



**PROJECT:**

**ΣIDERWIN**

**Deliverable:**

**D8.6**

**Title:**

**Dissemination and Communication Actions Survey**

Date: 31<sup>st</sup> March 2023

Version: 1.0

Website: <https://www.SIDERWIN-spire.eu/>

## D8.6 Dissemination and Communication Actions Survey

### Status

☒ Final

☐ In Progress. Please explain: ☐ Iterative Process – This year's results have been 100% achieved.  
☐ Delay – This year's results were not fully achieved.

### Tracking Changes

First Draft	0.1	First Draft (M66) by Tecnalia
Second Draft	0.2	Integration of partner's feedback
Initial Version	1.0	Issue to EC (M66)

### Level of Dissemination

☐ Confidential

☒ Public

### Author(s)

	Partner name	Name of the author
Main Author	<b>TECNALIA</b>	<b>MONICA SERNA RUIZ</b>

## Table of Contents

<b>EXECUTIVE SUMMARY.....</b>	<b>1</b>
<b>1 INTRODUCTION.....</b>	<b>2</b>
<b>2 SCOPE AND OBJECTIVES OF THIS DELIVERABLE.....</b>	<b>5</b>
<b>3 DISSEMINATION AND COMMUNICATION PLAN.....</b>	<b>6</b>
3.1 DISSEMINATION GOAL AND STRATEGY.....	6
3.2 SUBJECT OF DISSEMINATION .....	6
3.3 TIMING OF DISSEMINATION .....	6
3.4 TARGET AUDIENCE.....	7
3.5 DISSEMINATION TOOLS AND CHANNELS.....	9
3.5.1 <i>ΣIDERWIN Website</i> .....	9
3.5.2 <i>Social networks</i> .....	9
3.5.3 <i>Visual Identity and dissemination material</i> .....	9
3.5.4 <i>Special Interest Group (SIG)</i> .....	10
3.5.5 <i>Channels offered by the European Commission and SPIRE</i> .....	10
3.5.6 <i>National and European technology platforms and associations</i> .....	11
3.5.7 <i>Scientific and trade journals</i> .....	11
3.5.8 <i>National and international conferences</i> .....	12
3.5.9 <i>Workshops and trade fairs</i> .....	12
3.5.10 <i>Media and social media coverage</i> .....	12
3.5.11 <i>ΣIDERWIN workshop</i> .....	12
3.5.12 <i>Other activities</i> .....	12
3.6 DISSEMINATION MANAGEMENT .....	18
3.6.1 <i>Distribution of responsibilities</i> .....	18
3.6.2 <i>Dissemination policy and rules</i> .....	18
3.6.3 <i>Dissemination activities planning and follow-up</i> .....	20
3.6.4 <i>Evaluation and assessment</i> .....	20
<b>4 ACTIVITIES PERFORMED DURING THE PROJECT .....</b>	<b>23</b>
4.1 DESIGN OF THE ΣIDERWIN LOGO AND VISUAL IDENTITY.....	23
4.2 IMPLEMENTATION AND UPDATE OF THE ΣIDERWIN WEB PAGE .....	23
4.3 ΣIDERWIN AT SOCIAL NETWORKS .....	27
4.4 PROJECT ROLL-UP POSTER.....	36
4.5 PREPARATION OF DISSEMINATION MATERIAL .....	36
4.6 CREATION AND MANAGEMENT OF THE SPECIAL INTEREST GROUP (SIG) .....	38
4.7 NEWSLETTERS .....	39
4.8 PUBLICATIONS IN SCIENTIFIC AND TRADE JOURNALS .....	40
4.9 PRESENTATIONS AT NATIONAL AND INTERNATIONAL SCIENTIFIC CONFERENCES .....	40
4.10 EVENTS .....	41
4.11 WEBINARS .....	43

## D8.6 Dissemination and Communication Actions Survey

4.12 PARTICIPATION AT EXHIBITIONS, FAIRS, AND WORKSHOPS .....	45
4.13 OTHER ACTIVITIES .....	46
4.14 KPIS PERFORMANCE AND EVALUATION .....	47
<b>5 CONCLUSIONS.....</b>	<b>49</b>
<b>REFERENCES.....</b>	<b>51</b>
<b>ANNEX I: TECHNOLOGICAL PLATFORMS AND ASSOCIATIONS WITH INVOLVEMENT OF ΣIDERWIN PARTNERS.....</b>	<b>52</b>
<b>ANNEX II: ΣIDERWIN VIDEOS.....</b>	<b>58</b>
<b>ANNEX III: ΣIDERWIN NEWSLETTERS .....</b>	<b>60</b>

## D8.6 Dissemination and Communication Actions Survey

### List of figures

FIGURE 1. ΣIDERWIN ROUTE .....	2
FIGURE 2. SYNERGIES BETWEEN THE STEEL INDUSTRY AND OTHER EUROPEAN INDUSTRIES THANKS TO ΣIDERWIN TECHNOLOGY .....	7
FIGURE 3. D&C INTERNAL EVALUATION QUESTIONNAIRE .....	22
FIGURE 4. A) MAIN ΣIDERWIN LOGO; B) SHORT ΣIDERWIN LOGO .....	23
FIGURE 5. SCREENSHOT OF ΣIDERWIN UPDATED HOMEPAGE AND FOOTER .....	24
FIGURE 6. USERS' EVOLUTION TO ΣIDERWIN WEBSITE (1 <sup>ST</sup> OCTOBER 2017- 31 <sup>ST</sup> MARCH 2023) .....	25
FIGURE 7. TRAFFIC IN ΣIDERWIN WEBSITE .....	26
FIGURE 8. MOST VISITED PAGES OF ΣIDERWIN WEBSITE .....	26
FIGURE 9. ΣIDERWIN WEBSITE USERS BY COUNTRY .....	27
FIGURE 10. ΣIDERWIN TWITTER ACCOUNT AND LINKEDIN PROFILE .....	27
FIGURE 11. ΣIDERWIN TWITTER ACTIVITY REGISTER AND TOP TWEETS (OCT 2017 TO MARCH 2023) .....	35
FIGURE 12 TWO PICTURES OF SIDERWIN ROLL-UP POSTER AT TECNALIA MAIN HALL .....	36
FIGURE 13. ΣIDERWIN SIG REGISTRATION FORM .....	39
FIGURE 14. ΣIDERWIN SIG DISTRIBUTION M66 (46 MEMBERS) .....	39
FIGURE 15. COVER PAGE OF DOCTORAL THESIS OF DANIELA V. LOPES .....	42
FIGURE 16. VISIT OF THE EUROPEAN INVESTMENT BANK TO THE SIDERWIN BUILDING .....	42
FIGURE 17. VISIT OF A POLITICAL COMMISSION FROM MOSELLE (FR) TO THE SIDERWIN BUILDING .....	43
FIGURE 18. FIRST ΣIDERWIN WEBINAR AGENDA (2021/11/24) .....	44
FIGURE 19. ΣIDERWIN CONCLUDING WEBINAR AGENDA (2023/03/23) .....	44
FIGURE 20. COVER SLIDE OF NTUA VIDEO FOR HYDROMETEC 2021 .....	45
FIGURE 21. INTERNATIONAL CONGRESS AND EXPO STEEL TECH 2021 .....	46
FIGURE 22. THE CHEMICAL ENGINEERING FEATURE - ELECTROCHEMISTRY FOR GREENER STEEL (FEBRUARY 2023) .....	46
FIGURE 23. INDUSTRY DECARBONIZATION NEWSLETTER BY HANNO BÖCK (MARCH 2023) .....	47
FIGURE 24. SOME SCREENSHOTS OF FIRST ΣIDERWIN VIDEO WITH SUBTITLES .....	58
FIGURE 25. JOHN COCKERILL AWARDS 2020 TO ΣIDERWIN .....	58
FIGURE 26. ΣIDERWIN PILOT PLANT BUILDING ERECTION .....	58
FIGURE 27. SOME SCREENSHOTS OF NTUA VIDEO FOR HYDROMETEC LEARNING COURSE .....	58
FIGURE 28. ΣIDERWIN WEBINAR 2021/11/24 .....	59
FIGURE 29. ΣIDERWIN FULL-SIZE PILOT INSTALLATION TIME-LAPSE VIDEO .....	59
FIGURE 30. ΣIDERWIN WEBINAR 2023/03/23 .....	59
FIGURE 31. ΣIDERWIN NEWSLETTERS FRONT PAGES .....	60

## D8.6 Dissemination and Communication Actions Survey

### List of tables

TABLE 1. SCIENTIFIC AND TRADE JOURNALS .....	13
TABLE 2. NATIONAL AND INTERNATIONAL CONFERENCES .....	15
TABLE 3. EVENTS (WORKSHOPS AND FAIRS).....	17
TABLE 4. KEY PERFORMANCE INDICATORS WITH METRICS AND NUMERICAL TARGETS FOR THE EVALUATION OF THE DISSEMINATION ACTIVITIES .....	21
TABLE 5. LIST OF PUBLIC DELIVERABLES PRODUCED BY THE ΣIDERWIN CONSORTIUM .....	38
TABLE 6. LIST OF PUBLICATIONS PLANNED DURING THE PROJECT AND THEIR STATUS .....	40
TABLE 7. LIST OF NATIONAL AND INTERNATIONAL CONFERENCES IDENTIFIED FOR COMING MONTHS.....	41
TABLE 8. LIST OF EVENTS .....	41
TABLE 9. KEY PERFORMANCE INDICATORS AND METRICS FOR THE EVALUATION OF THE DISSEMINATION ACTIVITIES, REAL VALUES FOR M18, M36, M54 AND M66, TARGET VALUES FOR FINAL STAGE (M55-M66) AND VALUES FROM M1 TO M66.....	48

### Executive summary

This document corresponds to the last deliverable of WP8 related to the “Communication and Dissemination” task of the European Commission funded project ΣIDERWIN (Grant Agreement no. 768788, under the H2020 framework and the SPIRE initiative).

The deliverable D.8.6 includes an overview of the dissemination activities carried out during the project life. It is associated with Task 8.1 Communication and dissemination actions, and it is under the responsibility of TECNALIA.

The deliverable aims at describing the Dissemination and Communication Plan of ΣIDERWIN project. The plan serves to disseminate and outreach the project results. The dissemination activities are mostly focused on the description of the project’s goals, the explanation of how it is planned to attain them, the forecast results and expected benefits.

The proper dissemination and communication are keys in order to ensure the maximum impact of the ΣIDERWIN project. The main goal of the planned dissemination activities is to increase the visibility of ΣIDERWIN on selected communities and target groups, at both European and International level, to promote the implementation and use of the project results (exploitation), always considering confidentiality and IPR protection aspects. All partners of the consortium have contributed to the ΣIDERWIN dissemination, according to their foreseen role and effort, and using all available tools and channels.

This deliverable outlines the ΣIDERWIN dissemination strategy in terms of identification and description of the dissemination key elements:

- the objectives of the dissemination (why, mission & vision),
- the topics of the dissemination (what),
- the target audience (to whom),
- the timing (when),
- the dissemination tools and channels (how to reach the target audience),
- the responsible for the dissemination (who),
- the rules for performing the dissemination activities,
- the way to evaluate and assess the impact of the dissemination activities.

An overview of the dissemination activities carried out during the whole project. The monitoring of them has been a continuous process along the project and its evaluation has been done by the measurement of the metrics defined for five Key Performance Indicators (KPIs):

- KPI1 - Awareness through the website and social media,
- KPI2 - Awareness of the Scientific Community interest,
- KPI3 - Awareness of the Industrial Community interest,
- KPI4 - ΣIDERWIN concluding webinar
- KPI5 – First ΣIDERWIN webinar.

## 1 Introduction

European Union countries have agreed on a 2030 Framework for climate and energy, including EU-wide targets and policy objectives for the period between 2020 and 2030. These targets aim to help the EU achieve a more competitive, secure, and sustainable energy system and to meet its long-term 2050 greenhouse gas (GHG) reductions target [ 1 ].

The targets established for 2030 are:

- a 40% cut in GHG emissions compared to 1990 levels,
- at least a 27% share of renewable energy consumption,
- at least 27% energy savings compared with the business-as-usual scenario.

Nowadays, there are no economically feasible steelmaking technologies available having the potential to meet the EU's climate and energy targets for 2030. At best, a 15% decrease in the overall CO<sub>2</sub> intensity of the sector could be achieved throughout the widespread dissemination of technologies that could reasonably become cost-effective in the future. Therefore, breakthrough technologies are urgent and indispensable.

With this in mind, ΣIDERWIN project proposed to develop a breakthrough innovation compared to the actual steel production process bringing together steel making with electrochemical process. The electrolysis process using renewable energies will transform any iron oxide, including those inside the by-products from other metallurgies, into steel plates with a significant reduction of energy use. This process decomposes under mild conditions but at intense reaction rate naturally occurring iron oxides, such as hematite, into iron metal and oxygen gas. By offering a low CO<sub>2</sub> emissions steel production process, the project will contribute to the reduction of the total greenhouse gas (GHG) emissions.

