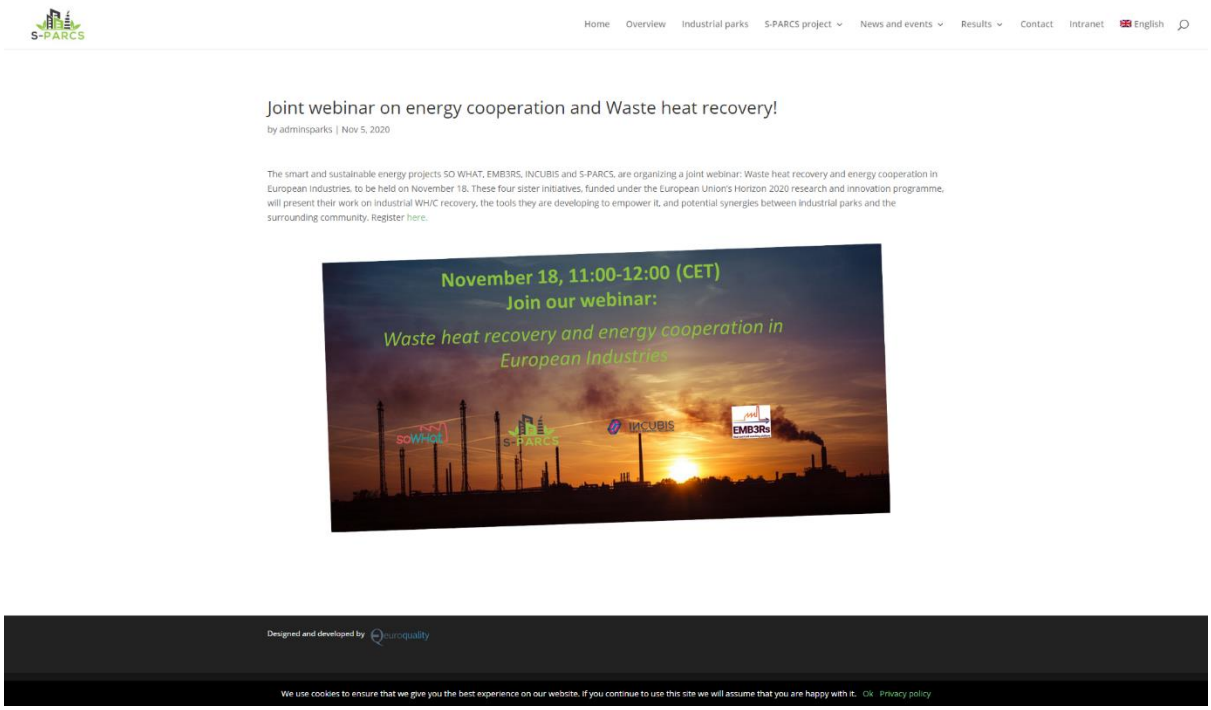
S-PARCS website

https://www.sparcs-h2020.eu/joint-webinar-on-energy-cooperation-and-waste-heat-recovery/



Institute for Sustainable Process Technology website

https://ispt.eu/events/waste-heat-recovery-and-energy-cooperation-in-european-industries/

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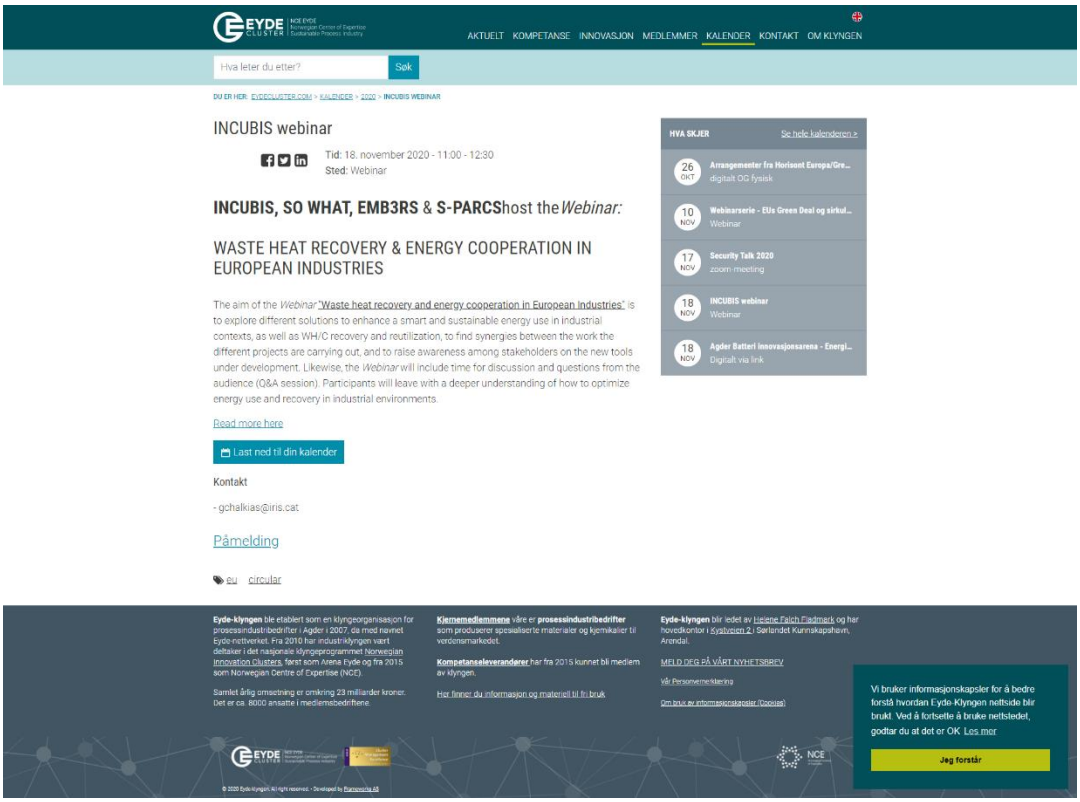
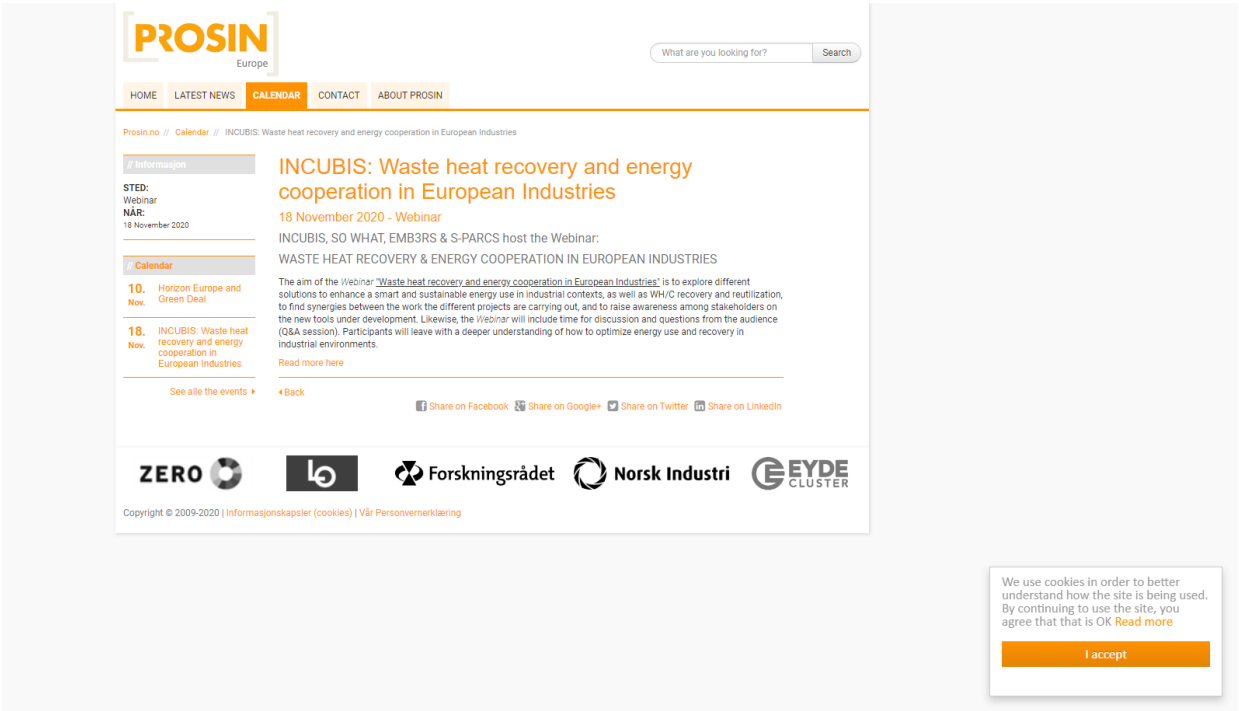
Eyde cluster

https://www.eydecluster.com/no/kalender/2020/incubis-webinar/



Prosin

https://www.prosin.no/calendar/incubis-waste-heat-recovery-and-energy-cooperation-in-european-industries/



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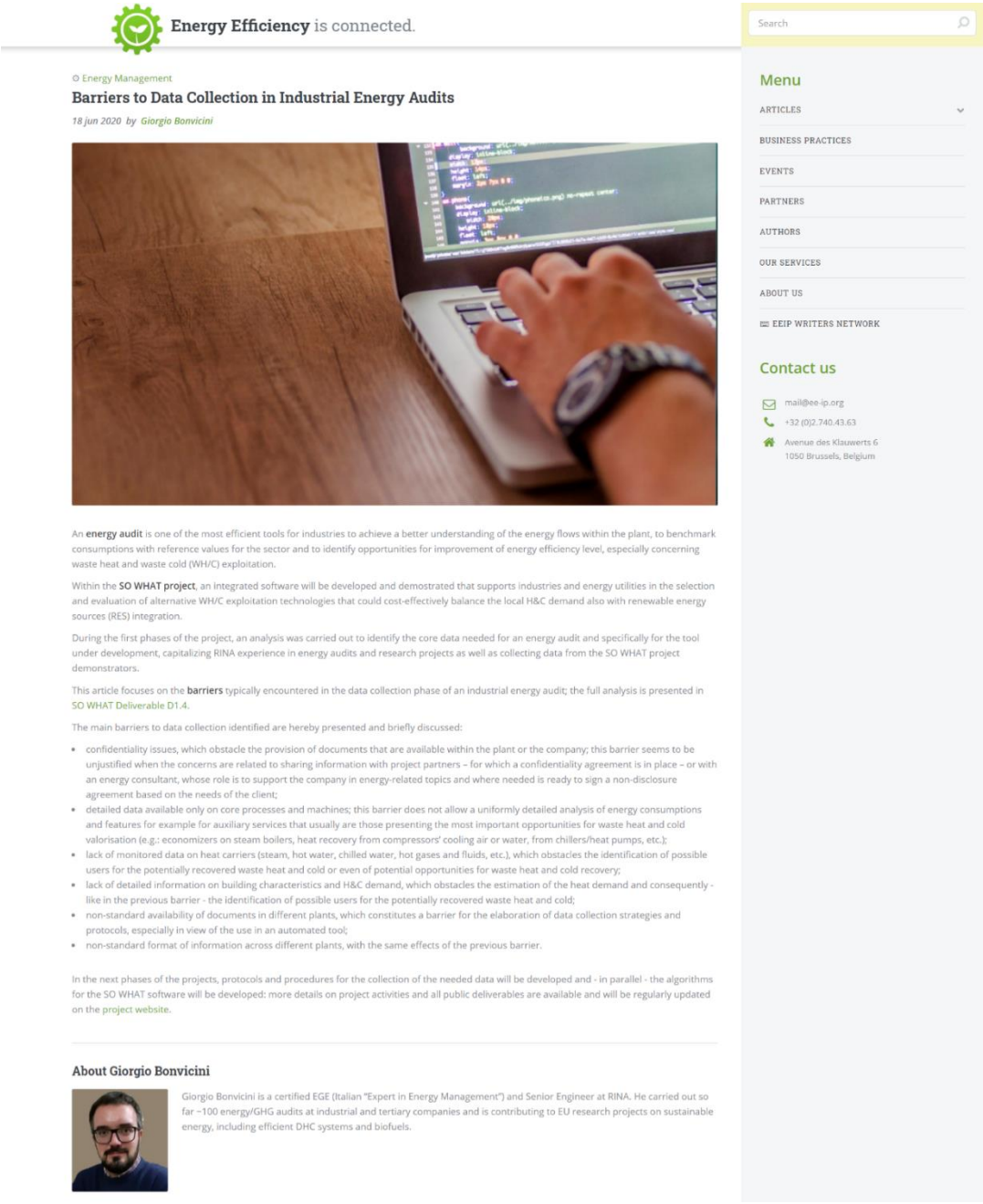

Energy Efficiency is connected.

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Energy Management

Barriers to Data Collection in Industrial Energy Audits

18 jun 2020 by Giorgio Bonvicini

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An **energy audit** is one of the most efficient tools for industries to achieve a better understanding of the energy flows within the plant, to benchmark consumptions with reference values for the sector and to identify opportunities for improvement of energy efficiency level, especially concerning waste heat and waste cold (WH/C) exploitation.

Within the **SO WHAT project**, an integrated software will be developed and demostrated that supports industries and energy utilities in the selection and evaluation of alternative WH/C exploitation technologies that could cost-effectively balance the local H&C demand also with renewable energy sources (RES) integration.

During the first phases of the project, an analysis was carried out to identify the core data needed for an energy audit and specifically for the tool under development, capitalizing RINA experience in energy audits and research projects as well as collecting data from the SO WHAT project demonstrators.

This article focuses on the **barriers** typically encountered in the data collection phase of an industrial energy audit; the full analysis is presented in SO WHAT Deliverable D1.4.