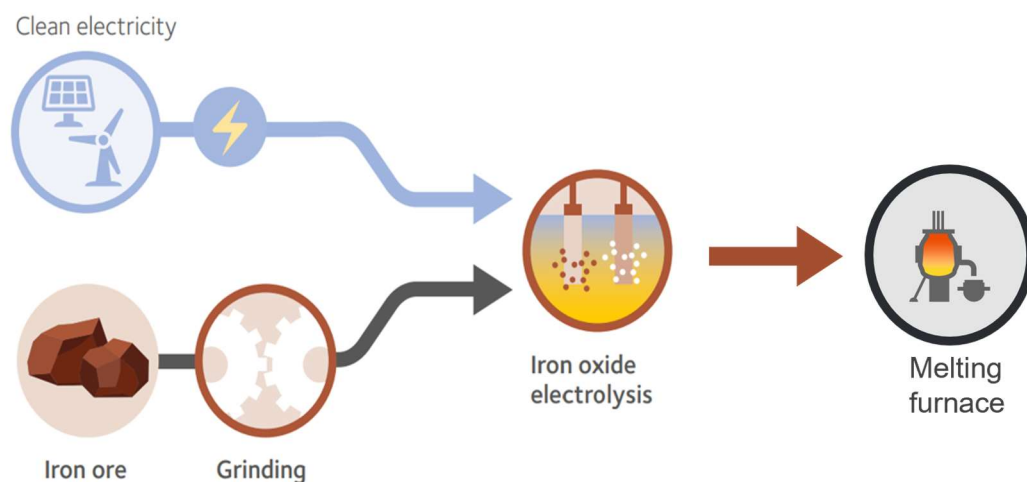


Figure 1. ΣIDERWIN route



The technology developed within the framework of ΣIDERWIN project can provide *environmental benefits* to reach the targets established by the EU, compared to traditional steelmaking plants, such as:

- a reduction of the carbon footprint by 60-74% depending on the electricity mix [ 2 ],
- a reduction by 20% of the direct energy use [ 3 ],
- the ability to produce steel from by-products rich in iron oxides from non-ferrous metallurgy residues,
- an increased integration with renewable energies with a more flexible process,
- oxygen as by-product.

ΣIDERWIN project is focused on:

- the development of an electrochemical processing route for primary steel production,
- an industrially feasible new processing route,
- an iron metal production from renewable energy,
- raw material efficiency during steel production,
- close to market research.

The following main results and key messages summarised the conclusions of the work developed during the ΣIDERWIN project:

- ΣIDERWIN technology has been scaled up:
  - a cathode size up to 1.25 m<sup>2</sup> is feasible,
  - the gas management is the key,
  - electrolyte flow uniformity is required,
  - electrolysis cell energy use has been confirmed at pilot scale.
- ΣIDERWIN technology can contribute to future carbon neutral steelmaking because:
  - there are almost no direct CO<sub>2</sub> emissions,
  - it reduces the carbon footprint by a 60% compared to traditional Blast Furnace – Blast Oxygen Furnace (BF - BOF) route,
  - it does not compromise the environmental footprint compared to BF-BOF route.
- ΣIDERWIN technology can contribute to the balance of the power system because:
  - it is a fully electrified primary production,
  - the European power system can meet the additional ΣIDERWIN demand with carbon-free means,
  - it is a flexible process at low temperature,
  - the Demand Side Response (DSR) can boost its profitability,
  - ΣIDERWIN technology can contribute to the deployment of Renewable Energy Sources (RES).
- ΣIDERWIN technology can contribute to circular economy:
  - several potential alternatives have been studied: steel industry, aluminium industry, from nickel purification, from copper and ferronickel production,
  - mill scales from steel industry were the most promising alternative material at this stage of the technology development,

## D8.6 Dissemination and Communication Actions Survey

- other all alternatives were promising from lab scale studies, but more work must be done before their scaling-up.

Dissemination and communication of project results (both within and beyond the project's own community) are key activities in order to ensure the maximum impact of the ΣIDERWIN project and facilitate the exploitation activities.

This document is organised in the following sections:

- Section 1: introduces the main goals and features of the project.
- Section 2: contains the information about the scope and objectives of this deliverable.
- Section 3: presents the Dissemination and Communication Plan, illustrating the objectives of the dissemination and the main elements of the dissemination strategy (subject, timing, target audience, tools and channels and the dissemination management policy).
- Section 4: presents the activities carried out during the project.
- Section 5: presents the conclusions of the document.
- Annex I: presents the Technological Platforms and Associations with involvement of ΣIDERWIN partners.
- Annex II: presents some screenshots of ΣIDERWIN videos.
- Annex III: includes the front page of the eight issues of the Newsletter.

## 2 Scope and objectives of this deliverable

This deliverable D8.6 of WP8 of the ΣIDERWIN project is associated to Task 8.1. Communication and Dissemination activities. It is related to the other deliverable D8.2 and its updates regarding the dissemination and communication plan previously submitted:

- The first deliverable D8.2 was focused on the definition of the ΣIDERWIN dissemination strategy and the planning of the actions for the first 18 months of the project.
- The second deliverable D8.2.1 included a description of the dissemination and communication activities performed in the first 18 months of the project and the action plan for the next 18 months of the project.
- The third deliverable D8.2.2 included a description of the dissemination and communication activities performed from month 19 to month 36 and the action plan for the next 18 months of the project.
- The fourth deliverable D8.2.3 included a description of the dissemination and communication activities performed from month 36 to month 54 of the project and the action plan for the next 12 months of the project.
- The fifth deliverable D8.2.4 included a description of the dissemination and communication activities performed in the last 12 months of the project.

The aim of this document is to provide a survey of the dissemination and communication activities carried out throughout the ΣIDERWIN project.

This plan represents the strategic vision of the Consortium in terms of the dissemination of the ΣIDERWIN project itself, as well as its results and outputs. The main objective of the planned dissemination activities was to increase the visibility of ΣIDERWIN among selected communities and target groups, both at European and International level, in order to ensure the maximum impact of the project and to promote the exploitation of the project results.

This deliverable outlines the ΣIDERWIN dissemination strategy in terms of identification and description of the dissemination key elements:

- the objectives of the dissemination (mission, vision),
- the subjects of the dissemination (what will be disseminated),
- the timing of the dissemination (when dissemination will take place),
- the target audience (to whom it will be disseminated),
- the dissemination tools and channels (how it will be disseminated),
- the responsible for the dissemination (who will perform the dissemination),
- the rules for performing the dissemination activities,
- the way to evaluate and assess the impact of the dissemination activities.

### 3 Dissemination and Communication Plan

#### 3.1 Dissemination goal and strategy

The final goal of the dissemination and communication activities have been to promote the ΣIDERWIN project and spread the ΣIDERWIN's results to the largest possible concerned audience (at the national, European, and international level) to encourage the implementation and use of the project results (exploitation), always taking into account the confidentiality and IPR protection aspects.

In more detail, the objectives of the dissemination have been:

- to raise public awareness about the project, its expected results and progress within defined target groups,
- to disseminate the fundamental knowledge, the methodologies and technologies developed during the project,
- to exchange experience with projects and groups working in the field, to join efforts, minimize duplication and maximize potential,
- to pave the way for a successful (commercial and non-commercial) exploitation of the project outcomes.

The objective of the dissemination strategy has been to identify and organize properly the activities needed to achieve these objectives. The following sections describe the main pillars of the dissemination strategy: (i) subjects (what will be disseminated), (ii) target audience (who will most benefit from the project results and who would be interested in learning about the project findings), (iii) the timing (when dissemination will take place); (iv) tools and channels (how to reach the target audience), and (v) dissemination management and policy.

#### 3.2 Subject of Dissemination

The following general subjects of dissemination have been identified:

- ΣIDERWIN project itself: goals, approach, pilot plant, and expected benefits.
- The techniques and methodologies used for the technical development of the project in all the involved areas (simulation, modelling, monitoring, control, automation, optimization...).
- The sustainability indicators and Key Performance Indicators in the process industry.

#### 3.3 Timing of Dissemination

Dissemination activities have been planned in accordance with the stage of development in the project. Although several dissemination actions took place during the project, the most significant dissemination activities have taken place as final research results have been available. It is also important to consider that plant owners' investment decision might require extensive time, so timely communication on the project results can ease the successful commercialisation of the results.

The dissemination followed the **AIDA** principle: **A**wareness to attract the attention of the target audience, **I**nterest of the target audience, **D**esire of the target audience to know more about the project, and **A**ction to lead the target audience towards get involved in the project and to

promote its results to facilitate their exploitation. According to this principle, three phases were considered:

- Initial phase (**Awareness**) (month 1 – month 12): focused on increasing the visibility of the project and mobilizing stakeholders and multipliers. At this phase, the main activities were related to the implementation of the dissemination tools (website, social networks, visual identity), preparation of dissemination material, general presentations of the ΣIDERWIN project, and launching of the ΣIDERWIN Special Interest Group.
- Intermediate phase (**Interest/Desire**) (month 13 – month 36): focused on informing and engaging to the target stakeholders when preliminary results become available. At this phase, the project results and their future applications were presented in journals and conferences to specialized audience with the objective of stimulating the interaction with the concerned scientific and industrial community and determining the stakeholders' expectations.
- Final phase (**Action**) (month 37 – month 66): focused on encouraging further exploitation of the ΣIDERWIN outcomes (transfer to other industries, replicability...). At this phase, the results of the validation of the ΣIDERWIN approach at the pilot plant, and the transferability analysis were presented in journals, conferences, and industrial events. One of the main dissemination actions at this phase were the organization of the ΣIDERWIN concluding webinar at the end of the project, as it is explained later.

### 3.4 Target audience

Considering the goal of the ΣIDERWIN project, the target audience for the dissemination activities was divided in the following groups:

1. *Industrial Community*: raise awareness of and interest in the project results to promote the exploitation and co-operation opportunities.

ΣIDERWIN project addresses specifically the steel sector and the aluminium sector as providers of raw material within the circular economy approach, but other industrial sectors could also use the new technologies developed in the project to reduce the carbon emissions and residues and increase their competitiveness.

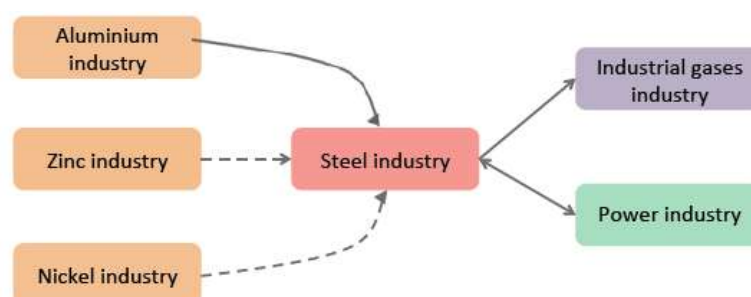


Figure 2. Synergies between the steel industry and other European industries thanks to ΣIDERWIN technology

The project has disseminated the results to business stakeholders to make them aware of the expected impact of the project and promote the exploitation of its results. So, from the exploitation side, the target audiences from the industrial community are:

## D8.6 Dissemination and Communication Actions Survey

- a. Steel industry: European Union is the second largest producer of steel in the world after China. Its output is over 136,2 million tonnes of steel a year in 2022, accounting for a 7% of global output [ 4 ] [ 5 ].
- b. Aluminium industry: The aluminium industry's presence spans across Europe, with a total of more than 600 plants in all 27 EU Member States, including alumina, metal supply (primary and recycling) and semis production (i.e. extrusion presses, rolling mills) [ 6 ].
- c. Other metallurgies where iron oxides are produced as by-products of their processes.
- d. Mining industry and particularly iron ore industry.
- e. Electricity producers from renewable energy sources.
- f. Oxygen gas producers.

The message for this audience has been:

"Increased economic competitiveness and reduced environmental impact due to a breakthrough production process by applying electrochemical method to steelmaking, reducing CO<sub>2</sub> emissions and direct use of energy. This will allow producing steel from by-products rich in iron oxides from non-ferrous metallurgy residues such as the aluminium industry allowing further processing of these by-products and increasing the integration with renewable energies by flexible and interruptible operation."

2. *Scientific Community* (universities and research centres): have enlarged the knowledge and facilitated the communication among European researchers in the research field of the ΣIDERWIN project (industrial process modelling, control and optimization, alternative raw material, techno-economic and environmental assessment).
3. *Financial Community*: financial instruments have a key point for investments in low carbon technologies. The project has disseminated the results to existing Public-Private Financial and Insurance schemes available for Energy Intensive Industries (i.e., Public funds, Private Equity Funds, Mezzanine) with the aim to promote the direct investments by innovative financial-insurance schemes.
4. *Policy makers*: raise awareness of the relevance and economic impact of exploited research results obtained by EU-funding (the European Commission's DG develops policies and actions for the re-industrialization of Europe and an innovative, modern, and sustainable economy). Dissemination among national and European decision-makers has been to encourage them to develop/support policies that promote the development and implantation of low carbon technologies as the technologies developed in ΣIDERWIN.
5. *"Internal" Community (ΣIDERWIN partners)*: Ensuring effective internal communication and dissemination among the consortium partners has been a key element for the development of the project, and also because some of the partners represent "influencers" due to their great position on the associated industrial sectors. Particularly, ΣIDERWIN consortium partners has comprised important market players in various segments, and this constitutes a natural channel for the dissemination of the project and its results to other potential users. Therefore, it was important to communicate information about the project and its results to partners' managers, consultants, and people responsible for their marketing and sales, and

to encourage them to share this information further to their customers and business partners.

6. *General public*: the goal has been that the audience could be aware of the general impacts of the project for the society in general (i.e., sustainability, environmental impact), and let them aware of the positive impacts generated and the relevance of the EU funded research industry.

Dissemination activities have been tailored in such a way to reach the audiences most efficiently through appropriately selected dissemination tools and channels.

### 3.5 Dissemination tools and channels

This section describes the main tools and channels that were implemented/used by the ΣIDERWIN partners for the dissemination of the project and its results. Some of the tools were of general purpose, while other ones were oriented to specific target groups.

#### 3.5.1 ΣIDERWIN Website

The ΣIDERWIN website (<https://www.SIDERWIN-spire.eu>) has been the main interface for communication with the public. It provides information on the objectives of the ΣIDERWIN project, the consortium, the proposed activities, and the foreseen/achieved results. It also provides access to the dissemination material and facilitates the interaction between partners and interested parties through the contact formulary. In order to maximize its visibility, free or low-cost methods have been used to improve its ranking in search engines. Wherever possible, links to the ΣIDERWIN site have also been established from the homepages of all the partners.

#### 3.5.2 Social networks

In order to reach a wide target audience and at the same time establish two-way communication channels, the presence of the ΣIDERWIN project on social media has been promoted. A Twitter account ([https://twitter.com/SIDERWIN\\_spire](https://twitter.com/SIDERWIN_spire)) is used as an instant dissemination tool to reach the general public. To reflect the project's relationship with the A.SPIRE community, @A.SPIRE references have been including in the ΣIDERWIN tweets whenever possible. On the other hand, a LinkedIn page (<https://www.linkedin.com/in/SIDERWIN-spire-15b185154/>) was used to reach out to stakeholders and industry professionals.

The website provides direct access to these social networks by clicking on the icons located on a visible part of the website. This makes it easy for any user to participate in these social networks when visiting the website.

Finally, YouTube has been used to publish videos produced during the project, where this does not conflict with intellectual property rights.

#### 3.5.3 Visual Identity and dissemination material

The visual identity (logo and style) of the project helped external audiences to easily identify ΣIDERWIN and contributed to the visibility of the project by providing a clear identity from the very beginning of the project. Communication and dissemination tools (such as project website, Twitter, LinkedIn page...), dissemination material (such as flyers, presentations, posters...), and deliverables applied the visual identity defined for the project.

Different dissemination material was produced throughout the project, such as:

- Project flyers (hardcopy and electronic version) to provide our audiences with an attractive and written project overview and summary of the main project objectives and results. Two flyers were scheduled in the project: one at the beginning of the project focused on the project's objectives and vision (<https://www.SIDERWIN-spire.eu/content/others>) and another at the end of the project highlighting the key results of the pilot plant. The flyers were able to be distributed in printed form (handed out at conferences or other events) and/or in electronic version (PDF file). The flyers are also available for download from the project website.
- Short Project presentations (electronic version) describing the objectives and the main achieved results for presenting the project in different forums, such as internal presentations inside of the partners, presentations at schools/universities, visits with clients, etc. These presentations are available for download from the website (<https://www.SIDERWIN-spire.eu/content/others>).
- Videos to communicate the project's vision, objectives, and results. Two videos were scheduled: one animation at start of the project (<https://youtu.be/0SG421hiKXA>) and one video focusing on the results at the pilot plant. These videos are accessible through the website and have been uploaded to the YouTube channel.

Finally, the deliverables also provide a good means of disseminating the activities carried out and results achieved. Public deliverables are accessible through the website, while confidential deliverables are used to disseminate knowledge within the partners' organizations.

### 3.5.4 Special Interest Group (SIG)

The "SIDERWIN Special Interest Group" was created at the beginning of the project to engage stakeholders with the SIDERWIN consortium. The SIG is an informal group of external stakeholders interested in the project (i.e., possible beneficiaries, end users...). Participation in this group was under accepted subscription, and it was managed through the website to ease the contact of the interest people/entities.

For this purpose, a specific section was available through the website vertical navigation bar where a form to be completed by people/entities interested in being part of the SIG was available. They received periodically via email a newsletter starting from May2019 with information about relevant news, events, and results of the project. There were 8 editions of the newsletter (May 2019, November 2019, April 2020, October 2020, March 2021, October 2021, March 2022, and March 2023). They were also informed of relevant events of the project, such as webinars.

The main interest of the Special Interest Group was to get feedback from experts outside the consortium about usability of SIDERWIN developments, market potential, and additional technologies that may improve or complement SIDERWIN.

### 3.5.5 Channels offered by the European Commission and SPIRE

The SIDERWIN consortium made use of the tools offered by the European Commission and A.SPIRE to maximize the diffusion of the project.



### *European Commission*

The EC offers different tools such as:

- The “projects and results” service from CORDIS that provided: (i) “project information” based on the project’s grant agreement, (ii) “report summaries” that came from the publishable summaries of periodic and final reports submitted by the project participants and approved by the project officer, and (iii) “Results in Brief” written by CORDIS science editors based on each report summary.
- CORDIS Wire to publish articles on the CORDIS News and Events service.
- research\*eu Results Magazine that features highlights from the most exciting EU-funded research and development projects.

### *A.SPIRE Processes4Planet*

A.SPIRE is the European Association which is committed to manage and implement the Processes4Planet co-programmed Partnership. It represents innovative process industries, 20% of the total European manufacturing sector, and more than 180 industrial and research process stakeholders from 20 countries spread throughout Europe. A.SPIRE brings together cement, ceramics, chemicals, engineering, minerals and ores, non-ferrous metals, pulp and paper, refining, steel and water sectors, several being world-leading sectors operating from Europe.

The mission of A.SPIRE is to ensure the development of enabling technologies and best practices along all the stages of large scale existing value chain productions that will contribute to a resource efficient process industry.

A.SPIRE’s offers different communication tools/channels for dissemination of project outputs such as:

- A dedicated page on the A.SPIRE website where information about all A.SPIRE projects and links to project-dedicated websites are published (<https://www.aspire2050.eu/sites/default/files/pressoffice/publication/Brochure-4.pdf>)
- A section of the A.SPIRE website, A.SPIRE Newsletter and Twitter account where project related announcements can be published.
- Annual projects brochure.
- A.SPIRE event (such as impact workshop, A.SPIRE projects’ conference, etc.).

### **3.5.6 National and European technology platforms and associations**

The connection of the ΣIDERWIN partners with several relevant national/European platforms and associations, closely related to the ΣIDERWIN objectives, provides a great opportunity to disseminate the project activities and increase the number of stakeholders reached. The Annex I provides information on some of these platforms and associations together with the nature of the partners’ involvement. An updated list of the platforms and associations in which the partners are involved was available in the ΣIDERWIN SharePoint.

### **3.5.7 Scientific and trade journals**

Scientific publications are an effective way of disseminating high-level project information and attracting the interest of representatives of the various target groups. Similarly, publications in

trade journals can attract the attention of potential beneficiaries of the ΣIDERWIN results. The industrial and academic partners individually and jointly, published and presented scientific advances in scientific journals (peer reviewed or not) and trade magazines, taking into account confidentiality and IPR protection aspects.

Table 1 provides some examples of scientific and trade journals in which the ΣIDERWIN partners submitted papers during the project.

### **3.5.8 National and international conferences**

National and international conferences are a good opportunity to share the results with experts in the field, and therefore, thus achieving an effective dissemination of the project.

Table 2 provides some examples of national and international conferences where the project and its results were presented.

### **3.5.9 Workshops and trade fairs**

Finally, the partners participated in workshops and large events such as trade fairs in order to disseminate both the techniques developed during the project and the results achieved to the target beneficiaries of the ΣIDERWIN project.

Table 3 provides some examples of events.

### **3.5.10 Media and social media coverage**

ΣIDERWIN news in the media (newspapers, magazines, radio...) informed the general public about the project and reflect the impact of EU research and innovation funding on European industry and the environment.

### **3.5.11 ΣIDERWIN workshop**

At the end of the project, the ΣIDERWIN concluding webinar was organized to present the results achieved and to give the opportunity to meet potential interested clients (either on public or private field), investors and researchers. The target audience included different players in the scientific, industrial, financial, and social fields, as well as journalists. The announcement of the ΣIDERWIN webinar was made through all the available channels (web, Twitter, LinkedIn, EU/A.SPIRE tools, related Platforms and Associations, etc.) in order to reach the largest possible audience.

### **3.5.12 Other activities**

Presentations of the project at the universities were mainly carried out by the academic partners, in order to promote the research fields of the ΣIDERWIN project.

Direct proactive communication with stakeholders during visits/meetings and internal meetings within the partners organizations helped to raise awareness of the goal/benefits of the project.

## D8.6 Dissemination and Communication Actions Survey

**Table 1. Scientific and trade journals**

Journal/Magazine Name	Type	Journal/Magazine topics	Indexed (Yes/No)	Other relevant information
Electrochimica Acta	Scientific	Analytical Electrochemistry; Bioelectrochemistry; Electrochemical Energy Conversion and Storage; Electrochemical Materials Science; Electrochemical Process Engineering and Technology; Molecular Electrochemistry Physical Electrochemistry	Yes	Q1 Chemical Engineering (Miscellaneous) – SJR 2020 1.53
Journal of the Electrochemical Society	Scientific	Energy storage and conversion; Corrosion; Electrodeposition; Electrocatalysis; Double layer phenomena; Sensors; Bioelectrochemistry; Electrochemical engineering; Electroanalytical chemistry	Yes	Q1 Condensed Matter Physics – SJR 2020 1.26
SIDENEWS	Trade	Technological field where new products, innovation in production processes and introduction of new technologies of companies in the steel sector	No	Managed by SIDEREX (the Spanish Association of Steelworks Exporters) whose main goals are to promote Spanish steel exports.
International Journal of Hydrogen Energy	Scientific	Original research, both analytical and experimental, covering all aspects of Hydrogen Energy, including production, storage, transmission, utilization, enabling technologies, environmental impact, economic and international aspects of hydrogen and hydrogen carriers such as NH <sub>3</sub> , CH <sub>4</sub> , alcohols, etc.	Yes	Q1 Condensed Matter Physics – SJR 2021 1.201
Symmetry	Scientific	International, peer-reviewed, open access journal covering research on symmetry/asymmetry phenomena wherever they occur in all aspects of natural sciences.	Yes	Q2 Multidisciplinary Sciences – SJR 2021 2.940

## D8.6 Dissemination and Communication Actions Survey

Journal/Magazine Name	Type	Journal/Magazine topics	Indexed (Yes/No)	Other relevant information
Frontiers in Energy Research	Scientific	Multidisciplinary journal that explores sustainable developments and technological advances in all fields of energy research to help produce reliable and affordable energy sources.	Yes	Q2 Economics and Econometrics – SJR 2021 0.71
Hydrometallurgy	Scientific	Compile studies on novel processes, process design, chemistry, modelling, control, economics and interfaces between unit operations, and to provide a forum for discussions on case histories and operational difficulties.	Yes	Q1 Industrial and Manufacturing Engineering – SJR 2021 0.8
Materials	Scientific	Materials provides a forum for publishing papers which advance the in-depth understanding of the relationship between the structure, the properties, or the functions of all kinds of materials. Chemical syntheses, chemical structures and mechanical, chemical, electronic, magnetic, and optical properties and various applications will be considered.	Yes	Q2 Condensed Matter Physics – SJR 2021 0.6
Johnson Matthey Technology Review Journal	Scientific	Science enabling cleaner air, good health and efficient use of natural resources. Areas of application and fundamental science will be considered in the fields of: Advanced materials, Catalysis, Characterisation, Electrochemistry, Emissions control, Fine and speciality chemicals, Historical, Industrial processes, Materials and metallurgy, Modelling, PGM and specialist metallurgy, Pharmaceutical and medical science, Surface chemistry and coatings, Sustainable technologies.	Yes	Q2 Metals and Alloys – SJR 2021 0.51

## D8.6 Dissemination and Communication Actions Survey

**Table 2. National and international conferences**

Conference Name	Scope	Conference topics	Type of audience	Organiser
Electroceramics Conference	International	Different aspects and themes of Electroceramics materials	Academics and industrial researchers, young scientists, and PhD students	Electroceramics Network
Panhellenic Conference on Metallic Materials	International	Innovative international research and developments in the science and technology of all types of metallic material systems	Academic, engineers and industry	University of Patras
MMME – International Conference on Mining, Material, and Metallurgical Engineering	International	Annual conference in fields related to mining, material and metallurgical engineering	Academics and industrial researchers, young scientists, and PhD students	International ASET Inc.
ESTAD – European Steel Technology and Application Days	International	Steelmaking, Rolling, Environmental and energy	Researchers and practitioners from equipment suppliers, plant manufacturers & steelmakers	ASMET, AIM, A3M, Steel Institute VDEh and Jernkontoret
Electrification Europe International Summit	International	Highlight solutions for a decarbonized future for Europe	Academics and industrial researchers, young scientists, and PhD students	EDF & Electric Power Research Institute (EPRI)
Industrial Efficiency	International	Industrial efficiency, accelerating decarbonisation	Academic, engineers and industry	European Council for an Energy Efficient Economy (eceee)
Electrochemical Society Meeting	International	Forum for sharing the latest scientific and technical developments in electrochemistry and solid state science and technology	Academics and industrial researchers, young scientists, and PhD students	ECS
Bauxite Residue Valorisation	International	Cover the whole chain of bauxite residue, from production to applications: From bauxite to a modified bauxite residue, Neutralisation, revegetation and beyond, Recovery of Fe, Al, Ti,	Academics and industrial researchers, young scientists, and PhD students	Redmud

## D8.6 Dissemination and Communication Actions Survey

Conference Name	Scope	Conference topics	Type of audience	Organiser
		Recovery of minor elements and REE, Cement, concrete and inorganic polymers, Ceramics, Other novel applications		
Meeting of Physical Chemistry	Portugal	Latest advances in Physical Chemistry, with special emphasis on the work developed by the national scientific community	Researchers from all areas of Physical Chemistry	University of Coimbra
International Conference on Raw Materials and Circular Economy	International	Wide range of technological developments and future challenges regarding Raw Materials with emphasis given on Circular Economy aspects	Academic community, engineers, early-stage scientists as well as senior scientists, industry executives, stakeholders and policy makers, and other professionals in the field of raw materials	Technical Chamber of Greece, the School of Mining and Metallurgical Engineering of the NTUA and the Greek Raw Materials Cluster
TMS Annual Meeting and Exhibition	International	Global minerals, metals, and materials fields for a comprehensive, cross-disciplinary exchange of technical knowledge	Engineers, scientists, business leaders, and other professionals in the minerals, metals, and materials fields	The Minerals, Metals & Materials Society (TMS)
International Conference on Nanomaterials Science and Mechanical Engineering	International	Modern Problems of Nanomaterials Science and Mechanical Engineering	Academics and industrial researchers, young scientists, and PhD students	University of Aveiro
Hydrogen Days 2023	International	Development and deployment in the energy sector. Development and deployment in transportation. Cross cutting and overarching issues	Commercial, scientific, research, and educational entities active in the field of advanced hydrogen and related technologies, investors, businesspeople, general public, and decision-makers interested in hydrogen technologies.	GUARANT International spol. s r.o.