The main barriers to data collection identified are hereby presented and briefly discussed:

- confidentiality issues, which obstacle the provision of documents that are available within the plant or the company; this barrier seems to be unjustified when the concerns are related to sharing information with project partners – for which a confidentiality agreement is in place – or with an energy consultant, whose role is to support the company in energy-related topics and where needed is ready to sign a non-disclosure agreement based on the needs of the client;
- detailed data available only on core processes and machines; this barrier does not allow a uniformly detailed analysis of energy consumptions and features for example for auxiliary services that usually are those presenting the most important opportunities for waste heat and cold valorisation (e.g.: economizers on steam boilers, heat recovery from compressors' cooling air or water, from chillers/heat pumps, etc.);
- lack of monitored data on heat carriers (steam, hot water, chilled water, hot gases and fluids, etc.), which obstacles the identification of possible users for the potentially recovered waste heat and cold or even of potential opportunities for waste heat and cold recovery;
- lack of detailed information on building characteristics and H&C demand, which obstacles the estimation of the heat demand and consequently - like in the previous barrier - the identification of possible users for the potentially recovered waste heat and cold;
- non-standard availability of documents in different plants, which constitutes a barrier for the elaboration of data collection strategies and protocols, especially in view of the use in an automated tool;
- non-standard format of information across different plants, with the same effects of the previous barrier.

In the next phases of the projects, protocols and procedures for the collection of the needed data will be developed and - in parallel - the algorithms for the SO WHAT software will be developed: more details on project activities and all public deliverables are available and will be regularly updated on the project website.

About Giorgio Bonvicini

Giorgio Bonvicini is a certified EGE (Italian "Expert in Energy Management") and Senior Engineer at RINA. He carried out so far ~100 energy/GHG audits at industrial and tertiary companies and is contributing to EU research projects on sustainable energy, including efficient DHC systems and biofuels.

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Sustainable Innovations website:

https://www.sustainableinnovations.eu/es/so-what-project-innovation-in-recovering-waste-heat-and-cold/

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RINA's website

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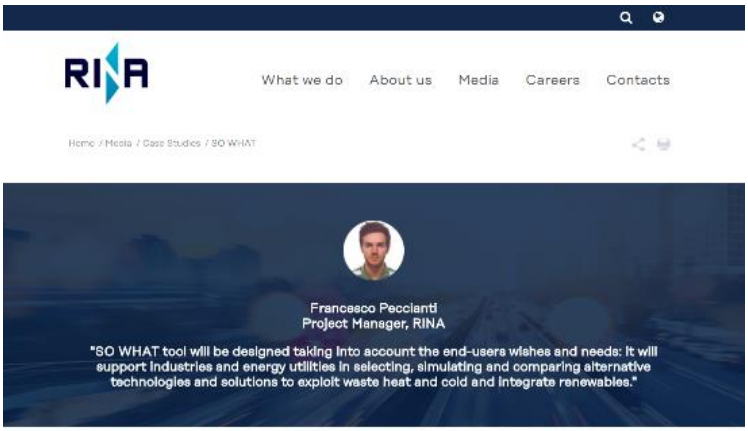
https://www.rina.org/en/media/casestudies/so-what



SO WHAT

An integrated tool to support industries, energy utilities and municipalities for the exploitation of Waste Heat and Waste Cold

BUSINESS	PERIOD	PROJECT COORDINATOR	FUNDING SCHEME
R&D	Start date: 1 June 2019 End date: 31 May 2022	Francesco Pecciarti - RINA Consulting S.p.A.	H2020 - IA - Innovation action

Challenge

The amount of heat wasted by industries in the form of hot water or flue gases is sufficient to cover 100% of EU's heating needs, but the potential of waste heat and cold (WH/C) is still unlocked due to a number of technical/non-technical barriers:

- Perception of technological reliability of the solutions needs to be improved
- Procedures, contracts, authorization
- Requirements need to be studied updated to facilitate the investments
- Conventional business and risk models have to be revisited and dedicated framework tailored to these investments still needs to be developed
- Innovative and economically viable transportable Thermal Energy Storage solutions has to be studied

SO WHAT has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 847097 to promote WH/C recovery and Renewable Energy Sources integration at industrial scale tackling all these challenges.

Therefore, SO WHAT main objective is to develop and demonstrate an integrated and easy-to-use tool which will support industries and energy utilities in selecting, simulating and comparing alternative Waste Heat and Waste Cold exploitation technologies that could cost-effectively balance the local forecasted Heating & cooling demand also via RES integration.

Approach

RINA is the Project Coordinator of SO WHAT.

RINA is in charge of mapping the heating and cooling demand and Renewable Energy Sources potential and their integration in the industrial environment. Moreover, we are in charge of SO WHAT tool validation in real industrial demo-cases in order to:

- Define the instrumentation equipment (network of sensors, actuators, etc.) required for the diagnosis and validation monitoring;
- Validate and fine-tune of SO WHAT tool based on real data from the monitoring platform deployed in the demo cases;
- Demonstrate the techno-economic feasibility of industrial heat/cold recovery
- Ensure maximized scalability and replicability of results outlining innovative pathways

Medgreen's website

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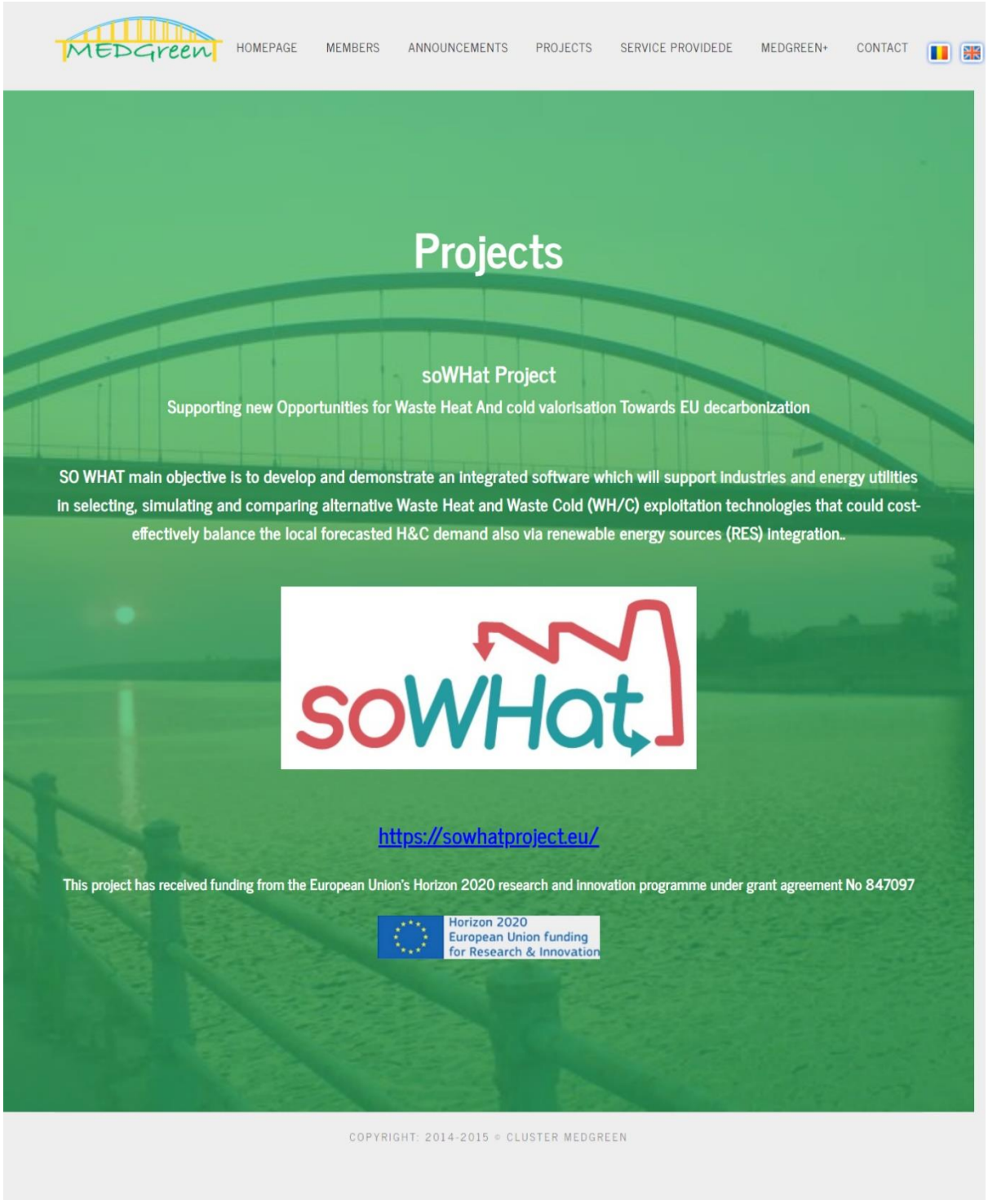
http://www.medgreen.eu/en/proiecte.php



IES Ldt. website

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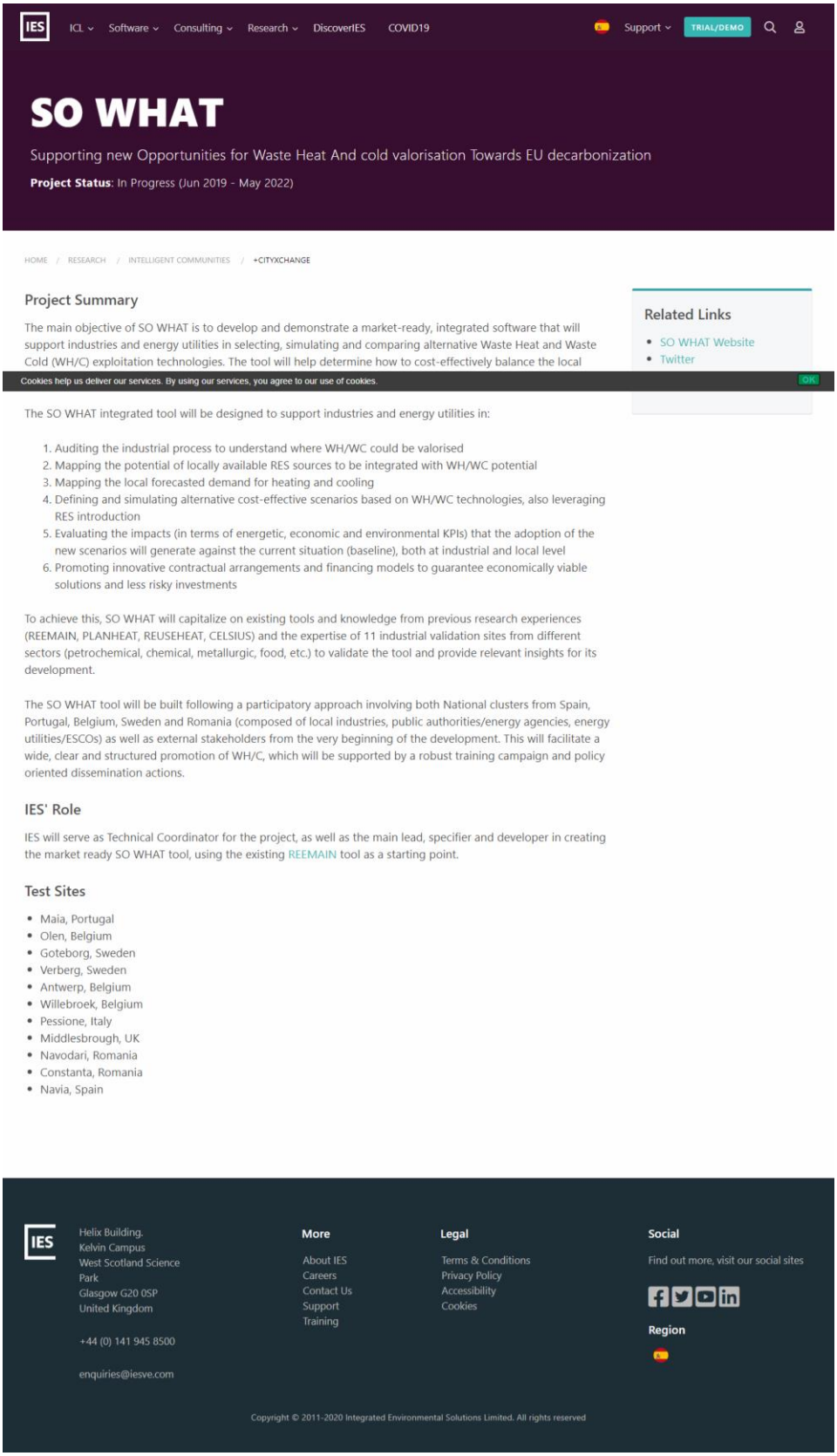
https://www.iesve.com/research/intelligent-communities/so-what