## D8.6 Dissemination and Communication Actions Survey

**Table 3. Events (Workshops and Fairs)**

Fair/workshop Name	Scope	Event topics	Audience profile	Web	Organiser
Electrochemical Society Meetings	International	Solid-state and Electrochemical Science and Technology	Professionals, researchers, experts and students	<a href="https://www.electrochem.org/meetings/">https://www.electrochem.org/meetings/</a>	The Electrochemical Society
METEC – International metallurgical trade fair	International	Metallurgy; Steelmaking	Researchers and practitioners	<a href="http://www.metec-tradefair.com/">http://www.metec-tradefair.com/</a>	GIFA, METEC, THERMPROCESS and NEWCAST
European Steel Day	International	Promote industry's activity and discuss about the future challenges it faces	Professionals, researchers and experts	<a href="https://www.eurofer.eu/">https://www.eurofer.eu/</a>	EUROFER
Hydrometec	International	Primary and secondary raw materials and their treatments through hydrometallurgical processes to extract valuable metals and to promote circular economy in raw materials sectors.	Metallurgists, engineers and students	<a href="https://eitrawmaterials.eu/project/hydrometec/">https://eitrawmaterials.eu/project/hydrometec/</a>	EIT Raw Materials
Steel Tech Congress & Expo	International	A unique meeting point for knowledge transfer and to promote inter-sectoral relations and networking	Professionals, researchers, experts and students	<a href="https://steeltech.bilbaoexhibitionscentre.com/">https://steeltech.bilbaoexhibitionscentre.com/</a>	Steel Tech

### 3.6 Dissemination management

A special section in the ΣIDERWIN SharePoint was created for the management of the dissemination activities (planning, monitoring, storing dissemination material...).

#### 3.6.1 Distribution of responsibilities

According to the Article 29.1 of the Grant Agreement *“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)”*. Therefore, every possible opportunity was embraced, by individual partners or on collective basis through joint appearance by more than one partner, to make ΣIDERWIN project known to the technical community and general public.

TECNALIA acted as the Dissemination and Communication Manager of the project coordinating and supervising all the dissemination activities. On the other hand, all partners of the consortium contributed to the ΣIDERWIN dissemination according to their foreseen role and effort, and using all available tools and channels (thus for instance by participating and giving presentations at conferences and workshops, publishing papers, networking, attending to fairs and showcases where technical achievements and prototypes can be presented to stakeholders, etc.) for the purpose of the project results adoption, and successful future commercialization of ΣIDERWIN results.

#### 3.6.2 Dissemination policy and rules

Dissemination activities in the ΣIDERWIN project were closely linked to the protection of intellectual property rights and confidentiality aspects which were clearly stated in the Articles 23a and 36 of the Grant Agreement, respectively, and adapted in the Consortium Agreement. It was important to find out a good balance between the interests of academic and industrial partners. Usually, the academic partners tend to publish all the information they have at their disposal, due to the usual academic motivation systems, while the industrial partners' decision if, when and where to publish may depend on commercial considerations.

The basic regulation of the dissemination activities in the Consortium Agreement states that:

*During the Project and for a period of 3 year after the end of the Project, the dissemination of own Results by one or several parties including but not restricted to publications and presentations, shall be governed by the procedure of Article 29.1 of the Grant Agreement subject to the following provisions:*

- *Prior notice of any planned publication shall be given to the other Parties at least 45 calendar days before the publication.*
- *Any objection to the planned publication shall be made in accordance with the Grant Agreement in writing to the Coordinator and to the Party or Parties proposing the dissemination within 30 calendar days after receipt of the notice. If no objection is made within the time limit stated above, the publication is permitted.*

*An objection is justified if:*

- (a) *the protection of the objecting Party's Results or Background would be adversely affected*
- (b) *the objecting Party's legitimate academic or commercial interests in relation to the Results or Background would be significantly harmed.*



*(c) The proposed publication contains Confidential Information of the objecting Party.*

*The objection has to include a precise request for necessary modifications.*

*If an objection has been raised the involved Parties shall discuss how to overcome the justified grounds for the objection on a timely basis (for example by amendment to the planned publication and/or by protecting information before publication) and the objecting Party shall not unreasonably continue the opposition if appropriate measures are taken following the discussion.*

*The objecting Party can request a publication delay of not more than 90 calendar days from the time it raises such an objection. After 90 calendar days the publication is permitted, provided that appropriate measures are taken that remove the justification of the objection.*

***A Party shall not include in any dissemination activity another Party's Results or Background without obtaining the owning Party's prior written approval unless they are already published.***

The project partners followed the Open Access principle, as required by the Article 29.2 of the Grant Agreement. They published their results according to the green model ([http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/oa\\_pilot/h2020-hioa-pilot-guide\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hioa-pilot-guide_en.pdf)) and used their organisation's existing institutional repositories to offer free online access to scientific journal articles and reports in order to increase the visibility and availability of SIDERWIN outputs. The dissemination manager (TECNALIA) has its own repository following the 'green' open access model. According to the Grant Agreement:

*The bibliographic metadata must be in a standard format and must include all of the following:*

- *the terms "European Union (EU)" and "Horizon 2020";*
- *the name of the action, acronym and grant number;*
- *the publication date, and length of embargo period if applicable, and*
- *a persistent identifier.*

According to the Article 29.4 of the Grant Agreement, unless the Commission requests or agrees otherwise, or unless it is impossible, it is necessary to include the European emblem and the following statement of financial support on all the dissemination documents and applications for protection of results:

*"This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 768788".*



When displayed together with another logo, the EU emblem must have appropriate prominence. According to the Article 29.5, any dissemination of results must include the following Disclaimer excluding Commission responsibility:

*"This [insert type of activity] reflects only the author's views and the Commission is not responsible for any use that may be made of the information contained therein."*

Finally, in addition to the acknowledgement to the EU, all the dissemination material must include:

- the acronym of the project: SIDERWIN.
- the logo of the project, if feasible.
- the project's website URL (<https://www.SIDERWIN-spire.eu/>).

### 3.6.3 Dissemination activities planning and follow-up

As described in the previous sections, a key element for the dissemination of the project results was their presentation in scientific and technical publications, trade journals and magazines, national and international relevant scientific conferences, workshops, exhibitions, fairs, and the media (press releases, radio, TV...).

For the planning and follow-up of these activities, a section in the ΣIDERWIN SharePoint was designed to create and store the “dissemination reports” of each activity. The aim of these reports was to collect the most relevant information of each activity, and to allow its monitoring from the moment of its planning until its execution. In this way, the partners started filling in the report as soon as they decided to carry out an activity and then, completed the report when the activity was completed.

Five different types of reports were defined depending on the type of activity: (i) paper on a journal/magazine, (ii) presentation in a conference, (iii) participation in an event (fair, workshop...), (iv) presence in the media (press, TV...) and (v) any other type of activity. The templates for each one of the reports are included in the Annex II, but mainly they include:

- General information about the event (name, type, target, audience, etc.).
- Information about the action (title, theme, authors...).
- Feedback collected by the respective partners from the target audience (if applicable) and eventually contacts obtained for further dissemination.

### 3.6.4 Evaluation and assessment

The evaluation of the ΣIDERWIN dissemination activities and the assessment of their impact were carried out in different ways. On the one hand, the partners had defined several Key Performance Indicators (KPI), together with their main indicators and a numerical target. The target was estimated taking into account the input of each partner, and considering a minimum threshold for proper dissemination. It was foreseen that the number of dissemination activities (papers, conferences, workshops, fairs,...) would increase as the project progressed and results were achieved. If necessary, new KPIs/metrics could be defined along the project.

During the WP8 meetings and/or the project progress meetings organised every 6 months, the actual and planned values of the KPIs were analysed, and, if necessary, contingency plans could be defined in case the threshold was not reached.

## D8.6 Dissemination and Communication Actions Survey

**Table 4. Key Performance Indicators with metrics and numerical targets for the evaluation of the dissemination activities**

ID	Indicator	Metrics	Real Value (M1-M18)	Real Value (M19-M36)	Real Value (M37-M54)	Target Value (M55-M66)
<b>KPI1</b>	General public awareness through the website and social media	Number of visits on the project website	108 visits per month	181 visits per month	319 visits per month	400 visits per month
		Number of presentations uploaded to the Website/SlideShare	2	2	2	3
		Number of videos uploaded to Website/YouTube	1	2	4	4
<b>KPI2</b>	Awareness of the Scientific Community interest	Number of papers in scientific journals	0	2	6	10
		Number of presentations in scientific conferences/workshops	2	7	6	10
<b>KPI3</b>	Awareness of the industrial Community interest	Number of papers in trade journals	3	2	1	6
		Number of participations at events with industry (fairs, exhibitions, workshops...)	3	2	2	4
		Number of Interest expressions from industry to receive more information + industrial members of the Special Interest Group (SIG)	16	16	9	15
<b>KPI4</b>	ΣIDERWIN concluding webinar	ΣIDERWIN final workshop (Number of people attending to the final ΣIDERWIN workshop)	N/A	N/A	N/A	100
<b>KPI5</b>	First ΣIDERWIN webinar	First ΣIDERWIN webinar	N/A	N/A	78	78

On the other hand, in order to update the dissemination and communication plan, the partners carried out an internal evaluation of the project dissemination effectiveness in order to detect the potential weaknesses, and propose further actions to improve the dissemination plan. This internal evaluation was carried out through a specific questionnaire implemented in the ΣIDERWIN Sharepoint and based on questions such as:

1. What do you think of the current information of the website? (Home, Objectives, Workpackages, Consortium, Documents, News, Events, Special Interest Group)
2. Can you contribute to include additional information in any of the website sections? (Home, Objectives, Workpackages, Consortium, Documents, News, Events, Special Interest Group)
3. Any other comments or suggestions about the website?
4. What do you think of the dissemination actions done until the date? (Flyer, Video, Newsletter, Twitter, LinkedIn, Conferences papers/presentations, Scientific magazines paper, Contacts with industrial associations, contacts with industries, communication to general public)
5. Can you contribute to any dissemination action? (Flyer, Video, Newsletter, Twitter, LinkedIn, Conferences papers/presentations, Scientific magazines paper, Contacts with industrial associations, contacts with industries, communication to general public)
6. Any other comments or suggestions about the dissemination actions?

## D8.6 Dissemination and Communication Actions Survey

**3. 1. What do you think of the current information on the website? Please, answer the questions below. \***

Tick all that apply:

	Needs to be updated	Some changes needed	It is enough	It is ok	It is great
Home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Objectives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workshop agendas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consortium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Documents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
News	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Special Interest Group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**4. 2. Can you contribute to include additional information in any of the website sections? \***

Tick all that apply:

	Yes	No
Home	<input type="checkbox"/>	<input type="checkbox"/>
Objectives	<input type="checkbox"/>	<input type="checkbox"/>
Workshop agendas	<input type="checkbox"/>	<input type="checkbox"/>
Consortium	<input type="checkbox"/>	<input type="checkbox"/>
Documents	<input type="checkbox"/>	<input type="checkbox"/>
News	<input type="checkbox"/>	<input type="checkbox"/>
Events	<input type="checkbox"/>	<input type="checkbox"/>
Special Interest Group	<input type="checkbox"/>	<input type="checkbox"/>

**5. 3. Any other comments or suggestions about the website? \***

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Dissemination actions**

**6. 4. What do you think of the dissemination actions done until the date? Please, answer the questions below. \***

Tick all that apply:

	Needs to be updated	Some changes needed	It is enough	It is ok	It is great
Flyer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Video	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Newsletter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Twitter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LinkedIn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conference papers/presentations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scientific magazines/papers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contacts with industrial associations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contacts with industries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communication to general public	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**7. 5. Can you contribute to any dissemination action? \***

Tick all that apply:

	Yes	No
Flyer	<input type="checkbox"/>	<input type="checkbox"/>
Video	<input type="checkbox"/>	<input type="checkbox"/>
Newsletter	<input type="checkbox"/>	<input type="checkbox"/>
Twitter	<input type="checkbox"/>	<input type="checkbox"/>
LinkedIn	<input type="checkbox"/>	<input type="checkbox"/>
Conference papers/presentations	<input type="checkbox"/>	<input type="checkbox"/>
Scientific magazines/papers	<input type="checkbox"/>	<input type="checkbox"/>
Contacts with industrial associations	<input type="checkbox"/>	<input type="checkbox"/>
Contacts with industries	<input type="checkbox"/>	<input type="checkbox"/>
Communication to general public	<input type="checkbox"/>	<input type="checkbox"/>

**8. 6. Any other comments or suggestions about the dissemination actions? \***

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

This content is neither created nor endorsed by Google.

Google Forms

Figure 3. D&C internal evaluation questionnaire

In addition, all events organized by the consortium were evaluated afterwards by questionnaires to participants. These evaluations were used as input to improve later such events. This was for example the case of first ΣIDERWIN webinar by means of a questionnaire to attendees.

## 4 Activities performed during the project

This section describes the main dissemination and communication activities carried out during the project (from month 1 to month 66).

### 4.1 Design of the ΣIDERWIN logo and visual identity

The ΣIDERWIN logo was designed by a professional marketing company at the beginning of the project. It is worth mentioning that the selection of the project logo was an open process within the consortium, where all the partners had the opportunity to choose their favourite one among the different logo proposals, as well as to make suggestions through the questionnaire sent by TECNALIA, as WP8 leader.

The final logo incorporated some of the changes suggested by the ΣIDERWIN partners.

There were two versions of the logo, the main one (Figure 4.a) included the name of the project, and there was also a simplified version focused on social networking profiles (Figure 4.b).



Figure 4. a) Main ΣIDERWIN logo; b) Short ΣIDERWIN logo

The ΣIDERWIN logo was included in all the deliverables, reports, and dissemination material/tools.

### 4.2 Implementation and update of the ΣIDERWIN Web page

The ΣIDERWIN website <https://www.SIDERWIN-spire.eu/> has been available since month 3 of the project and it has been described in Deliverable D8.1. Project website. Oriented towards dissemination, the website provide essential information related to the project and the partners through different sections (see Figure 5):

- *Home*: provides an overview of the project. In addition to direct access to the ΣIDERWIN video, a photo carrousel and direct access to the ΣIDERWIN webinars videos were included in this section.
- *Objectives*: provides a description of the project objectives and the background.
- *Workpages*: describes the eight WPs and the relationship between them.
- *Consortium*: presents the partners involved and links to their websites.
- *Documents*: provides access to public documents of the project (public deliverables, open access papers, etc.) and dissemination material (flyers, presentations, videos,...). This section also contains the newsletters sent to people registered in the SIG and distributed through social networks.
- *Cocreation area*: provides a link to the collaborative platform.

## D8.6 Dissemination and Communication Actions Survey

- **News:** provides general information (both internal and external) related to the project.
- **Events:** provides information about events organised/attended by the consortium (meetings and dissemination events).
- **Special Interest Group:** managed the subscription of people/organizations interested in being part of the SIG. The registration form was closed on the 31<sup>st</sup> of March 2023.
- **Contact us:** provides the public audience the contact points where to ask for more information about the project.

**SIDERWIN** Development of new methodologies for InDustrial CO<sub>2</sub>-freE steel pRduction by electroWINning

The decarbonization strategy of ArcelorMittal – How and why is iron electro-winning a promising for the future of steel?

Jean-Paul Allemand – ArcelorMittal  
Webinar March 23<sup>rd</sup> 2023

Previous Pause Next

SIDERWIN concluding webinar 23rd March 2023 and Slides  
[LINK](#)

SIDERWIN webinar 2021 recording available!  
[LINK](#)

Development of new methodologies for InDustrial CO<sub>2</sub>-freE steel pRduction by electroWINning

SIDERWIN is a European project under the Horizon 2020 framework and the SPIRE initiative

SIDERWIN SPIRE (subtitled) - Iron ore Electro-winning

Watch on YouTube

project addresses the application of electricity to directly iron oxide into iron metal and oxygen gas.

Steel production represents 4% of Europe(27) CO<sub>2</sub> emissions, and therefore CO<sub>2</sub> mitigation in steel production is required.

Based on this premise, SIDERWIN project proposes a breakthrough innovation, compared to the actual steel production process, bringing together steel making with electrochemical process.

An electrolytic process, flexible enough to be supplied by renewable energies, will transform iron oxides, including those inside the byproducts from other metallurgies, into steel plate with a significant reduction of energy use.

This process decomposes under mild conditions but at intense reaction rates naturally occurring iron oxides such as hematite into iron metal and oxygen gas. By offering a CO<sub>2</sub>-free steel production process, the project will contribute to the reduction of the total greenhouse gas emissions. Compared to traditional steelmaking plants, this innovative technology has several positive impacts such as:

- a reduction by 87% of the direct CO<sub>2</sub> emissions,
- a reduction by 31% of the direct energy use,
- the ability to produce steel from by-products rich in iron oxides from non-ferrous metallurgy residues, and
- an increased integration with renewable energies with a more flexible process.

The project is led by ArcelorMittal, the world's leading steel and mining company. The company has been working for 12 years on the development of the technology to bring it from the TRL 0 to TRL 4 through the manufacturing of 5 different pilots, proving the potential of the technology. With this solid background, ArcelorMittal surrounded by 11 additional innovative European partners, aims at developing a 3 metre-long new experimental pilot to validate the technology at TRL 6.

Cell Versions: N°1, N°2, N°3

Iron samples: 770mm long, 40, 4.3mm thick

Logos: ArcelorMittal, John Cockerill, EDF, CFD numerics, Quantia, tecnalia, universidade de aveiro, MYTILINOS, Dynergie, NTNU, recoy

General information of the project:

- Project Title: Development of new methodologies for industrial CO<sub>2</sub>-free steel production by electro-winning
- Acronym: SIDERWIN
- Participants: ArcelorMittal (Coordinator, France), JohnCockerill (Belgium), EDF (France), CIO-Hemmet (France), QUANTIS (Switzerland), TECNALIA (Spain), UAW (Portugal), Hydromet (Greece), NTUA (Greece), H-Side (Belgium), Dynergie (France), NTNU (Norway)
- Proj. ID: 768788
- Duration: October 2017 – September 2022 (60 months)

© 2021 TECNALIA. All rights reserved.

Project Centre for Innovation in Steel  
C/Santa Rufina, 150  
E-48160 Gernika (Bilbao)  
Tel: +34 944 432 000  
www.siderwin.eu

Legal information | Privacy policy | Cookie preferences

Follow Us: Twitter, LinkedIn

Tweets by @siderwin\_spire

SiderwinSpire @siderwin\_spire

Webinar recording available!! SIDERWIN A breakthrough technology to decarbonize primary steel production through direct electrification siderwin-spire.eu/news/siderwin-... #NetZeroCarbon @ASPIRE\_P4Pmet @HorizonEU @EUSciencemov @EUROFER\_eu

Embed View on Twitter

Figure 5. Screenshot of SIDERWIN updated homepage and footer

The SIDERWIN website provides links to H2020 and A.SPIRE websites, and to the SIDERWIN Twitter account and LinkedIn page. It also allows using the Google Analytics utilities to monitor



## D8.6 Dissemination and Communication Actions Survey

the website access: number of visitors, duration of the visits, geographical area, pages of the website more visited...

The website has been regularly updated by the website-manager with contributions from partners, published deliverables, information on project meetings and dissemination events attended by the partners, new dissemination materials, etc.

### Analysis of the ΣIDERWIN website visits (from 1<sup>st</sup> of October 2017 until 31<sup>st</sup> March 2023)

ΣIDERWIN used Google Analytics to monitor the behaviour of the website. This allowed the project to manage the strategy with the main goal of reaching the right audience. From the analytics collected throughout the project (1<sup>st</sup> October 2017 to 31<sup>st</sup> March 2023) the total number of users of the ΣIDERWIN website is 15,726 of which 14,255 are new users. In total 20,534 sessions have been opened with an average of 1.47 sessions per user and an average duration of 00:02:11. Figure 6 shows the evolution of the number of users and sessions during the project life and Figure 7 the channels used to access the website and the evolution of the number of users per month. About 45.04% of the visitors came to the ΣIDERWIN website through organic searches, 40.1% through a direct access, 11.4% through referral and 3.0% from the social networks.

As it can be appreciated in Figure 6, there was an error as the number of users is lower than the number of new users, which makes no sense. The correct number of users was determined by adding the number of users per month exported from Google Analytics to an Excel file, and it is 15,726 instead of 13,934.

Figure 8 shows the most visited pages of the website. After the homepage with 40.69% of visitors, the second most visited page is the project objectives (9.73%), followed by the deliverables (7.94%) and news (6.06%) sections.

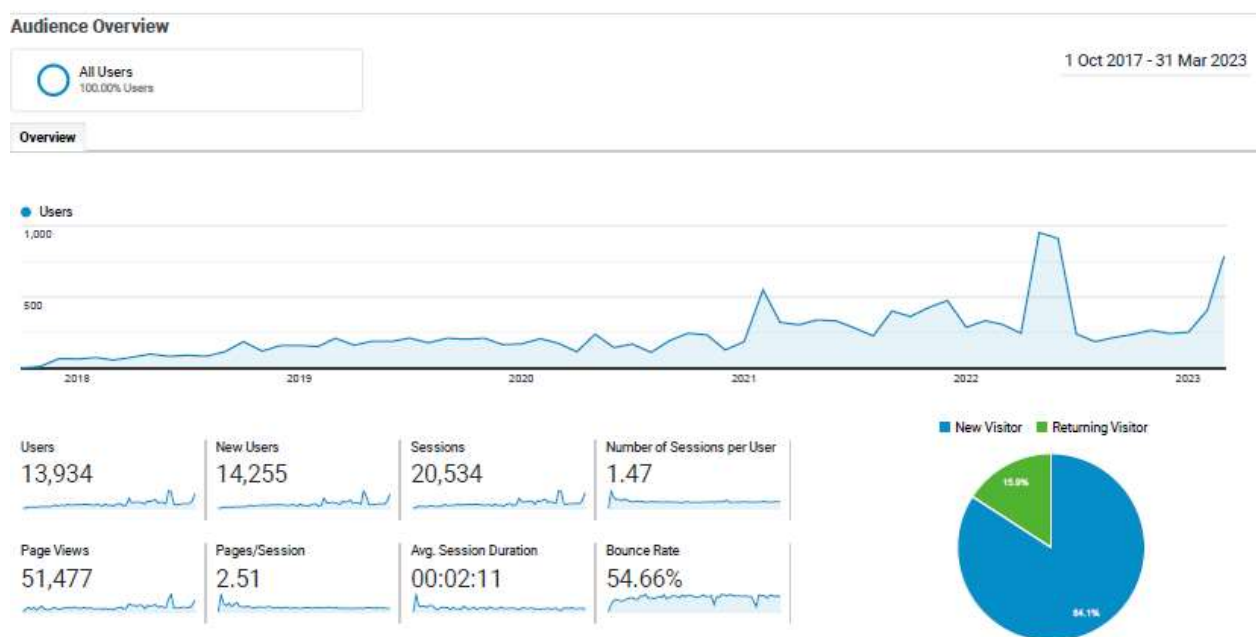


Figure 6. Users' evolution to ΣIDERWIN website (1<sup>st</sup> October 2017- 31<sup>st</sup> March 2023)