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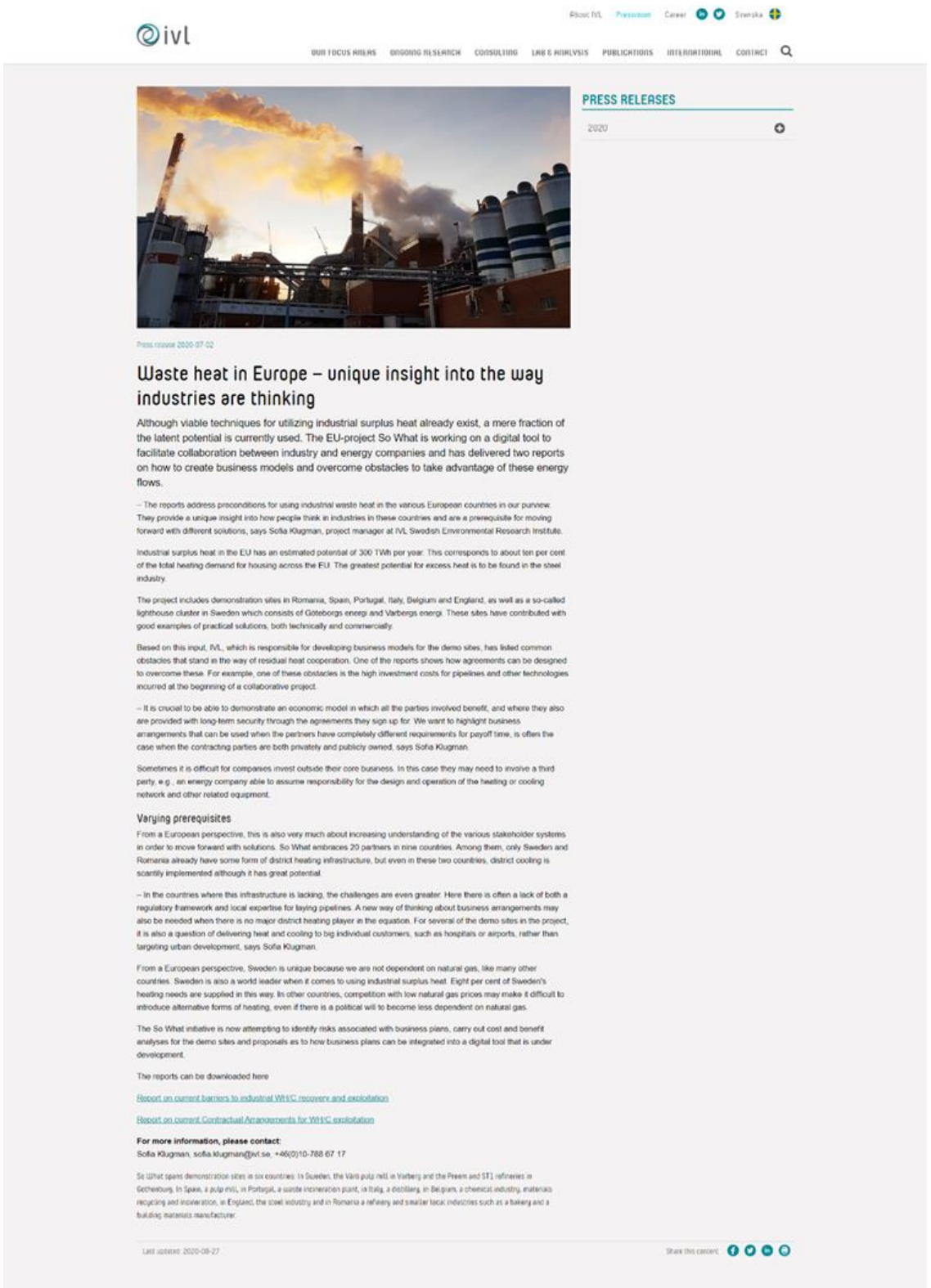
IVL website

https://www.ivl.se/english/startpage/top-menu/pressroom/press-releases/press-releases---arkiv/2020-07-02-waste-heat-in-europe---unique-insight-into-the-way-industries-are-thinking.html



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PRESS RELEASES

2020

Press release 2020-07-02

Waste heat in Europe – unique insight into the way industries are thinking

Although viable techniques for utilizing industrial surplus heat already exist, a mere fraction of the latent potential is currently used. The EU-project So What is working on a digital tool to facilitate collaboration between industry and energy companies and has delivered two reports on how to create business models and overcome obstacles to take advantage of these energy flows.

– The reports address preconditions for using industrial waste heat in the various European countries in our purview. They provide a unique insight into how people think in industries in these countries and are a prerequisite for moving forward with different solutions, says Sofia Klugman, project manager at IVL Swedish Environmental Research Institute.

Industrial surplus heat in the EU has an estimated potential of 300 TWh per year. This corresponds to about ten per cent of the total heating demand for housing across the EU. The greatest potential for excess heat is to be found in the steel industry.

The project includes demonstration sites in Romania, Spain, Portugal, Italy, Belgium and England, as well as a so-called lighthouse cluster in Sweden which consists of Göteborgs energi and Varbergs energi. These sites have contributed with good examples of practical solutions, both technically and commercially.

Based on this input, IVL, which is responsible for developing business models for the demo sites, has listed common obstacles that stand in the way of residual heat cooperation. One of the reports shows how agreements can be designed to overcome these. For example, one of these obstacles is the high investment costs for pipelines and other technologies incurred at the beginning of a collaborative project.

– It is crucial to be able to demonstrate an economic model in which all the parties involved benefit, and where they also are provided with long-term security through the agreements they sign up for. We want to highlight business arrangements that can be used when the partners have completely different requirements for payoff time, is often the case when the contracting parties are both privately and publicly owned, says Sofia Klugman.

Sometimes it is difficult for companies invest outside their core business. In this case they may need to involve a third party, e g , an energy company able to assume responsibility for the design and operation of the heating or cooling network and other related equipment.

Varying prerequisites

From a European perspective, this is also very much about increasing understanding of the various stakeholder systems in order to move forward with solutions. So What embraces 20 partners in nine countries. Among them, only Sweden and Romania already have some form of district heating infrastructure, but even in these two countries, district cooling is scantily implemented although it has great potential.

– In the countries where this infrastructure is lacking, the challenges are even greater. Here there is often a lack of both a regulatory framework and local expertise for laying pipelines. A new way of thinking about business arrangements may also be needed when there is no major district heating player in the equation. For several of the demo sites in the project, it is also a question of delivering heat and cooling to big individual customers, such as hospitals or airports, rather than targeting urban development, says Sofia Klugman.

From a European perspective, Sweden is unique because we are not dependent on natural gas, like many other countries. Sweden is also a world leader when it comes to using industrial surplus heat. Eight per cent of Sweden's heating needs are supplied in this way. In other countries, competition with low natural gas prices may make it difficult to introduce alternative forms of heating, even if there is a political will to become less dependent on natural gas.

The So What initiative is now attempting to identify risks associated with business plans, carry out cost and benefit analyses for the demo sites and proposals as to how business plans can be integrated into a digital tool that is under development.

The reports can be downloaded here

Report on current barriers to industrial WHC recovery and exploitation

Report on current Contractual Arrangements for WHC exploitation

For more information, please contact:
Sofia Klugman, sofia.klugman@ivl.se, +46(0)10-788 67 17

So What spans demonstration sites in six countries. In Sweden, the Värö pulp mill in Varberg and the Preem and ST1 refineries in Gothenburg. In Spain, a pulp mill, in Portugal, a waste incineration plant, in Italy, a distillery, in Belgium, a chemical industry, materials recycling and incineration, in England, the steel industry and in Romania a refinery and smaller local industries such as a bakery and a building materials manufacturer.

Last updated: 2020-08-27

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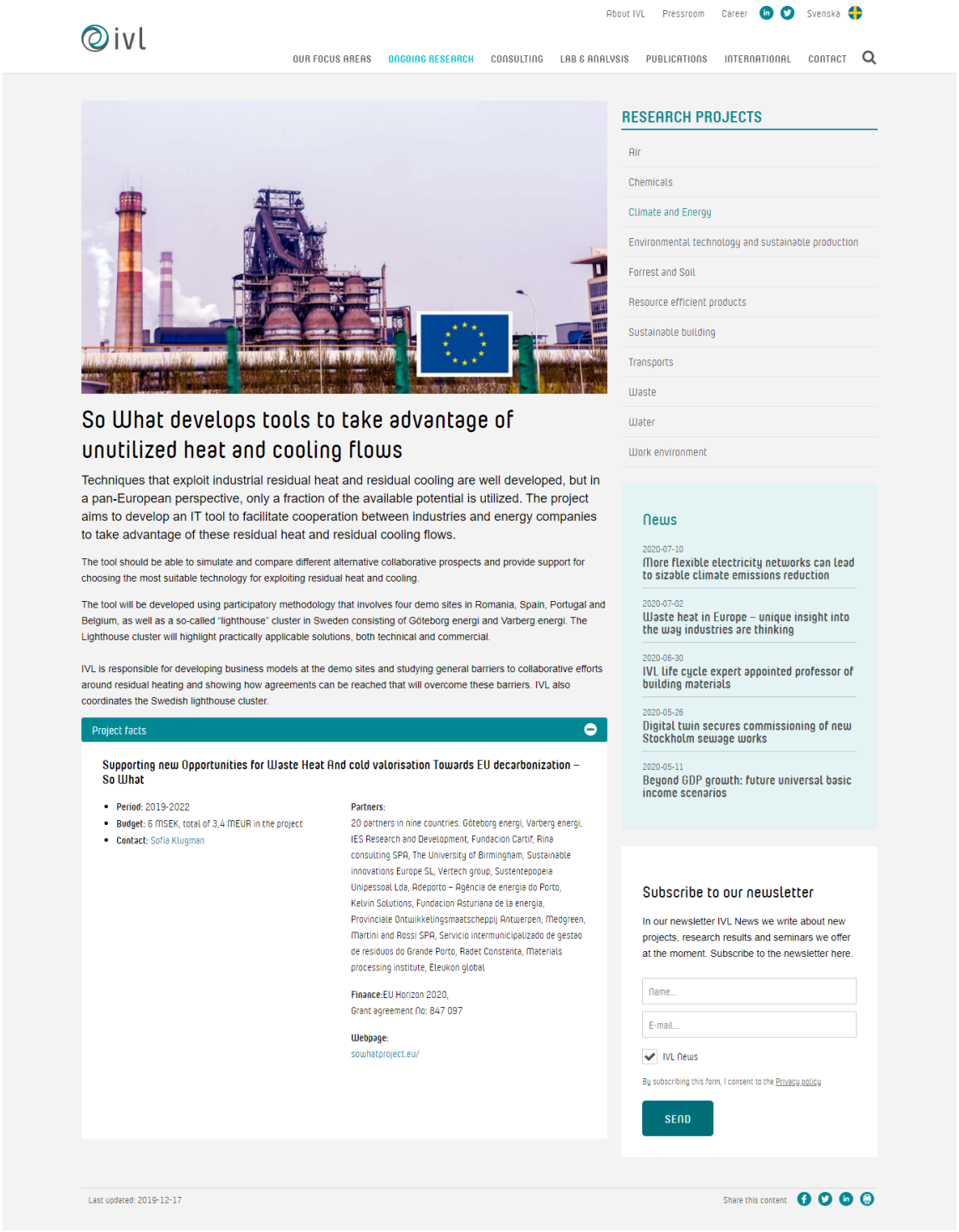

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ENVI website

https://www.envipark.com/progetto/so-what/

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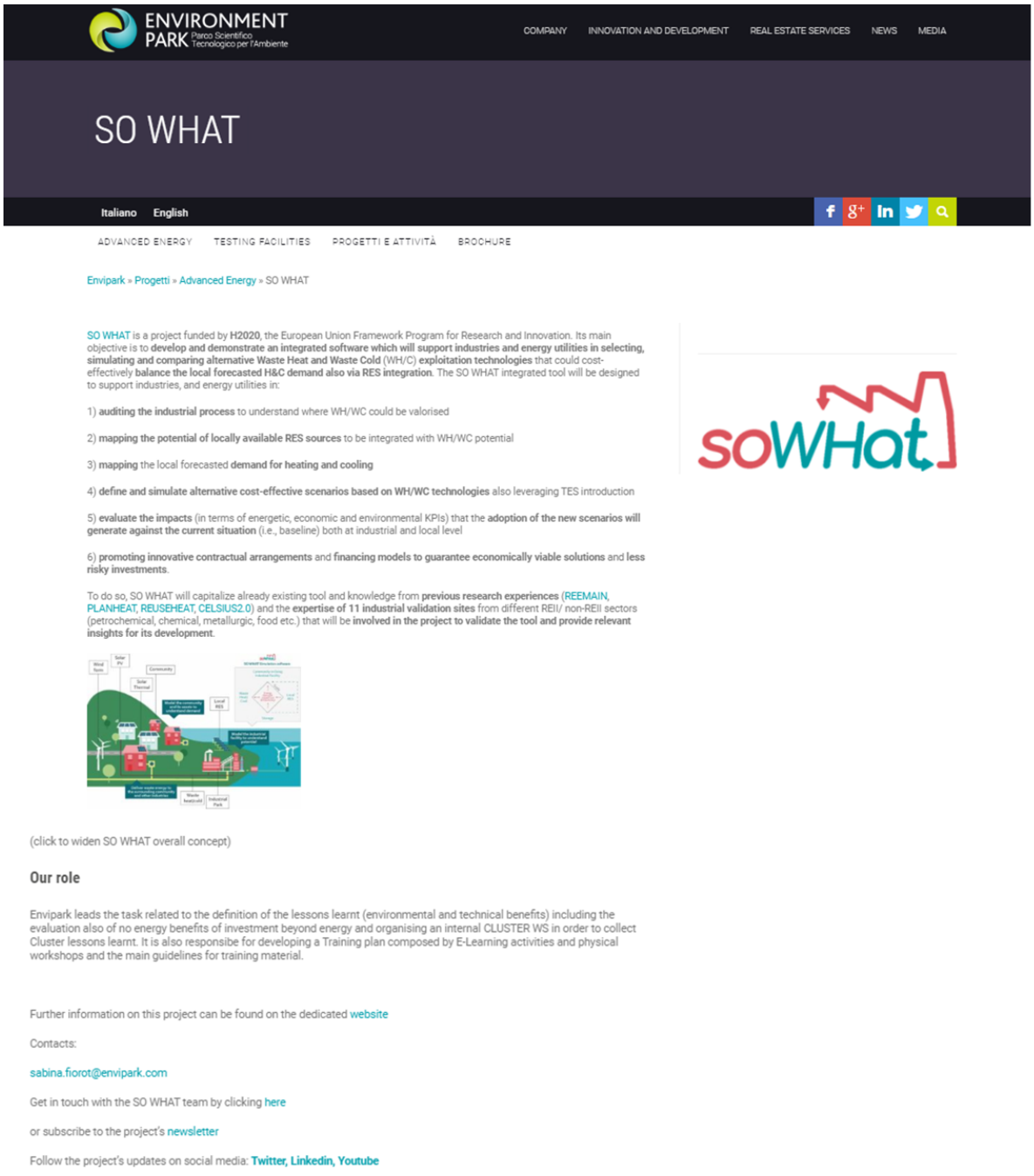