## D8.6 Dissemination and Communication Actions Survey

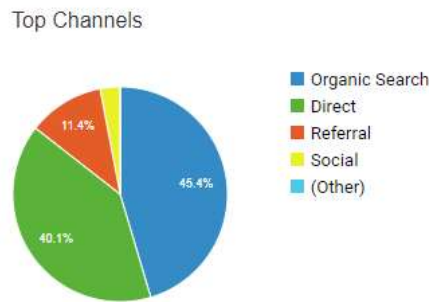


Figure 7. Traffic in SIDERWIN website

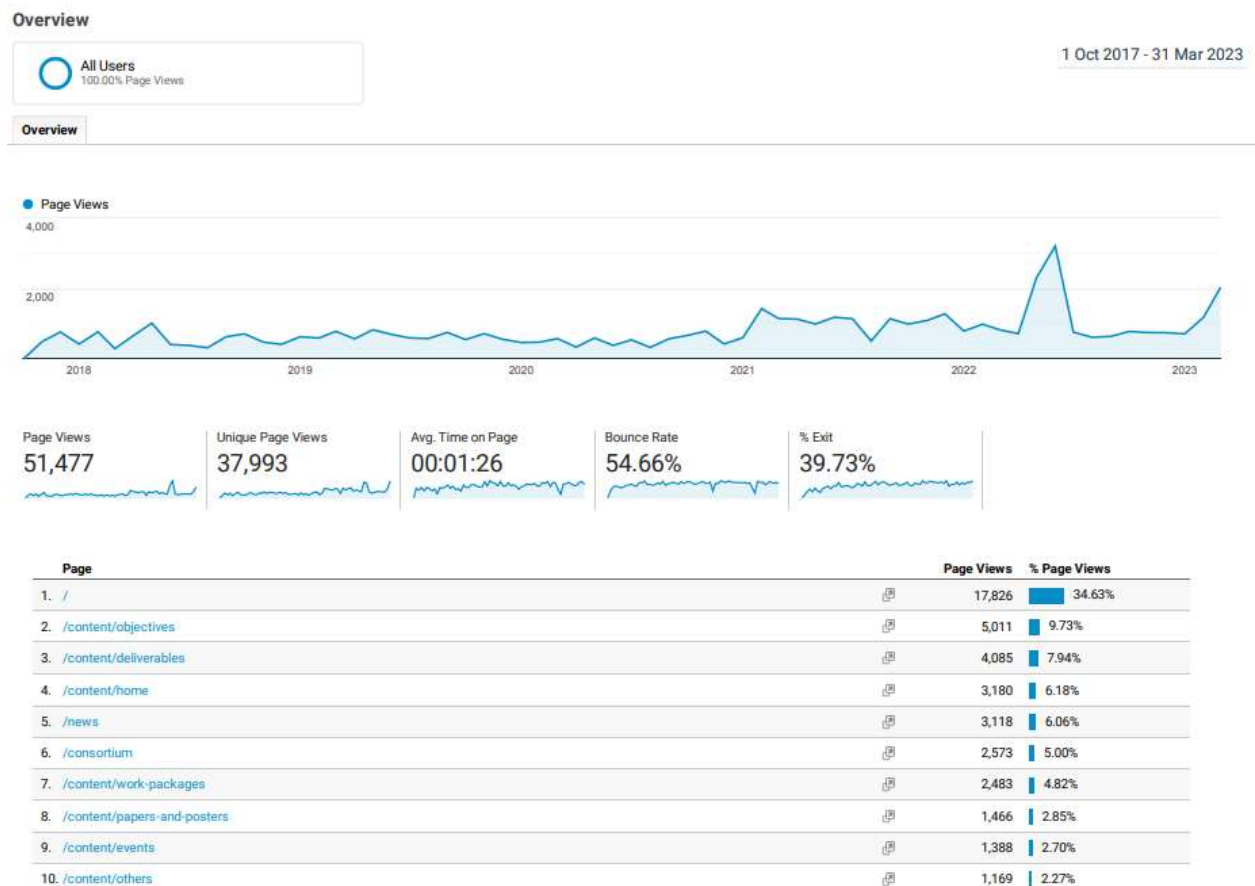


Figure 8. Most visited pages of SIDERWIN website

Figure 9 shows the percentage of visits per country. It is noteworthy that during the project, the USA was always in first place. At the end of the project, the ranking of countries is as follows: USA (20.02%), France (11.01%), Germany (8.11%) and Belgium (5.62%), followed by other countries with percentages below 5% such as the United Kingdom, India, Spain, the Netherlands,... Looking at the world map, it could be said that the visibility of the project website is spread all over the world.



## D8.6 Dissemination and Communication Actions Survey

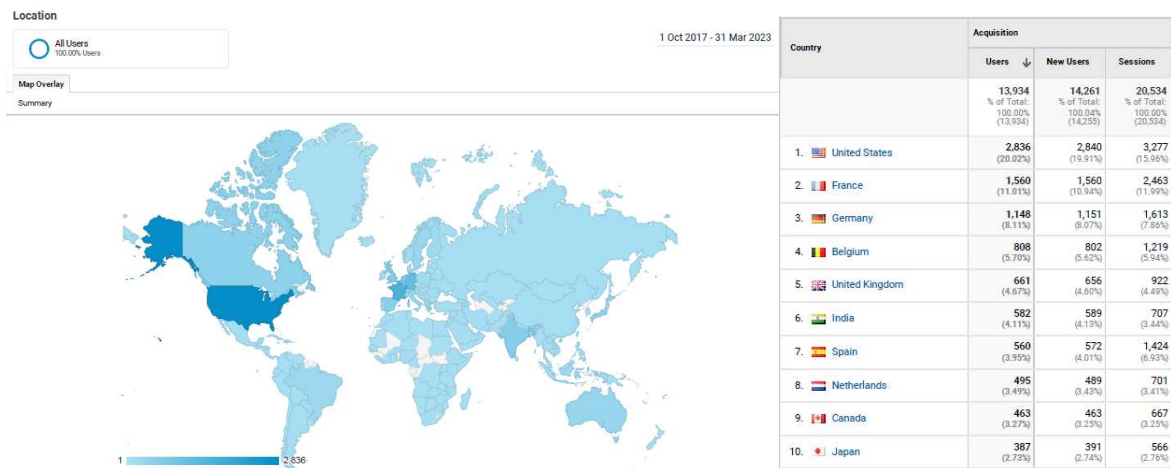


Figure 9. SIDERWIN website users by country

### 4.3 SIDERWIN at social networks

The Twitter account for the project @SIDERWIN\_Spire and the LinkedIn profile have been available since the beginning of the project (see Figure 10), and they have been used to publish announcements and relevant information about the project.



Figure 10. SIDERWIN Twitter account and LinkedIn profile

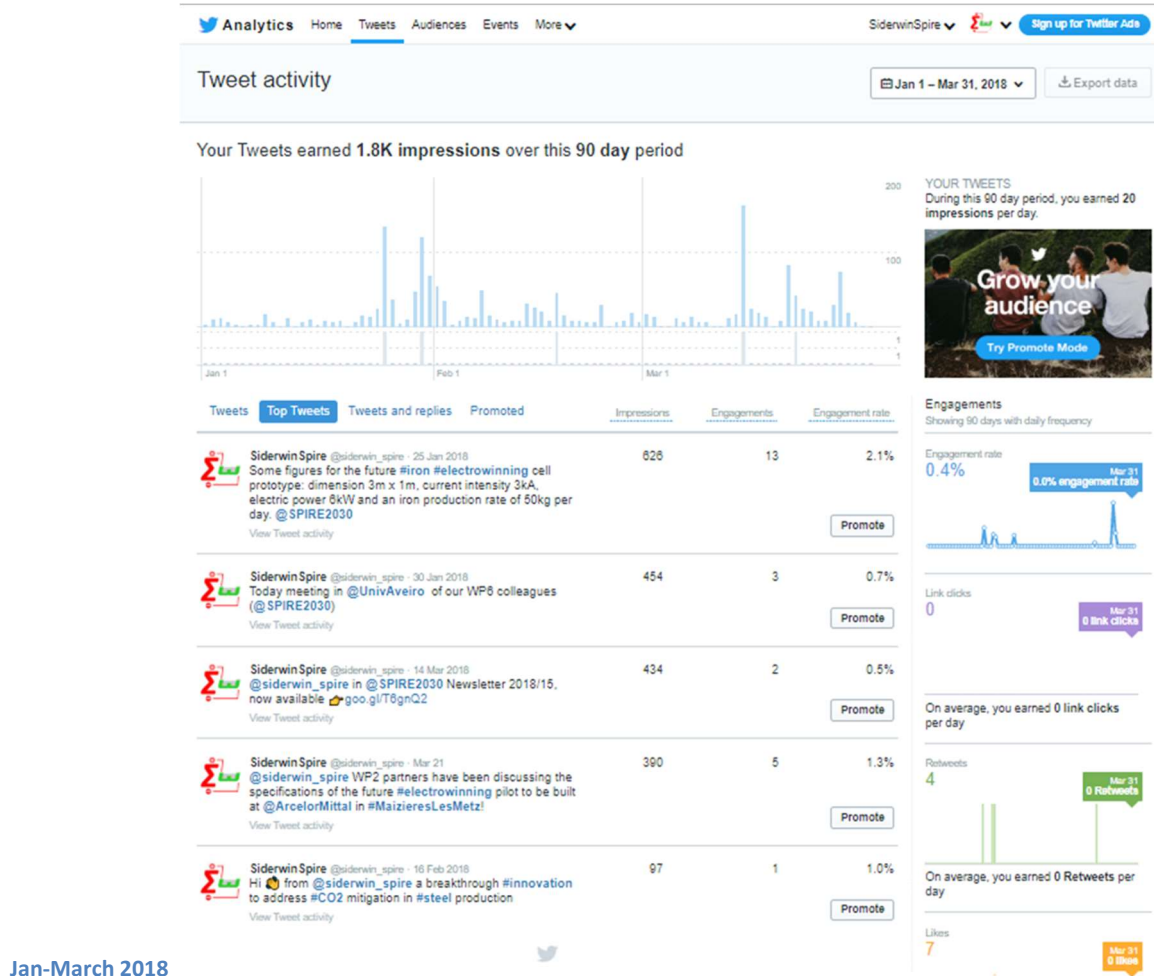
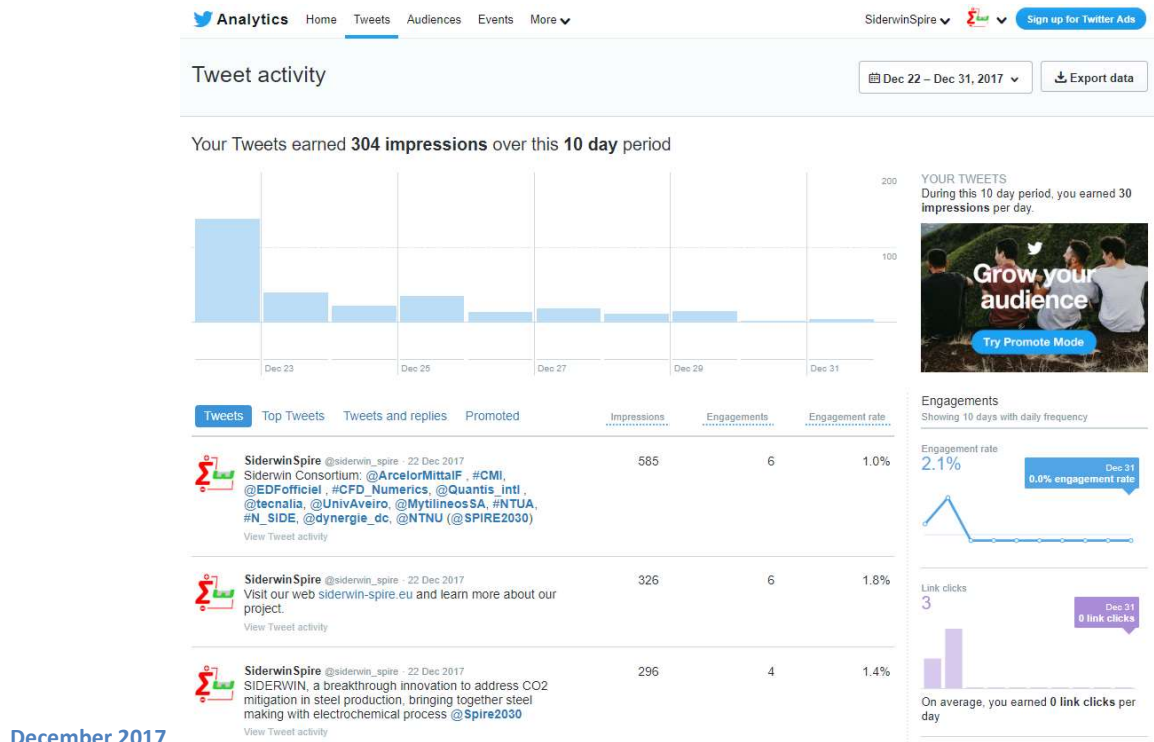
The SIDERWIN account has 114 followers, while the LinkedIn profile has 160.

#### Analysis of the SIDERWIN Twitter activity (from October 2017 to March 2023)

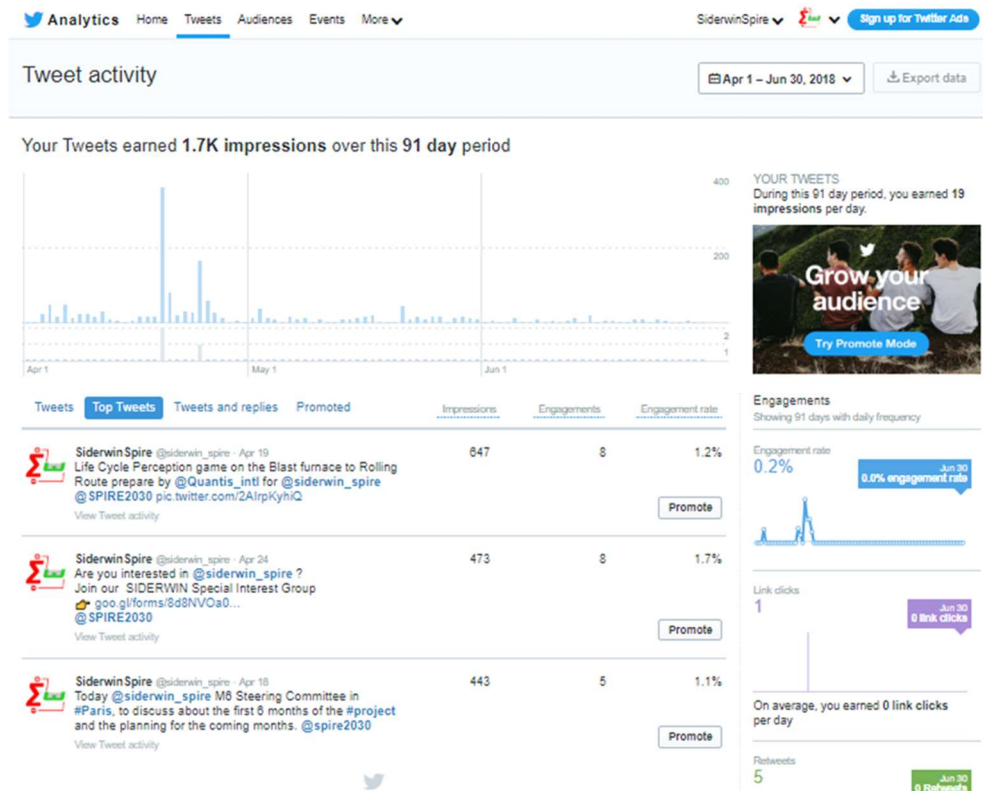
During the project, there were 226 tweets. Figure 11 depicts the activity of the project's Twitter account for different time periods showing the more relevant tweets regarding the number of impressions received.