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FAEN Website

http://www.faen.es/project/so-what/

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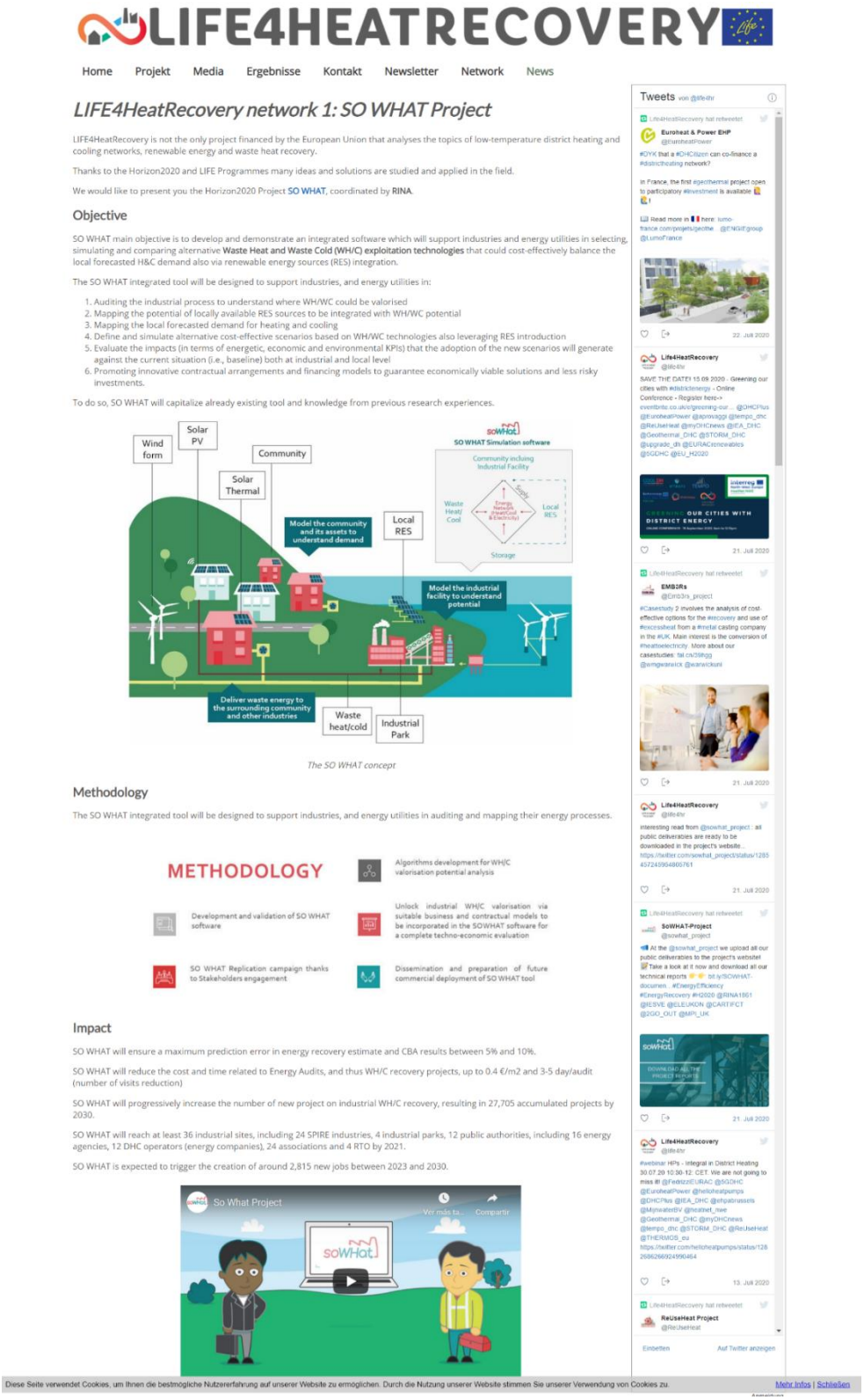
Life 4 Heat Recovery

http://www.life4heatrecovery.eu/de/News/sowhatproject



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Ambiente Magazine

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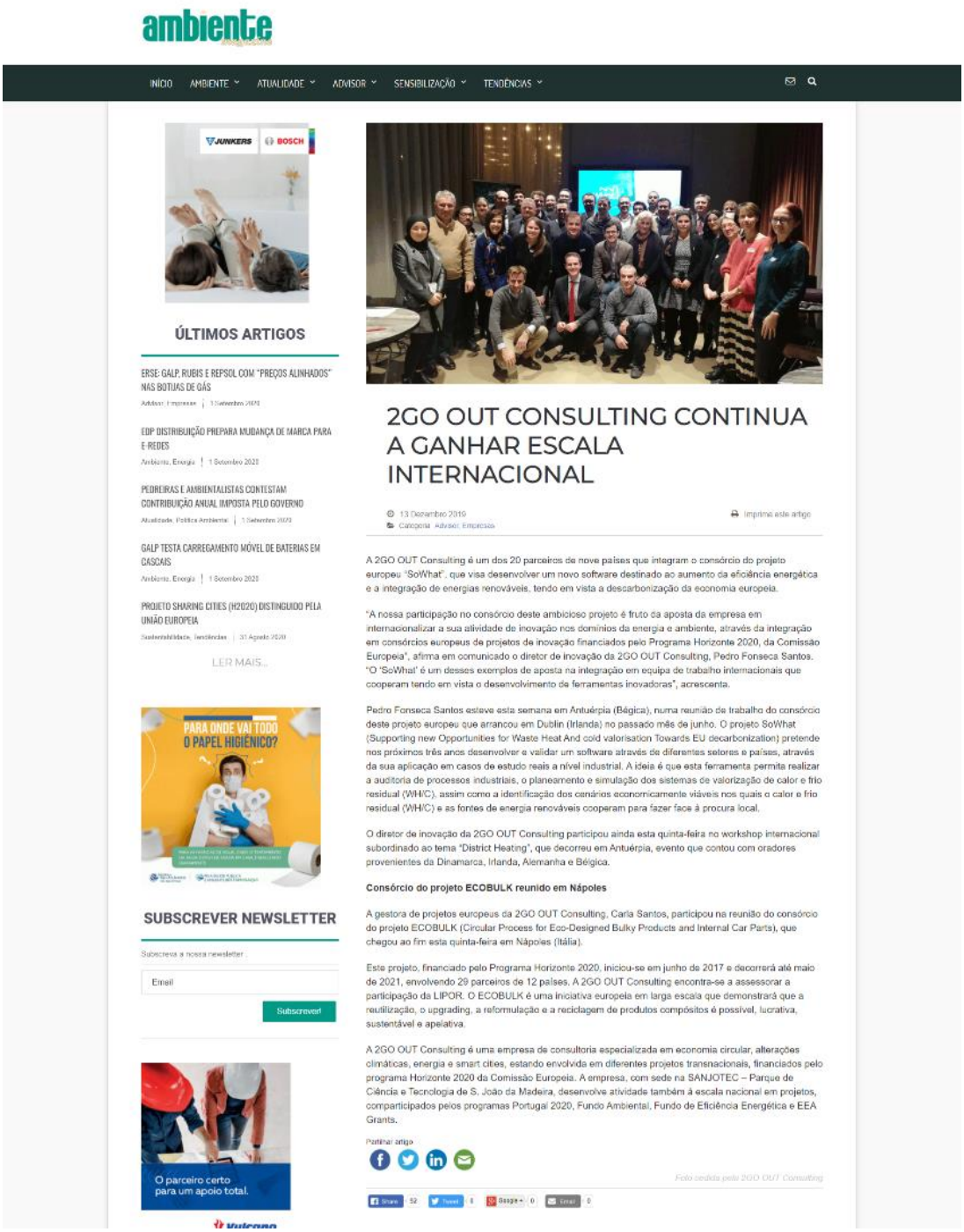

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2GO OUT CONSULTING CONTINUA A GANHAR ESCALA INTERNACIONAL

13 Dezembro 2019 Imprimir este artigo

Categoria: Advisor, Empresas

A 2GO OUT Consulting é um dos 20 parceiros de nove países que integram o consórcio do projeto europeu "SoWhat", que visa desenvolver um novo software destinado ao aumento da eficiência energética e a integração de energias renováveis, tendo em vista a descarbonização da economia europeia.

"A nossa participação no consórcio deste ambicioso projeto é fruto da aposta da empresa em internacionalizar a sua atividade de inovação nos domínios da energia e ambiente, através da integração em consórcios europeus de projetos de inovação financiados pelo Programa Horizonte 2020, da Comissão Europeia", afirma em comunicado o diretor de inovação da 2GO OUT Consulting, Pedro Fonseca Santos. "O 'SoWhat' é um desses exemplos de aposta na integração em equipa de trabalho internacionais que cooperam tendo em vista o desenvolvimento de ferramentas inovadoras", acrescenta.

Pedro Fonseca Santos esteve esta semana em Antuérpia (Bégica), numa reunião de trabalho do consórcio deste projeto europeu que arrancou em Dublin (Irlanda) no passado mês de junho. O projeto SoWhat (Supporting new Opportunities for Waste Heat And cold valorisation Towards EU decarbonization) pretende nos próximos três anos desenvolver e validar um software através de diferentes setores e países, através da sua aplicação em casos de estudo reais a nível industrial. A ideia é que esta ferramenta permita realizar a auditoria de processos industriais, o planeamento e simulação dos sistemas de valorização de calor e frio residual (WH/C), assim como a identificação dos cenários economicamente viáveis nos quais o calor e frio residual (WH/C) e as fontes de energia renováveis cooperam para fazer face à procura local.

O diretor de inovação da 2GO OUT Consulting participou ainda esta quinta-feira no workshop internacional subordinado ao tema "District Heating", que decorreu em Antuérpia, evento que contou com oradores provenientes da Dinamarca, Irlanda, Alemanha e Bélgica.

Consórcio do projeto ECOBULK reunido em Nápoles

A gestora de projetos europeus da 2GO OUT Consulting, Carla Santos, participou na reunião do consórcio do projeto ECOBULK (Circular Process for Eco-Designed Bulky Products and Internal Car Parts), que chegou ao fim esta quinta-feira em Nápoles (Itália).

Este projeto, financiado pelo Programa Horizonte 2020, iniciou-se em junho de 2017 e decorrerá até maio de 2021, envolvendo 29 parceiros de 12 países. A 2GO OUT Consulting encontra-se a assessorar a participação da LIPOR. O ECOBULK é uma iniciativa europeia em larga escala que demonstrará que a reutilização, o upgrading, a reformulação e a reciclagem de produtos compósitos é possível, lucrativa, sustentável e apelativa.

A 2GO OUT Consulting é uma empresa de consultoria especializada em economia circular, alterações climáticas, energia e smart cities, estando envolvida em diferentes projetos transnacionais, financiados pelo programa Horizonte 2020 da Comissão Europeia. A empresa, com sede na SANJOTEC – Parque de Ciência e Tecnologia de S. João da Madeira, desenvolve atividade também à escala nacional em projetos, comparticipados pelos programas Portugal 2020, Fundo Ambiental, Fundo de Eficiência Energética e EEA Grants.

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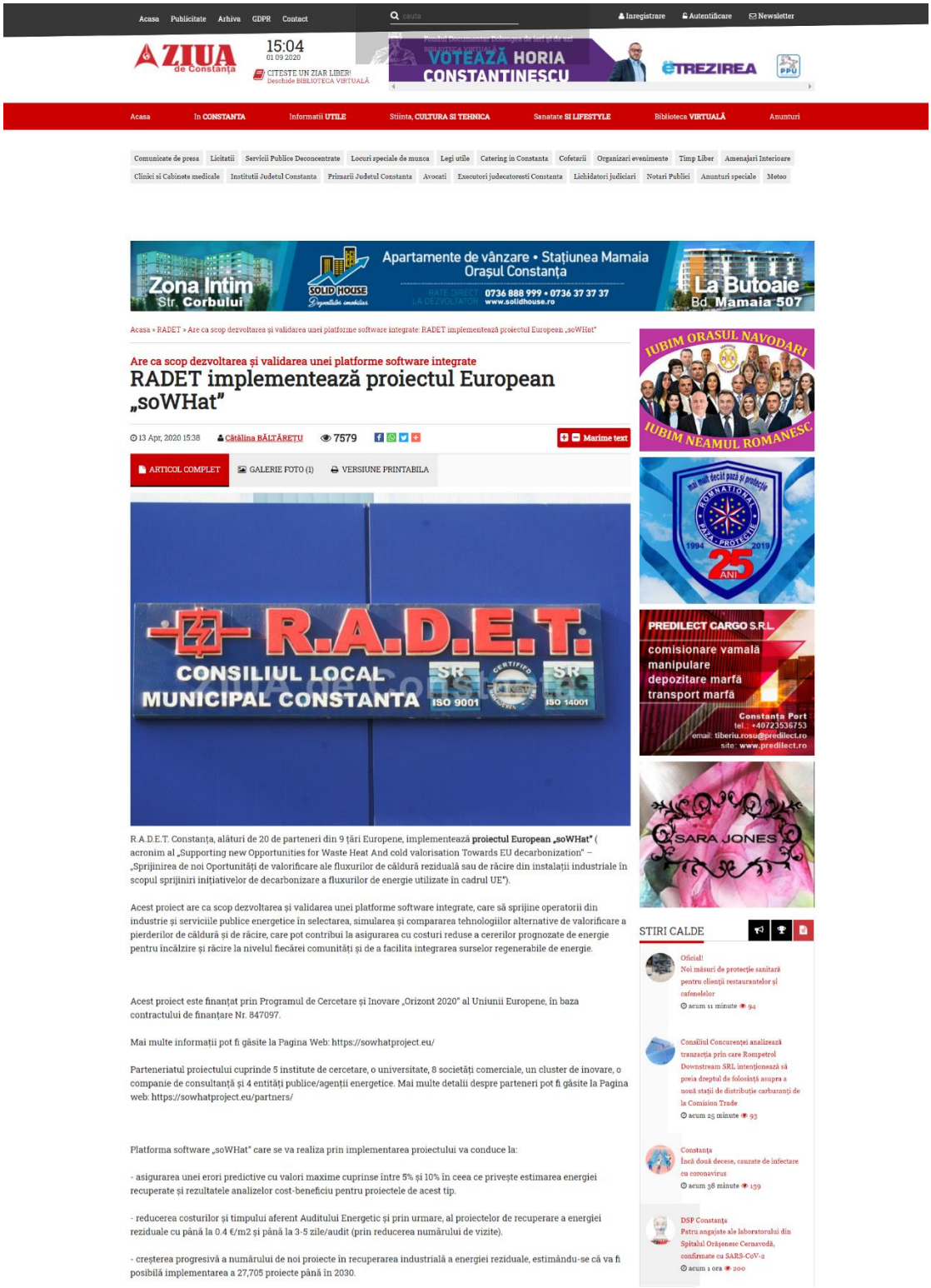
Ziua Constanta

https://www.ziuaconstanta.ro/informatii/radet/are-ca-scop-dezvoltarea-si-validarea-unei-platforme-software-integrate-radet-implementeaza-proiectul-european-sowhat-717133.html