The top tweet was the one communicating the beginning of the in-site integration of the pilot cell in the facilities of ArcelorMittal at Maizières, in February 2021 which had a total of 1,545 impressions.

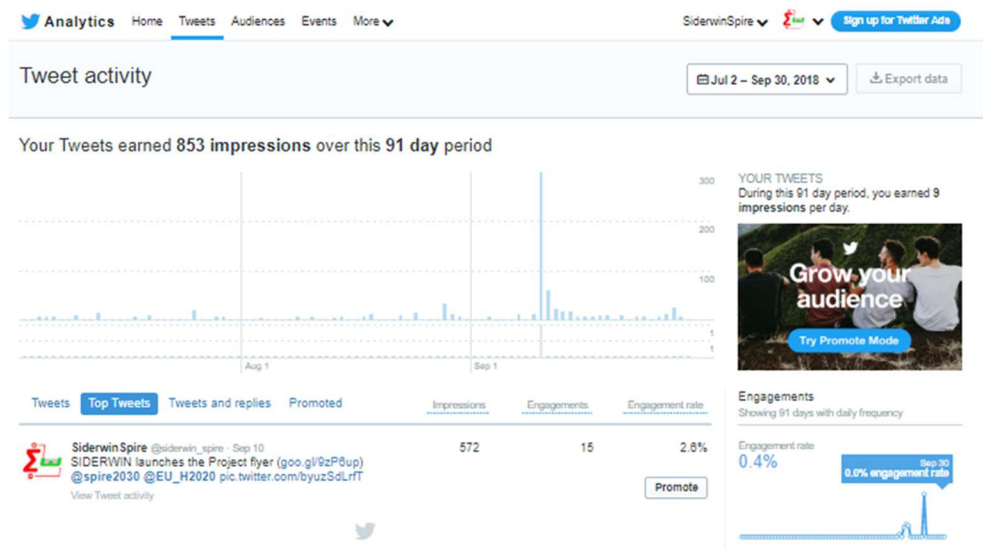
## D8.6 Dissemination and Communication Actions Survey



## D8.6 Dissemination and Communication Actions Survey

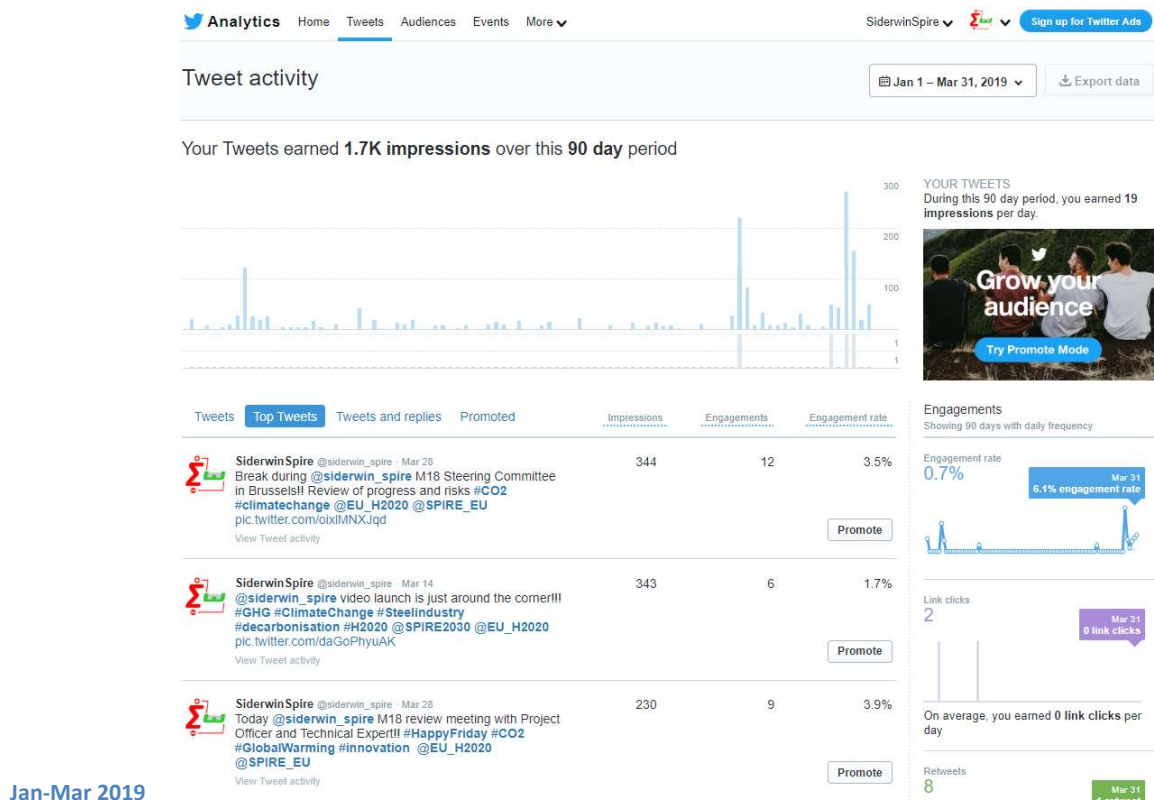
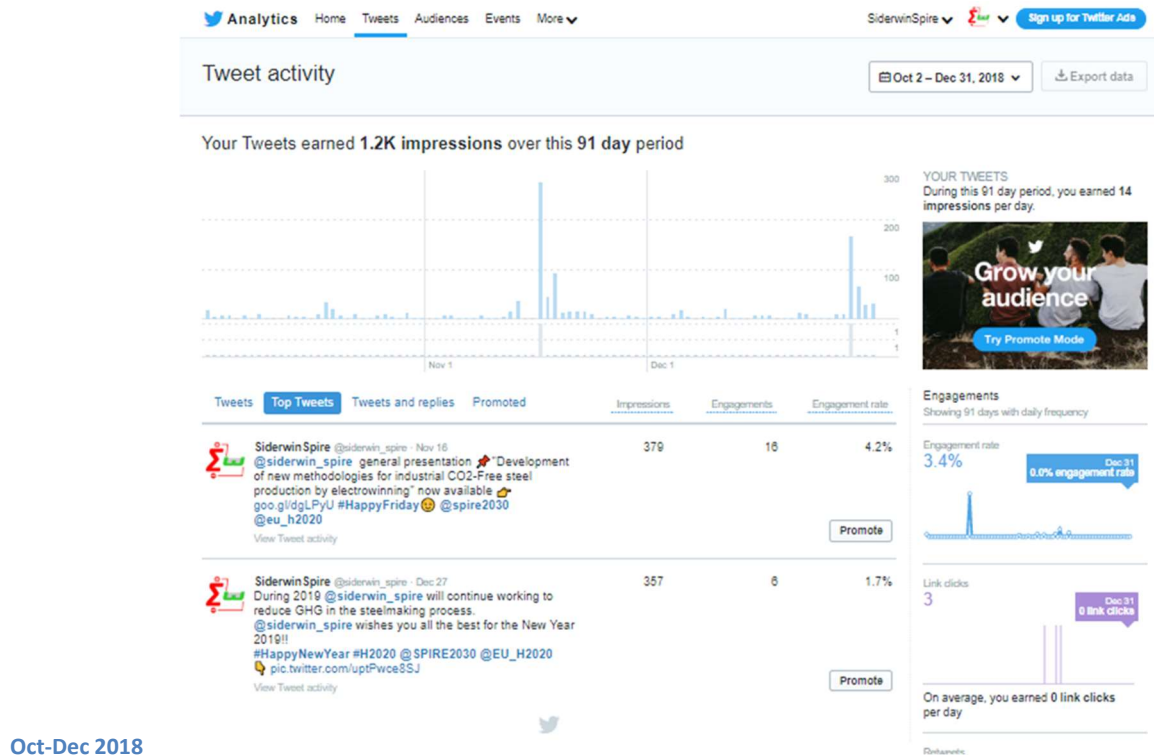


Apr-Jun 2018







Jul - Sept2018

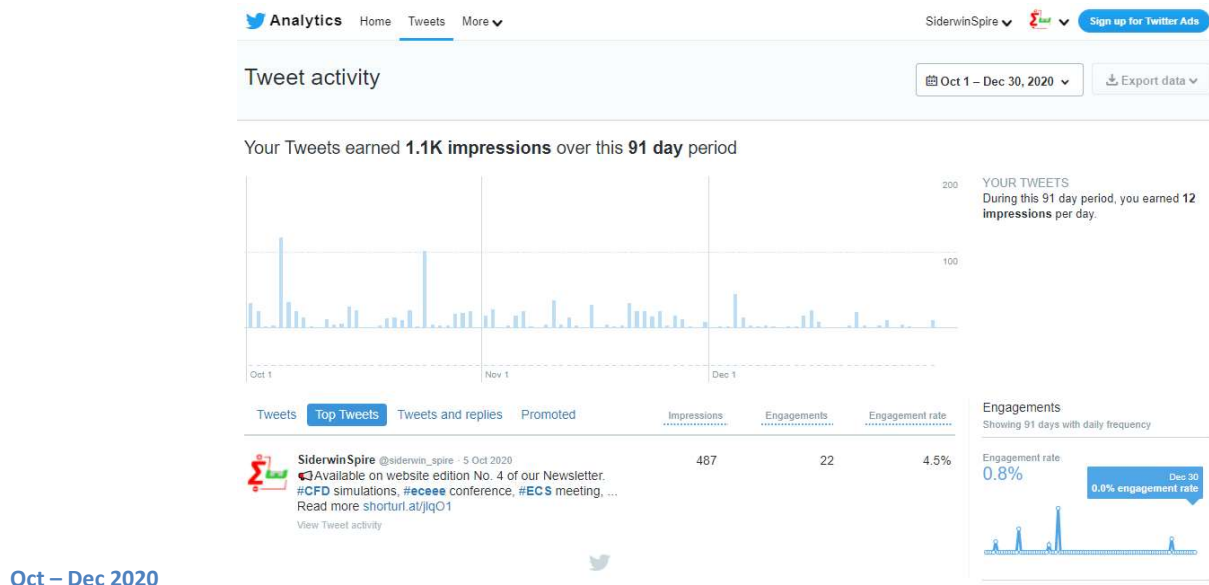
## D8.6 Dissemination and Communication Actions Survey



## D8.6 Dissemination and Communication Actions Survey

Tweets	Top Tweets	Tweets and replies	Promoted	Impressions	Engagements	Engagement rate
	<b>SiderwinSpire</b> @siderwin_spire · 23 May 2019 @siderwin_spire pilot plant ever closer. Building's works have started. #ClimateChange #ClimateAction #Steel #innovation @EU_H2020 @SPIRE_EU pic.twitter.com/C6MKgHW0lg			1,146	21	1.8%
			Promote			
	<b>SiderwinSpire</b> @siderwin_spire · 2 Apr 2019 Creating Synergies in @siderwin_spire!! Aluminum Industry waste materials can be used as raw material for Steel Electrowinning. #CO2 #GlobalWarming #innovation #reuse #CircularEconomy #steel #ironore #bauxite @spire_eu @h2020_eu Typical bauxite residue macrostructure pic.twitter.com/EvTyfcNukR			1,033	18	1.7%
			Promote			
	<b>SiderwinSpire</b> @siderwin_spire · Mar 26 Yesterday @siderwin_spire General Assembly M30 by teleconference, due to #covid19. Partners discussed the results of the last 6 months and faced how to continue working in this exceptional situation. @SPIRE_EU @EU_H2020			997	14	1.4%
			Promote			
	<b>SiderwinSpire</b> @siderwin_spire · Jul 3 Our partner #NTUA -National Technical University of Athens- NTUA paper "Electrolytic iron production from alkaline bauxite residue slurries at low temperatures" will be published at the Johnson Matthey Technology Review. Great work! #steel #GreenDeal @EU_Commission @SPIRE2030			737	7	0.9%
			Promote			