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ZIUA de Constanța 15:04 01 09 2020

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VOTEAZĂ HORIA CONSTANTINESCU

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Acasa » RADET » Are ca scop dezvoltarea și validarea unei platforme software integrate: RADET implementează proiectul European „soWHat"

Are ca scop dezvoltarea și validarea unei platforme software integrate

RADET implementează proiectul European „soWHat"

13 Apr, 2020 15:38 Cătălina BĂLTĂREȚU 7579 Marime text

ARTICOL COMPLET GALERIE FOTO (1) VERSIUNE PRINTABILA

R.A.D.E.T. Constanța, alături de 20 de parteneri din 9 țări Europene, implementează **proiectul European „soWHat"** (acronim al „Supporting new Opportunities for Waste Heat And cold valorisation Towards EU decarbonization" – „Sprijinirea de noi Oportunități de valorificare ale fluxurilor de căldură reziduală sau de răcire din instalații industriale în scopul sprijinirii inițiativelor de decarbonizare a fluxurilor de energie utilizate în cadrul UE").

Acest proiect are ca scop dezvoltarea și validarea unei platforme software integrate, care să sprijine operatorii din industrie și serviciile publice energetice în selectarea, simularea și compararea tehnologiilor alternative de valorificare a pierderilor de căldură și de răcire, care pot contribui la asigurarea cu costuri reduse a cererilor prognozate de energie pentru încălzire și răcire la nivelul fiecărei comunități și de a facilita integrarea surselor regenerabile de energie.

Acest proiect este finanțat prin Programul de Cercetare și Inovare „Orizont 2020" al Uniunii Europene, în baza contractului de finanțare Nr. 847097.

Mai multe informații pot fi găsite la Pagina Web: https://sowhatproject.eu/

Parteneriatul proiectului cuprinde 5 institute de cercetare, o universitate, 8 societăți comerciale, un cluster de inovare, o companie de consultanță și 4 entități publice/agenții energetice. Mai multe detalii despre parteneri pot fi găsite la Pagina web: https://sowhatproject.eu/partners/

Platforma software „soWHat" care se va realiza prin implementarea proiectului va conduce la:

- asigurarea unei erori predictive cu valori maxime cuprinse între 5% și 10% în ceea ce privește estimarea energiei recuperate și rezultatele analizelor cost-beneficiu pentru proiectele de acest tip.

- reducerea costurilor și timpului aferent Auditului Energetic și prin urmare, al proiectelor de recuperare a energiei reziduale cu până la 0.4 €/m2 și până la 3-5 zile/audit (prin reducerea numărului de vizite).

- creșterea progresivă a numărului de noi proiecte în recuperarea industrială a energiei reziduale, estimându-se că va fi posibilă implementarea a 27,705 proiecte până în 2030.

STIRI CALDE

Oficial! Noi măsuri de protecție sanitară pentru clienții restaurantelor și cafenelelor
acum 11 minute 94

Consiliul Concurenței analizează tranzacția prin care Rompetrol Downstream SRL intenționează să preia dreptul de folosință asupra a nouă stații de distribuție carburanți de la Comision Trade
acum 25 minute 93

Constanța Încă două decese, cauzate de infectare cu coronavirus
acum 38 minute 139

DSP Constanța Patru angajate ale laboratorului din Spitalul Orășenesc Cernavodă, confirmate cu SARS-CoV-2
acum 1 ora 200

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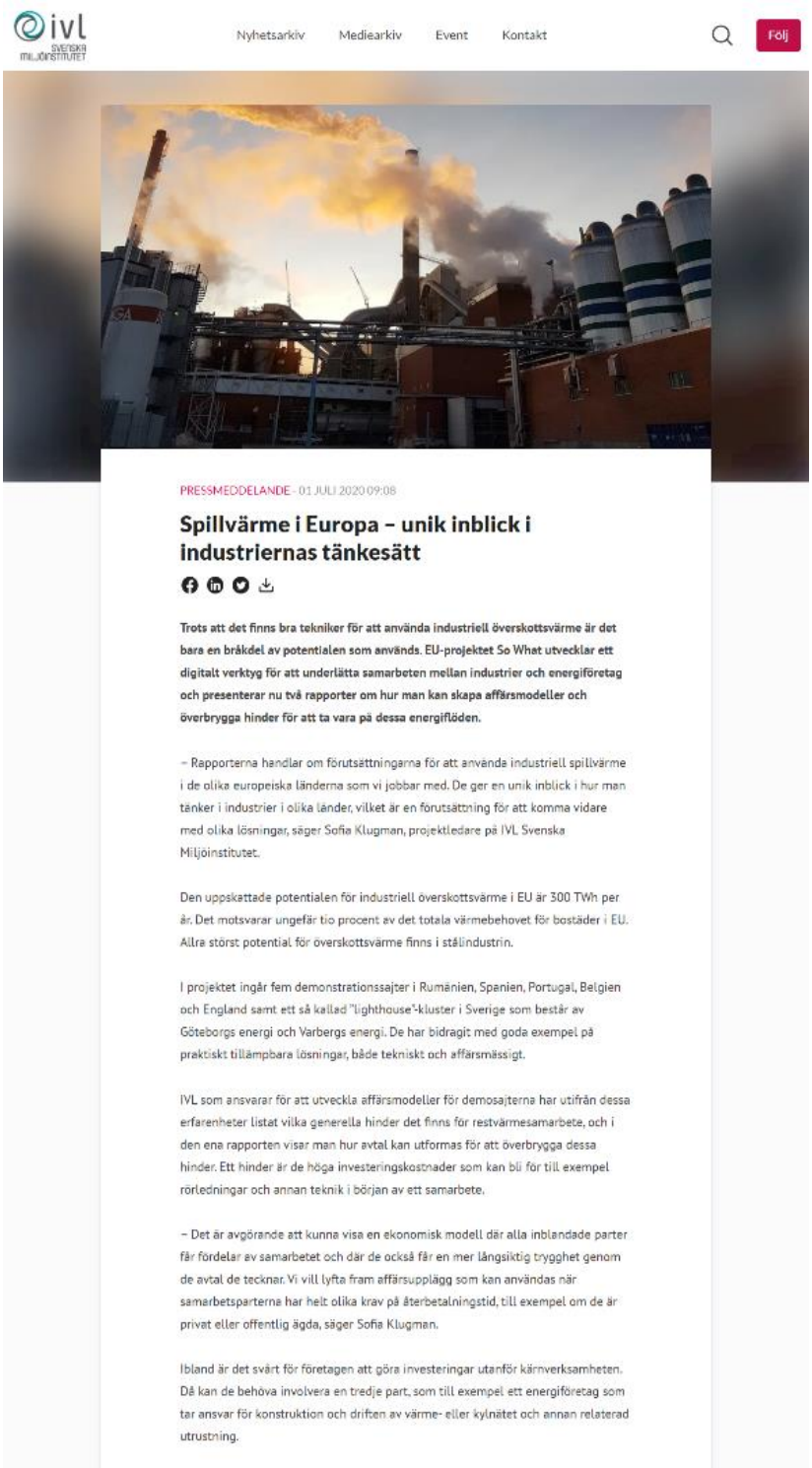
My news desk

https://www.mynewsdesk.com/se/ivl_svenska_miljoinstitutet_ab__/pressreleases/spillvaerme-i-europa-unik-inblick-i-industriernas-taenkesaett-3018933



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PRESSMEDDELANDE - 01 JULI 2020 09:08

Spillvärme i Europa – unik inblick i industriernas tänkesätt

Trots att det finns bra tekniker för att använda industriell överskottsvärme är det bara en bråkdel av potentialen som används. EU-projektet So What utvecklar ett digitalt verktyg för att underlätta samarbeten mellan industrier och energiföretag och presenterar nu två rapporter om hur man kan skapa affärsmodeller och överbrygga hinder för att ta vara på dessa energiflöden.

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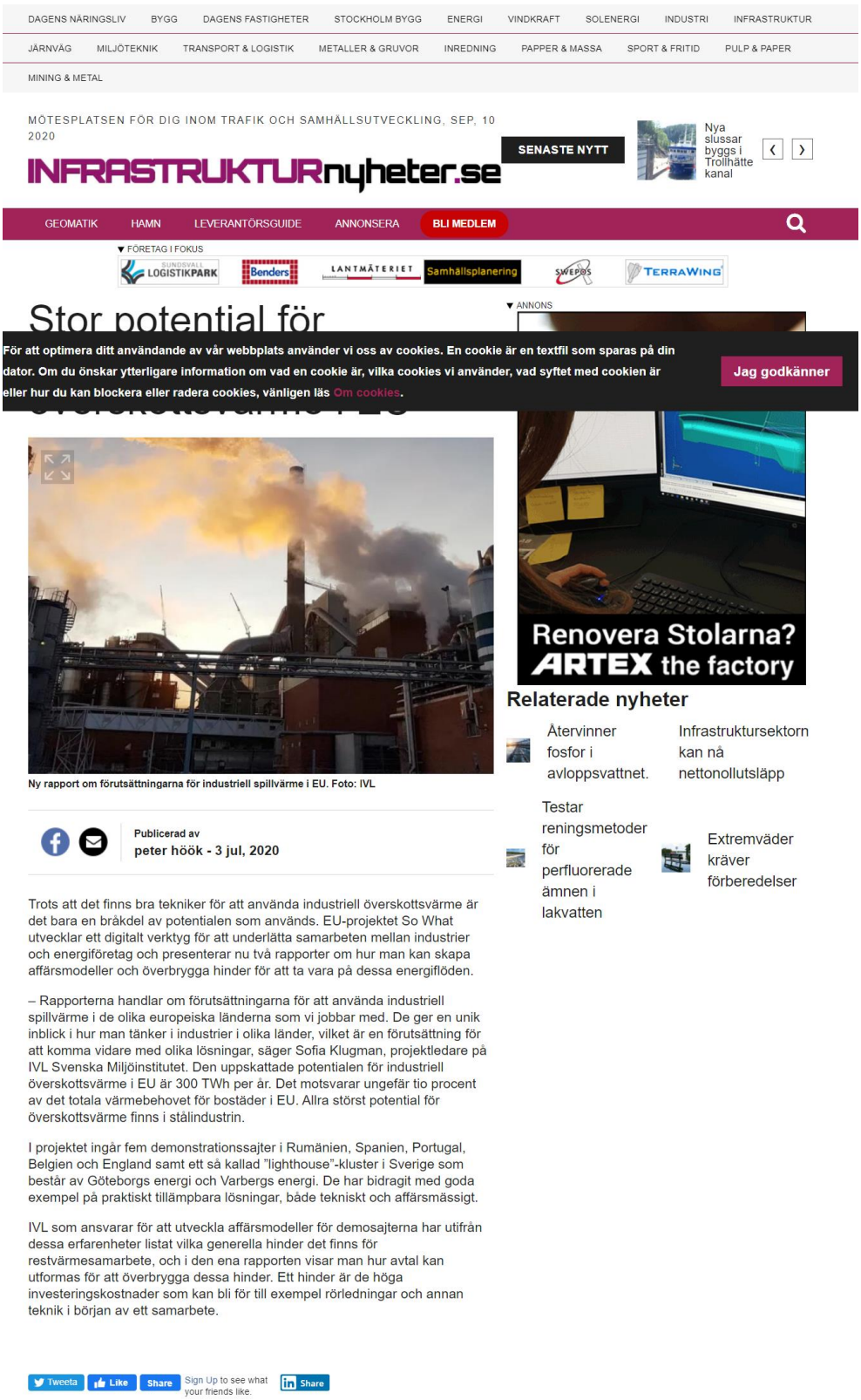
Infrastrukturnyheter

https://www.infrastrukturnyheter.se/20200703/23409/stor-potential-industriell-overskottsvarme-i-eu



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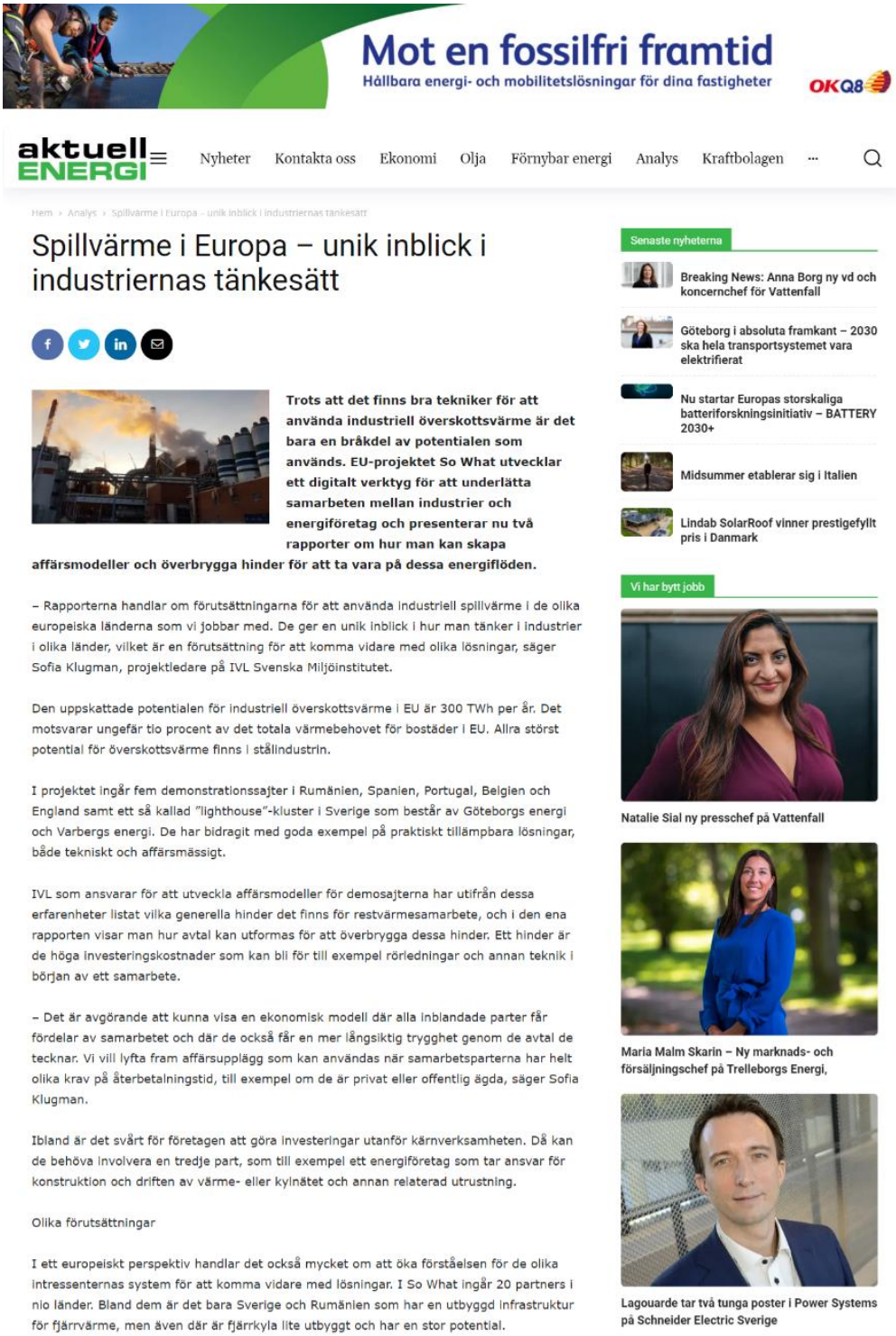
Aktuellenergi

https://.se/spillvarme-i-europa-unik-inblick-i-industriernas-tankesatt/



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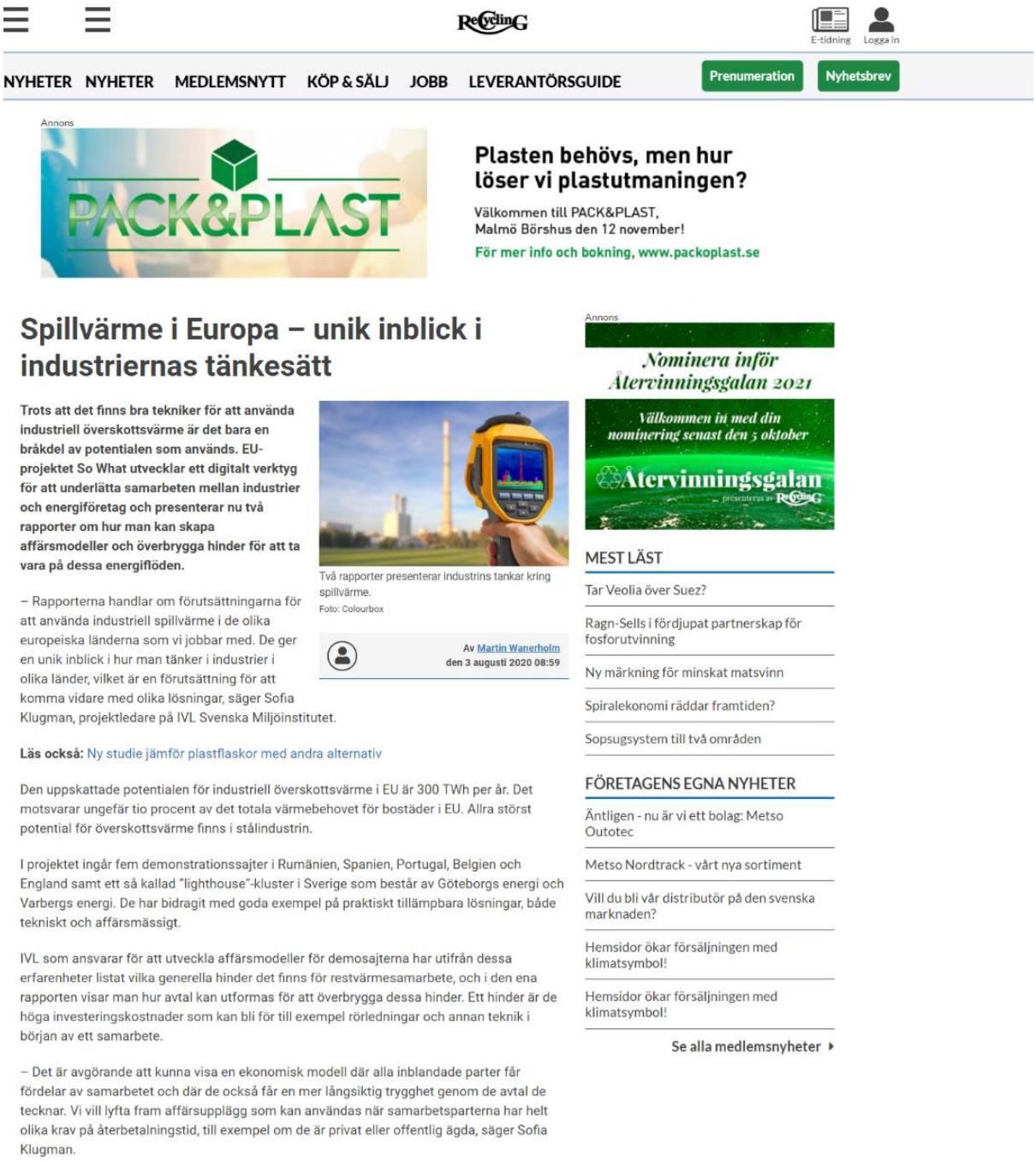

NYHETER NYHETER MEDLEMSNYTT KÖP & SÄLJ JOBB LEVERANTÖRSGUIDE Prenumeration Nyhetsbrev

Annons

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Spillvärme i Europa – unik inblick i industriernas tänkesätt

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Två rapporter presenterar industrins tankar kring spillvärme.
Foto: Colourbox

Av Martin Wanerholm
den 3 augusti 2020 08:59

– Rapporterna handlar om förutsättningarna för att använda industriell spillvärme i de olika europeiska länderna som vi jobbar med. De ger en unik inblick i hur man tänker i industrier i olika länder, vilket är en förutsättning för att komma vidare med olika lösningar, säger Sofia Klugman, projektledare på IVL Svenska Miljöinstitutet.

Läs också: Ny studie jämför plastflaskor med andra alternativ

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Annons

Nominera inför Återvinningsgalan 2021

Välkommen in med din nominering senast den 5 oktober

Återvinningsgalan presenteras av Recycling

MEST LÄST

- Tar Veolia över Suez?
- Ragn-Sells i fördjupat partnerskap för fosforutvinning
- Ny märkning för minskat matsvinn
- Spiralekonomi räddar framtiden?
- Sopsugsystem till två områden

FÖRETAGENS EGNA NYHETER

- Äntligen - nu är vi ett bolag: Metso Outotec
- Metso Nordtrack - vårt nya sortiment
- Vill du bli vår distributör på den svenska marknaden?
- Hemsidor ökar försäljningen med klimatsymbol!
- Hemsidor ökar försäljningen med klimatsymbol!

Se alla medlemsnyheter

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Processnet

https://www.processnet.se/article/view/726674/spillvarme_i_europa_unik_inblick_i_industriernas_tankesatt

process.

E-tidning Logga in

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Läs också: Ny pilotanläggning ska utvinna kväve ur avloppsvatten

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Läs också: "Säkerhet får inte vara en prioriteringsfråga"

Ibland är det svårt för företagen att göra investeringar utanför kärnverksamheten. Då kan de behöva involvera en tredje part, som till exempel ett energiföretag som tar ansvar för konstruktion och driften av värme- eller kylnätet och annan relaterad utrustning.

I ett europeiskt perspektiv handlar det också mycket om att öka förståelsen för de olika intressenternas system för att komma vidare med lösningar. I So What ingår 20 partners i nio länder. Bland dem är det bara Sverige och Rumänien som har en utbyggd infrastruktur för fjärrvärme, men även där är fjärrkyla lite utbyggt och har en stor potential.

– I de länder där infrastrukturen saknas är utmaningarna större. Ofta saknas det både regelverk och lokal kompetens för att lägga rörledningar. Ett nytänk för affärsupplägg kan också behövas när det inte finns en stor fjärrvärmeaktör som part. För flera av demosajterna i projektet handlar det även om leverans av värme och kyla till enstaka stora kunder, som till sjukhus eller en flygplats, snarare än stadsbebyggelse, säger Sofia Klugman.

I ett europeiskt perspektiv är Sverige unikt eftersom vi inte är beroende av naturgas som många andra länder. Sverige är också världsledande på att använda industriell överskottsvärme. Åtta procent av Sveriges värmebehov försörjs med detta. I andra länder kan konkurrens med låga naturgaspriser göra det svårt att introducera alternativa uppvärmningsformer, även om det finns en politisk vilja att bli mindre beroende av naturgas.

I So What arbetar man nu vidare med att identifiera risker med affärsupplägg, göra kostnads- och nytto-analyser för demosajterna och föreslå hur affärsupplägg ska integreras i det digitala verktyget som projektet utvecklar.

MEST LÄST

Marknaden för tryckpapper kollapsar
Här är framtidens kärnkraft - Del 1
Nu har nästan hundratusen varslats
Hennes forskning ska hjälpa ma
Här planeras för en batterifabri

process.

FÖRETAGENS EGNA NYHE

Smarta automatiserings- och övervakningssystem (SAMS)!
Kostnadsfritt webinar i nya E-se
oljefri tryckluft
RFID minimerar fel och stillestå
under formatändring!

Höstens kostnadsfria webinarprogram är ute nu- JUMO
Nyheter: CC-Link IE Field Basic Network Master med IO-Link

Se alla medlemsnyheter

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Metal Supply

https://www.metal-supply.se/article/view/726833/overskottsvarmen_finns_framst_i_stalindustrin?ref=rss

METAL SUPPLY

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Överskottsvärmen finns främst i stålindustrin

Det handlar om att ta vara på spillvärmen i Europa.

Trots att det finns bra tekniker för att använda industriell överskottsvärme är det bara en bråkdel av potentialen som används. Det menar EU-projektet So What som utvecklar ett digitalt verktyg för att underlätta samarbeten mellan industrier och energiföretag. Nu presenteras två rapporter om hur man kan skapa affärsmodeller och överbrygga hinder för att ta vara på dessa energiflöden.

Foto: Colourbox

Av Anna Broberg
den 17 juli 2020 07:15

Läs också: Nya drönarregler skjuts fram på grund av coronan

– Rapporterna handlar om förutsättningarna för att använda industriell spillvärme i de olika europeiska länderna som vi jobbar med. De ger en unik inblick i hur man tänker i industrier i olika länder, vilket är en förutsättning för att komma vidare med olika lösningar, säger Sofia Klugman, projektledare på IVL Svenska Miljöinstitutet.

Enligt projektet är den uppskattade potentialen för industriell överskottsvärme i EU 300 TWh per år. Det motsvarar ungefär tio procent av det totala värmebehovet för bostäder i EU. Allra störst potential för överskottsvärme menar man finns i stålindustrin.

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MEST LÄST

Ny chef för Sandvik

300 danska ingenjörer mister jobbet

Nu har nästan hundra tusen vars

Zinkgruvanit – helt nytt mineral

LaserTool säljer verksamhet till

FÖRETAGENS EGNA NYHE

Flexibel konstruktion i räddning

Meggitt A/S uppskattar digital s support

Smarta automatiserings- och övervakningssystem (SAMS)!

Kostnadsfritt webinar i nya E-se oljefri tryckluft

MNX PC/ABS kapslingar från Fi

Se alla medlems

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Dagensn Naringsliv

https://www.dagensnaringsliv.se/20200703/191096/stor-potential-industriell-overskottsvarme-i-eu?page=0%2C1

Stor potential för industriell överskottsvärme i EU

Ny rapport om förutsättningarna för industriell spillvärme i EU. Foto: IVL

Publicerad av
peter höök - 3 jul, 2020

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7 ANNEX II: WEBINAR AGENDA

11:00 – 11:05 Introduction to the webinar and projects [Ana Martinez and Francesco Peccianti]

11.05 – 11.20 Waste heat, an introduction on its relevance [Eric Lecomte - EC]

11:20 – 11:40 Thematic area 1 Cooperation and industrial parks: [S-PARCS, INCUBIS, R-ACES]

- S-PARCS: [Andrea Kollmann]
  - Context and brief introduction of the project
  - How will it empower cooperation in industrial parks?
- INCUBIS: [Yorgos Chalkias]
  - Context and brief introduction of the project
  - How will it empower cooperation in industrial parks?
- R-ACES: [Peter Verboven]
  - Context and brief introduction of the project
  - How will it empower cooperation in industrial parks?

11:40 – 12:10 Thematic area 2 Tools to empower WH recovery: the perspective of relevant EU research projects

- SO WHAT: [Nick Purshouse]
  - Context and brief introduction of the project
  - Expected outcomes and tools. How will it empower WH recovery?
- S-PARCS: [Lola Mainar]
  - Context and brief introduction of the project
  - Expected outcomes and tools. How will it empower WH recovery?
- EMB3RS: [Zenaida Mourao]
  - Context and brief introduction of the project
  - Expected outcomes and tools. How will it empower WH recovery? -

12.10 – 12.15 Conclusions [Francesco Peccianti]

12:15 – 12:30 Questions & Answers

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8 ANNEX III: EUROPEAN ASSOCIATIONS

STAKEHOLDER	COUNTRY	WEBSITE
World Energy Council	Austria	https://www.wec-austria.at/
BELESCO (Belgian ESCO Association)	Belgium	https://www.belesco.be/
ABEA - Association of Bulgarian Energy Agencies	Bulgary	https://new.abea-bg.org/?lng=EN
Bulgarian Energy Holding	Bulgary	https://www.bgenh.com/
World Energy Council	Croatia	http://www.hed.hr/
Association of Energy Service Providers (APES) of the Czech Republic	Czech Republic	http://www.apes.cz/
E.ON Energie, a.s	Czech Republic	www.eon.cz
World Energy Council	Estonia	http://www.wec-estonia.ee/kontakt/
European Chemical Industry Council	EU	https://cefic.org/
European Committee of Manufacturers of Electrical Machines and Power Electronics	EU	https://cemep.eu/
Energy Efficiency in Industrial Processes	EU	https://www.eera-set.eu/component/projects/projects.html?id=44
European Energy Research Alliance	EU	https://www.eera-set.eu/
European Platform of Universities in Energy Research and Education of the European University Association	EU	https://www.energy.eua.eu/
European Confederation of Iron and Steel Industries	EU	http://www.eurofer.org/
District Heating & Cooling and Combined Heat & Power Association	EU	https://www.euroheat.org/

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Mechanical, Electrical & Electronic, Metalworking & Metal articles industries	EU	https://orgalim.eu/
SPIRE - Sustainable Process Industry through Resource and Energy Efficiency	EU	https://www.spire2030.eu/
EU Geothermal Energy Council	EU	https://www.egec.org/
European associations representing the turbine sector in Europe	EU	https://www.eugine.eu/
EIT INNOENERGY IBERIA S.L.	EU	https://www.innoenergy.com/
European Technology and Innovation Platform on Renewable Heating and Cooling	EU	https://www.rhc-platform.org/
EUREC - Association of European Renewable Energy Research Centres	EU	https://eurec.be/
The Coalition for Energy Savings	EU	http://energycoalition.eu/
EUASE - European Alliance to Save Energy	EU	https://euase.net/contact-us/
EuroACE - European Alliance of Companies for Energy Efficiency in Buildings	EU	https://euroace.org/
HEAL - Health and Environment Alliance	EU	https://www.env-health.org/
Sit4energy	EU	https://sit4energy.eu/
EDIEES - European Federation of Intelligent Energy Efficiency Services	EU	http://www.efiees.eu/
DHC Plus	EU	dhcplus.eu
FEDENE - Fédération des services énergie environnement	France	https://www.fedene.fr/c
Electricité de France (EDF)	France	/www.edf.fr/
Berliner Energy Agentur	Germany	https://www.berliner-e-agentur.de/en

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SEAI - Sustainable Energy Authority of Ireland	Ireland	https://www.seai.ie/
Irish District Energy Association	Ireland	https://www.districtenergy.ie/
ARERA - Italian Regulatory Authority for Energy	Italy	https://www.arera.it/
ENEA - Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile	Italy	https://www.enea.it/
KAPE - The Polish National Energy Conservation Agency	Poland	https://www.kape.gov.pl/
Direção-Geral de Energia e Geologia	Portugal	http://www.dgeg.gov.pt/
Romanian Energy Regulatory Authority	Romania	https://www.anre.ro/ro/contact
IDAE - Instituto para la Diversificatiòn y Ahorro de la Energìa	Spain	https://idae.es/
ANESE -Asociación Nacional de Empresas de Servicios Energético	Spain	https://www.anese.es/
APPA Renovables - Spanish Renewable Energy Association Spain	Spain	https://www.appa.es/
ASOCIACIÓN DE EMPRESAS DE ENERGÍA ELECTRICA	Spain	https://aelec.es/
ASOCIACIÓN DE EMPRESAS DE MANTENIMIENTO INTEGRAL Y SERVICIOS ENERGÉTICOS	Spain	http://www.amiasociacion.es/
Asociación de Empresas de Energías Renovables	Spain	https://www.appa.es/
Asociación Empresarial Eólica	Spain	https://aeeolica.org/
Sedigas - Asociación Española del Gas	Spain	https://www.sedigas.es/
ASOCIACION ESPAÑOLA OPERADORES DEL PETROLEO	Spain	https://www.aop.es/

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Asociación Nacional de Empresas de Servicios Energéticos	Spain	https://www.anese.es/
Asociación Nacional de Productores Fotovoltaicos - ANPIER	Spain	https://anpier.org/
Asociación para un Gas Industrial Competitivo - GasIndustrial	Spain	https://www.gasindustrial.es/
Centro Nacional de Energías Renovables	Spain	http://www.cener.com/
Ente Vasco de la Energía	Spain	http://www.eve.es/
IMDEA Energía	Spain	https://www.energia.imdea.org/
EREN - Ente Regional de la Energía de la Junta de Castilla y León	Spain	www.energia-jcyl.es
EEF Energi Effektiviserings Foretagen	Sweden	https://eef.se/
Swedish Energy Agency	Sweden	http://www.energimyndigheten.se/
SweHeat	Sweden	https://sweheat.com/
Smart City Sweden	Sweden	https://smartcitysweden.com/
Innovate UK	UK	https://www.gov.uk/government/organisations/innovate-uk
Energy Managers Association	UK	https://www.theema.org.uk/contact-us/

9 ANNEX III: DISSEMINATION TABLE

TYPE OF ACTIVITY	MAIN LEADER	TITLE	DATE	PLACE	TYPE OF AUDIENCE	SIZE OF AUDIENCE	LINK
Social media	Pedro Fonseca / 2GOOUT	Second newsletter	20-November 2019	Twitter	General audience	132 followers	https://twitter.com/Pedro_2GO_OUT/status/1197213223000453127
Social media	2GOOUT	Second newsletter	20-November 2019	Twitter	General audience	26 followers	https://twitter.com/2GO_OUT/status/1197109102184402944

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Social media	2GOOUT	Workshop and panel in Antwerp	12-November 2019	Twitter	General audience	26 followers	https://twitter.com/2GO_OUT/status/1194207834000502784
Social media	2GOOUT	General post	June 2020	LinkedIn	General audience	515	https://www.linkedin.com/posts/2go-out-consulting_wasteheat-wastecold-activity-6674227691383848960-ISON
Social media	2GOOUT	General post	May 2020	LinkedIn	General audience	515	https://www.linkedin.com/posts/2go-out-consulting_so-what-partners-activity-6671342148664729600-xgnB
Social media	2GOOUT	General post	July 2, 2020	Twitter	General audience	33 followers	https://twitter.com/2GO_OUT/status/1278625326772428806
Social media	2GOOUT	General post	June 4, 2020	Twitter	General audience	33 followers	https://twitter.com/2GO_OUT/status/1268462600662265856
Social media	2GOOUT	General post	April 15, 2020	Twitter	General audience	33 followers	https://twitter.com/2GO_OUT/status/1250438382972334081
Social media	2GOOUT	General post	March 25, 2020	Twitter	General audience	33 followers	https://twitter.com/2GO_OUT/status/1242839364494864391
Social media	2GOOUT	General post	March 5, 2020	Twitter	General audience	33 followers	https://twitter.com/2GO_OUT/status/1235534025688862721
Social media	2GOOUT	General post	July 2, 2020	Twitter	General audience	34 followers	https://twitter.com/2GO_OUT/status/1278625326772428806
News	2GOOUT	2Go Out continues to scale internationally	December 2019	Ambiente Magazine	Environment and energy		https://www.ambientemagazine.com/2go-out-consulting-continua-a-ganhar-escala-internacional/
Social media Post	CARTIF	General post	May 20, 2020	Twitter		2830	https://twitter.com/CARTIFCT/status/1263024229773172736
Social media Post	CARTIF	General post	May 20, 2020	Twitter		2830	https://twitter.com/CARTIFCT/status/1235181974861602821
Social media Post	CARTIF	General post	December 2019	Twitter		2830	https://twitter.com/CARTIFCT/status/1204668660385800192
Social media post	ELEUKON	General post	October 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_sowhat-demo-sites-activity-6725337116714266624-D5sV

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Social media post	ELEUKON	General post	October 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_project-activity-6724952629576769536-Tpmv
Social media post	ELEUKON	General post	October 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_related-projects-activity-6724318677296021504-cwP9
Social media post	ELEUKON	General post	October 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_project-activity-6723915743877976064-TnCN
Social media post	ELEUKON	General post	October 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_sowhat-demo-sites-activity-6723909657762516992-M4a8
Social media post	ELEUKON	General post	October 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_energy-efficiency-is-connected-activity-6723905082968043520-5U_0
Social media post	ELEUKON	General post	October 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_so-what-newsletter-5-activity-6720307489688064000-Gm1x
Social media post	ELEUKON	General post	October 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_whc-heatwaste-coldwaste-activity-6719534307121078272-l8Hr
Social media post	ELEUKON	General post	August 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_two-papers-presented-at-the-rankine-2020-activity-6704004080177553408-Epq7
Social media post	ELEUKON	General post	August 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_sowhat-demo-sites-activity-6704003599371923456-Ly9G
Social media post	ELEUKON	General post	August 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_2020-eu-web-awards-activity-6704002813124481024-hovX
Social media post	ELEUKON	General post	June 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_requirements-for-data-formats-and-indicatorspdf-activity-6678650356500709377-HYRN
Social media post	ELEUKON	General post	June 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_so-what-partners-activity-6676741572282974208-IL8T
Social media post	ELEUKON	General post	June 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_so-what-partners-activity-6670993226503196672-eYgZ
Social media post	ELEUKON	General post	May 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_the-involvement-of-the-so-what-project-partners-activity-6669511607795748864-oM2U
Social media post	ELEUKON	General post	May 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_documents-activity-6663730553734471681-jg28
Social media post	ELEUKON	General post	May 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_documents-activity-6661904705163272192-CGlJ
Social media post	ELEUKON	General post	April 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_user-requirements-for-the-so-what-tool-activity-6655747664463966208-dtyy
Social media post	ELEUKON	General post	March 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_nick-purshouse-from-ies-ri-explains-the-activity-6648856456059858944-j9Hb

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Social media post	ELEUKON	General post	January 2020	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_so-what-project-activity-6622773583431241728--AD5
Social media post	ELEUKON	General post	December 2019	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_consortiumselfie-consortiummeeting-generalassemblymeeting-activity-6610453738631114752-MMND
Social media post	ELEUKON	General post	November 2019	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_so-what-visits-ences-demosite-activity-6601446755324301312-Y9xC
Social media post	ELEUKON	General post	2019	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_kickoff-activity-6542025972781322240-0YCl
Social media post	ELEUKON	General post	2019	LinkedIn	General public	94	https://www.linkedin.com/posts/eleukon-3%2E0_software-waste-heat-activity-6542024946959429632-p9nq
Post on social media	ENVI PARK		June 2020	LinkedIn	General public	2.342	https://www.linkedin.com/posts/envipronment-park_documents-activity-6674590669568319488--u0t
Post on social media	ENVI PARK		May 2020	LinkedIn	General public	2.342	https://www.linkedin.com/posts/envipronment-park_so-what-newsletter-4-activity-6666650224959729664-gMmk
Website blog post	FAEN	News	1-June	web	General public		http://www.faen.es/primera-reunion-del-proyecto-h2020-so-what/
Website blog pos	FAEN	News	31-October	web	General public		http://www.faen.es/visita-instalaciones-ence/
Social media	FAEN	Survey	27-November	Twitter	General public	1,635 Followers	https://twitter.com/FundacionFaen/status/1199632727622004736
Website blog pos	FAEN	Website blog pos	December 2019	web	General public		http://www.faen.es/reunion-proyecto-so-what/
Social media	FAEN	Notice	April	WEb	General public		http://www.faen.es/event/reunion-telematica-sowhat/
Social media	FAEN	General post	2-July	Linkedin	General public	279	https://www.linkedin.com/posts/fundacionfaen_project-activity-6684151246724579328-flyP
Social media	FAEN	General post	June 2020	Linkedin	General public	279	https://www.linkedin.com/posts/fundacionfaen_requirements-for-data-formats-and-indicatorspdf-activity-6678987442919419904-lpaU
Social media	FAEN	General post	May 2020	Linkedin	General public	279	https://www.linkedin.com/posts/fundacionfaen_homepage-activity-6677162317316190209-2uj3
Social media	FAEN	General post	May 2020	Linkedin	General public	279	https://www.linkedin.com/feed/update/urn%3Ali%3Aactivity%3A6671329217881477120/?actorCompanyId=19183511

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Social media	FAEN	General post	May 2020	Linkedin	General public	279	https://www.linkedin.com/posts/fundacionfaen_the-involvement-of-the-so-what-project-partners-activity-6669213096243957760-mE_e
Social media	FAEN	Survey	December 10, 2019	Twitter	General public	1,635 Followers	https://twitter.com/FundacionFaen/status/1204319585979293696
Social media	FAEN	General post	July 2020	Linkedin	General public	279	https://www.linkedin.com/posts/fundacionfaen_requirements-for-data-formats-and-indicatorspdf-activity-6678987442919419904-lpaU
Social media	FAEN	General post	August 2020	Linkedin	General public	279	https://www.linkedin.com/posts/fundacionfaen_documents-activity-6691631220377300993-Zsyx
Post on the website	FAEN	General post	November 2019		General public		http://www.faen.es/event/visita-ence/
Post on the website	FAEN	General post	December 2019		General public		http://www.faen.es/event/reunion-proyecto-so-what/
Post on the website	FAEN	General post	April 2020		General public		http://www.faen.es/event/reunion-telematica-sowhat/
Social media	FAEN	Newsletter	September 2020	LinkedIn	General public	312	https://www.linkedin.com/posts/fundacionfaen_so-what-newsletter-5-activity-6706482985350246400-llP0
Social media	FAEN	EU Web awards	August 2020	LinkedIn	General public	312	https://www.linkedin.com/posts/fundacionfaen_2020-eu-web-awards-activity-6696731254022258688-S4V2
Social media	FAEN	Share general post	August 2020	LinkedIn	General public	350	https://www.linkedin.com/posts/fundacionfaen_whc-heatwaste-coldwaste-activity-6704728375547699200-xtJf
Social media	FAEN	Share general post	August 2020	LinkedIn	General public	350	https://www.linkedin.com/posts/fundacionfaen_sowhat-demo-sites-activity-6701424775685795840-7WFj
Social media	FAEN	Share general post	August 2020	LinkedIn	General public	350	https://www.linkedin.com/posts/fundacionfaen_two-papers-presented-at-the-rankine-2020-activity-6699960076674846721-KOok
Post on the website	IES			IES Website			https://www.iesve.com/research/intelligent-communities/so-what
Post on the website	IVL	So What develops tools to	December 2019	IVL website	General audience	7600	https://www.ivl.se/english/startpage/pages/ongoing-research/research-projects/climate-and-energy/so-what-develops-tools-to-take-advantage-of-unutilized-heat-and-cooling-flows.html

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		take advantage of unutilized heat and cooling flows					
Social media post	IVL	General post	July 2020	LinkedIn	General audience	500	https://www.linkedin.com/posts/nilssonan_spillv%C3%A4rme-i-europa-unik-inblick-i-industriernas-activity-6684083145584840704-pSb8
Social media post	IVL	General post	July 2020	LinkedIn	General audience	500	https://www.linkedin.com/posts/nilssonan_energysystemintegrationstrategypdf-activity-6690911154673373184-pCbB
Press release	IVL	Waste heat in Europe – unique insight into the way industries are thinking	July 2020	IVL website	General audience	12,000 (redistributed by 5 industry magazines)	https://www.ivl.se/english/startpage/top-menu/pressroom/press-releases/press-releases---arkiv/2020-07-02-waste-heat-in-europe---unique-insight-into-the-way-industries-are-thinking.html
Post on social media	LIPOR (CEO Fernando Leite)	Lipor as demo site	September 2020	LinkedIn	General public	500	https://www.linkedin.com/posts/fernando-leite-15830812_sowhat-demo-sites-activity-6714879772922548224-746f
Post on social media	LIPOR	Lipor as demo site	September 2020	LinkedIn	General public	7088	https://www.linkedin.com/posts/liporoficial_sowhat-demo-sites-activity-6711694442497089537-JQXN
Post on the website	MEDGREEN						http://www.medgreen.eu/en/proiecte.php
News	RADET	Ziuaconstanta magazine	April 13, 2020	Ziua de Constanta	Local public		https://www.ziuaconstanta.ro/informatii/radet/are-ca-scop-dezvoltarea-si-validarea-unei-platforme-software-integrate-radet-implementeaza-proiectul-european-sowhat-717133.html

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News	RADET	Ziare live magazine	April 13, 2020	Ziare Live	Local public		https://www.ziarelive.ro/stiri/are-ca-scop-dezvoltarea-si-validarea-unei-platforme-software-integrate-radet-implementeaza-proiectul-european-sowhat.html
Social media	RINA	Kick off	5-June	Twitter	General public	1,560 followers	https://twitter.com/RINA1861/status/1136249033691938817
Social media	RINA	Project coordinators	5-June	Twitter	General public	1,560 followers	https://twitter.com/RINA1861/status/1164173418054455298
Case study on website	RINA	Case study		RINA Website	General public	65 views	https://www.rina.org/en/media/CaseStudies/so-what
Presence at fair	RINA	EUSEW 2019	19-06-2019	Brussels	Research, General public and policy makers	100	
Internal promotion	RINA	Research Symposium	19-07-2019	Milan	Employees	100	
Social media	RINA	Case study	July 9, 2020	Twitter	General public	1750 followers	https://twitter.com/RINA1861/status/1281585849579307008
News on a paper	RINA	Barriers to data collection	June 2020	Energy Efficiency	Energy stakeholders		
Social media	RINA	Case study	July 9, 2020	Twitter	General public	1750 followers	https://twitter.com/RINA1861/status/1303318568709361664
Social media	RINA	Case study	September 2020	Twitter	All	1859 followers	https://twitter.com/RINA1861/status/1303318568709361664
Social media	SIE	First Workshop - design thinking	25-November	Twitter	General public	437 followers	https://twitter.com/SustainableInnE/status/1198935189679935491
Social media	SIE	World Cities Day	31-October	Twitter	General public	437 followers	https://twitter.com/SustainableInnE/status/1189828593263824904
Social media	SIE	Article	10-June	Twitter	General public	437 followers	https://twitter.com/SustainableInnE/status/1138064062045138944

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Social media	SIE	Post about exploitation workshop	May 2020	LinkedIn	General public	4300 followers	https://www.linkedin.com/posts/sustainable-innovations-europe_exploitation-workshop-energyefficiency-activity-6665492660364685313-Rv1w
Social media	SIE	Post about exploitation workshop	May 2020	Twitter	General public	526 followers	https://twitter.com/SustainableInnE/status/1259727655609475073
Social media	SIE	Post about M12 meeting	April 2020	Twitter	General public	526 followers	https://twitter.com/SustainableInnE/status/1251034475238219776
Social media	SIE	Post about M12 meeting	April 2020	LinkedIn	General public	4300 followers	https://www.linkedin.com/posts/sustainable-innovations-europe_covid19-communication-dissemination-activity-6656798921148510208-8sMX
Social media	SIE	Post about CO_2 reduction	June 2020	Twitter	General public	526 followers	https://twitter.com/SustainableInnE/status/1271022149227118592
Social media	SIE	Post about CO_2 reduction	June 2020	LinkedIn	General public	4300 followers	https://www.linkedin.com/posts/sustainable-innovations-europe_innovation-management-activity-6676786776545210368-FWx1
Social media	SIE	World Energy Efficiency Day	March 5, 2020	Twitter	General public	526 followers	https://twitter.com/SustainableInnE/status/1235475486941368320
Social media	SIE	First meeting in Antwerp	December 2019	Twitter	General public	437 followers	https://twitter.com/SustainableInnE/status/1204336027114061824
Social media	SIE	Day for CO_2 reduction	January 2020	Twitter	General public	437 followers	https://twitter.com/SustainableInnE/status/1222161987871920129
Social media	SIE	Post about SDGs	July 2020	Twitter	General public	534 followers	https://twitter.com/SustainableInnE/status/1287993777446166530
Social media	SIE	World population day	July 2020	Twitter	General public	534 followers	https://twitter.com/SustainableInnE/status/1281861060664995841

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Social media	SIE	Post about the team	August 2020	LinkedIn	General public	4300 followers	https://www.linkedin.com/posts/sustainable-innovations-europe_innovation-consulting-sustainable-innovations-activity-6698839876516757504-gtKw
Social media	SIE	Post about the team	August 2020	Twitter	General public	534 followers	https://twitter.com/SustainableInnE/status/1293074736348631041
Social media	UoB (Adriano Sciacovelli)	Survey	26-November	Twitter	General public	107 Followers	https://twitter.com/Sciacovelli_UoB/status/1199391471952158720
Social media	UoB (Adriano Sciacovelli)	Survey	6-June	Twitter	General public	107 Followers	https://twitter.com/Sciacovelli_UoB/status/1136678943585656832
Presentation	UoB (Adriano Sciacovelli)	Presentation of paper in a conference - Latent Heat And Thermochemical Storage As Enablers For Waste Heat-to-Power And Heat-Upgrade: A General Approach	30 July 2020	Rankine 2020 Conference	Cooling and heating stakeholders		
Presentation	UoB (Giovanni Manente)	Presentation of paper in a conference - Latent Heat And	28 July 2020	Rankine 2020 Conference	Cooling and heating stakeholders		

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		Thermochemical Storage As Enablers For Waste Heat-to-Power And Heat-Upgrade: A General Approach					
Social media	UoB (Adriano Sciacovelli)	Share a post	July 2020	LinkedIn	General public	403 contacts	https://www.linkedin.com/feed/update/urn%3Ali%3Aactivity%3A6678735811736944640/?actorCompanyId=19183511
Social media	UoB (Adriano Sciacovelli)	Share a post	July 2020	LinkedIn	General public	403 contacts	https://www.linkedin.com/posts/adriano-sciacovelli-82852b135_programme-activity-6684863685418074112-BJ-p
Social media	UoB (Adriano Sciacovelli)	Share a post	July 2020	Twitter	General public	167 followers	https://twitter.com/Sciacovelli_UoB/status/1281121500188364800
Social media	UoB (Adriano Sciacovelli)	Share a post	June 2020	LinkedIn	General public	404 connections	https://www.linkedin.com/posts/adriano-sciacovelli-82852b135_so-what-partners-activity-6671066089859887105-bL-b
Social media	UoB (Adriano Sciacovelli)	Share a post	May 2020	LinkedIn	General public	404 connections	https://www.linkedin.com/posts/adriano-sciacovelli-82852b135_exploitation-ipr-exploitation-activity-6664613980448923648-cedR
Social media	UoB (Adriano Sciacovelli)	Share a post	April 2020	LinkedIn	General public	404 connections	https://www.linkedin.com/posts/adriano-sciacovelli-82852b135_whc-energyefficiency-energyrecovery-activity-6656270156437815296-Rndq

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Social media	UoB (Adriano Sciacovelli)	Share a post	April 2020	LinkedIn	General public	404 connections	https://www.linkedin.com/posts/adriano-sciacovelli-82852b135_whc-recovery-storage-renewable-technologies-activity-6651408101247455234-y1AI
Social media	UoB (Adriano Sciacovelli)	Share a post	March 2020	LinkedIn	General public	404 connections	https://www.linkedin.com/posts/adriano-sciacovelli-82852b135_so-what-newsletter-3-activity-6638428857504534528-YrSE
Social media	UoB (Adriano Sciacovelli)	Share a post	febrero 2020	LinkedIn	General public	404 connections	https://www.linkedin.com/posts/adriano-sciacovelli-82852b135_documents-activity-6633263396311699456-GPRj
Social media	UoB (Adriano Sciacovelli)	Share a post	January 2020	LinkedIn	General public	404 connections	https://www.linkedin.com/posts/adriano-sciacovelli-82852b135_so-what-project-activity-6622505367140216833-4Rlg
Social media	UoB (Adriano Sciacovelli)	Share a post	August 2020	LinkedIn	General public	416 connections	https://www.linkedin.com/feed/update/urn%3Ali%3Aactivity%3A6684863685418074112/?actorCompanyId=19183511
Social media	UoB (Adriano Sciacovelli)	Share a post	August 2020	LinkedIn	General public	416 connections	https://www.linkedin.com/posts/adriano-sciacovelli-82852b135_two-papers-presented-at-the-rankine-2020-activity-6698945190645796864-6OAg
Social media	UoB (Adriano Sciacovelli)	Share a post	August 2020	LinkedIn	General public	416 connections	https://www.linkedin.com/posts/adriano-sciacovelli-82852b135_two-papers-presented-at-the-rankine-2020-activity-6698945190645796864-6OAg
Presentation	UoB (Adriano Sciacovelli)	Presentation of paper in a conference	28 October	Sustainable Places	Energy efficiency stakeholders	Presentation	https://sowhatproject.eu/2020/11/06/so-what-at-sustainable-places/
Media publication	SIE	Webinar	4 November	Cordis News	H2020 stakeholders	Press release	https://cordis.europa.eu/article/id/422661-so-what-emb3rs-incubis-and-s-parcs-to-host-webinar-on-industrial-waste-heat-recovery

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Media publication	SIE	Webinar	3 November	Buildup	H2020 stakeholders	Press release	https://www.buildup.eu/sites/default/files/content/press_release_so_what_hosts_webinar_with_related_projects.pdf
Media publication	SIE	Webinar	3 November	Alpha Galileo	H2020 stakeholders	Press release	https://www.alphagalileo.org/en-gb/Item-Display/ItemId/200644?returnurl=https://www.alphagalileo.org/en-gb/Item-Display/ItemId/200644
Blog post	SIE/RINA	Webinar	11 November	EMB3Rs website	H2020 stakeholders	Press release	https://www.emb3rs.eu/emb3rs-incubis-r-aces-so-what-and-s-parcs-to-host-webinar-on-industrial-waste-heat-recovery/
Blog post	SIE/RINA	Webinar	10 November	R-ACES website	H2020 stakeholders	Press release	https://r-aces.eu/2020/11/10/effective-energy-exchange-in-industrial-clusters-across-europe-duplicate-1-2/
Blog post	SIE/RINA	Webinar	5 November	S-PARCS website	H2020 stakeholders	Press release	https://www.sparcs-h2020.eu/joint-webinar-on-energy-cooperation-and-waste-heat-recovery/
Blog post	SIE/RINA	Webinar	November	Institute for Sustainable Process Technology	H2020 stakeholders	Press release	https://ispt.eu/events/waste-heat-recovery-and-energy-cooperation-in-european-industries/
Blog post	SIE/RINA	Webinar	November-2020	Eyde Cluster	H2020 stakeholders	Press release	https://www.eydecluster.com/no/kalender/2020/incubis-webinar/
Blog post	SIE/RINA	Webinar	November-2020	Eyde Cluster	H2020 stakeholders	Press release	https://www.prosin.no/calendar/incubis-waste-heat-recovery-and-energy-cooperation-in-european-industries/

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