Apr 2019 – Sept 2020

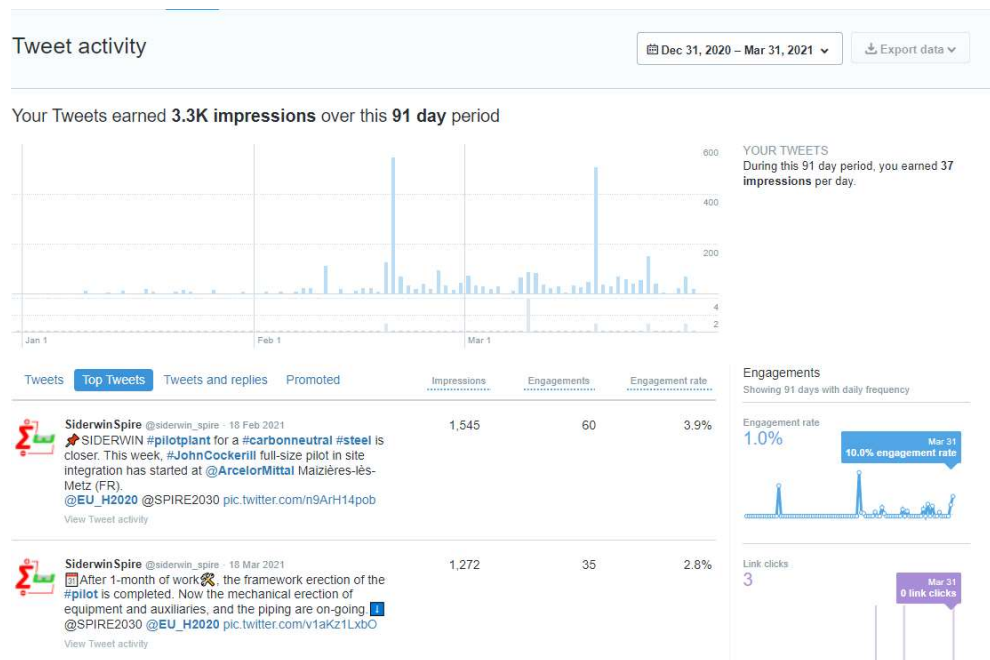


Oct – Dec 2020

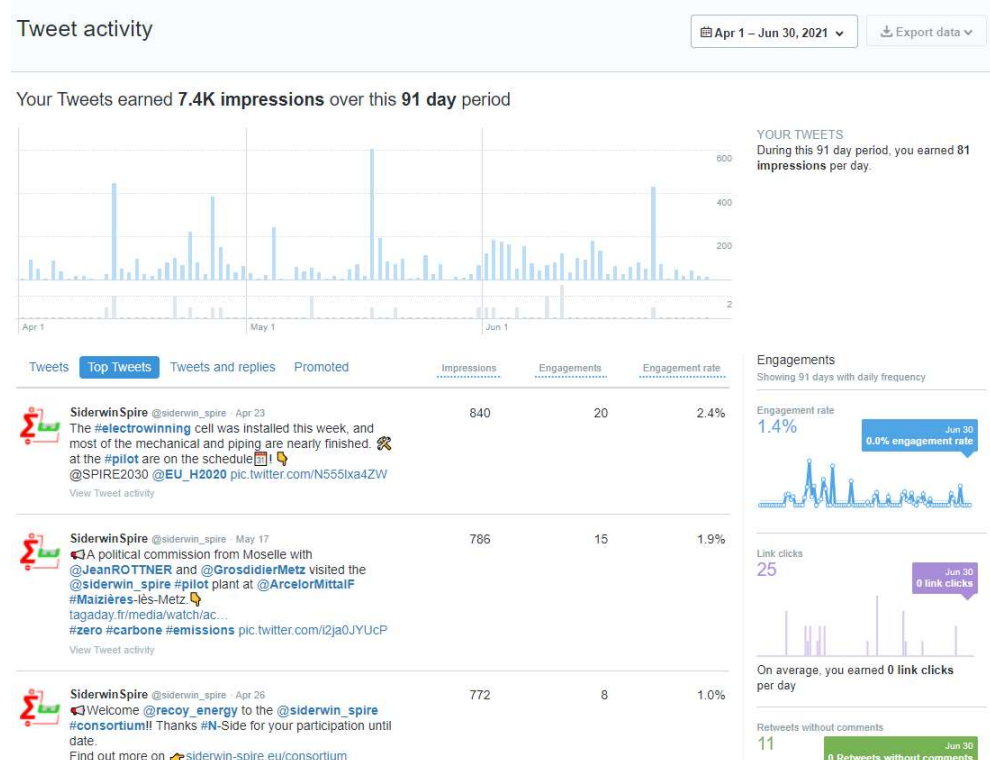


## D8.6 Dissemination and Communication Actions Survey

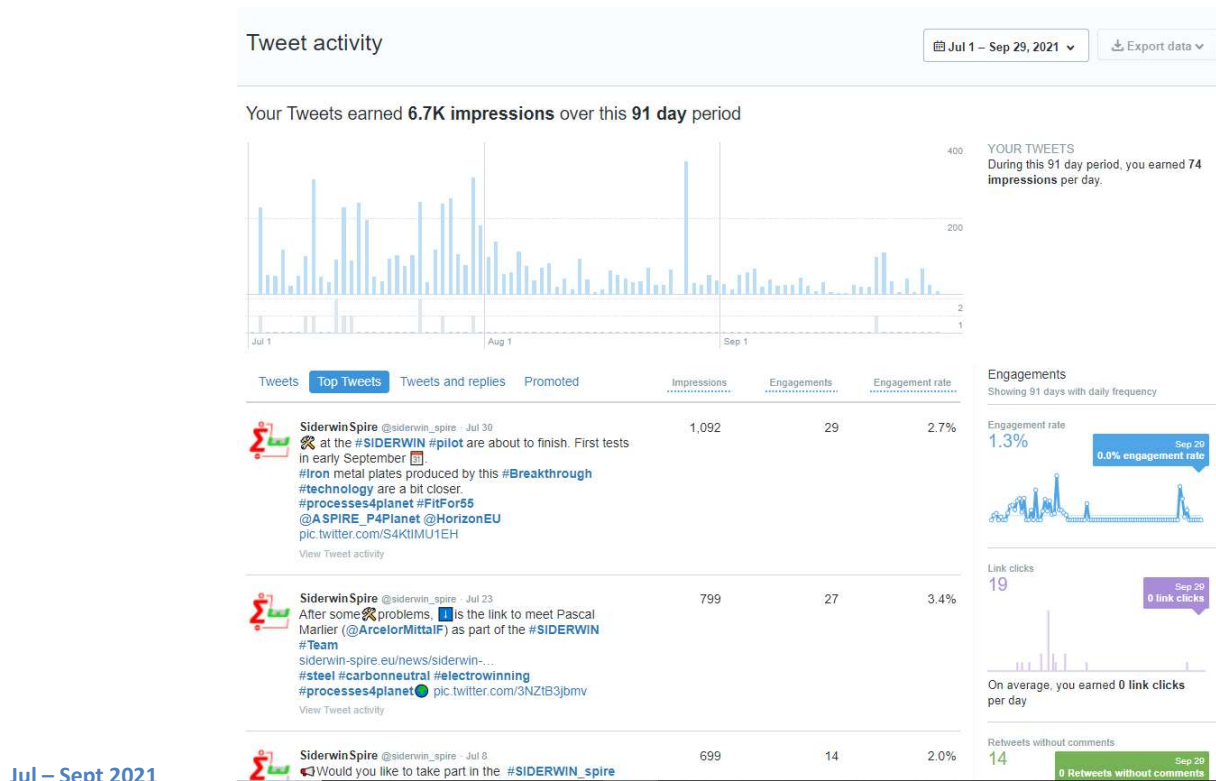
Jan – Mar 2021



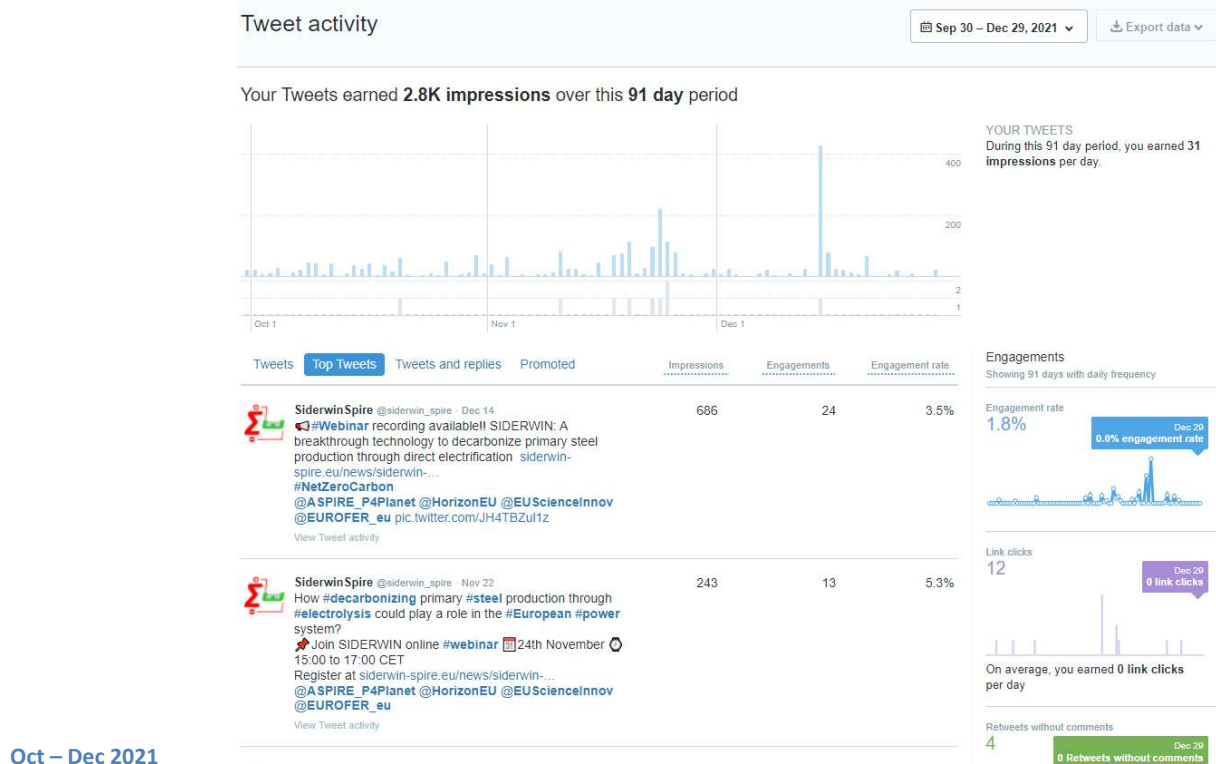
Apr – Jun 2021



## D8.6 Dissemination and Communication Actions Survey

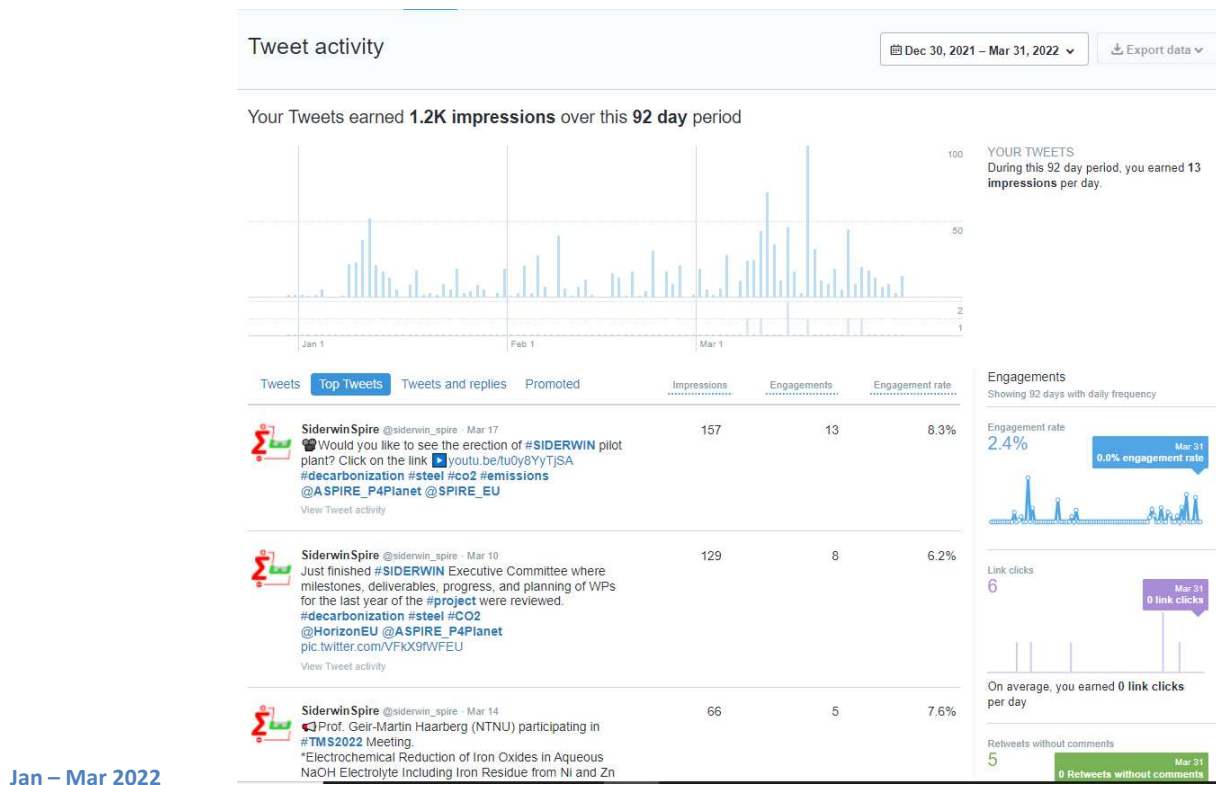


Jul – Sept 2021

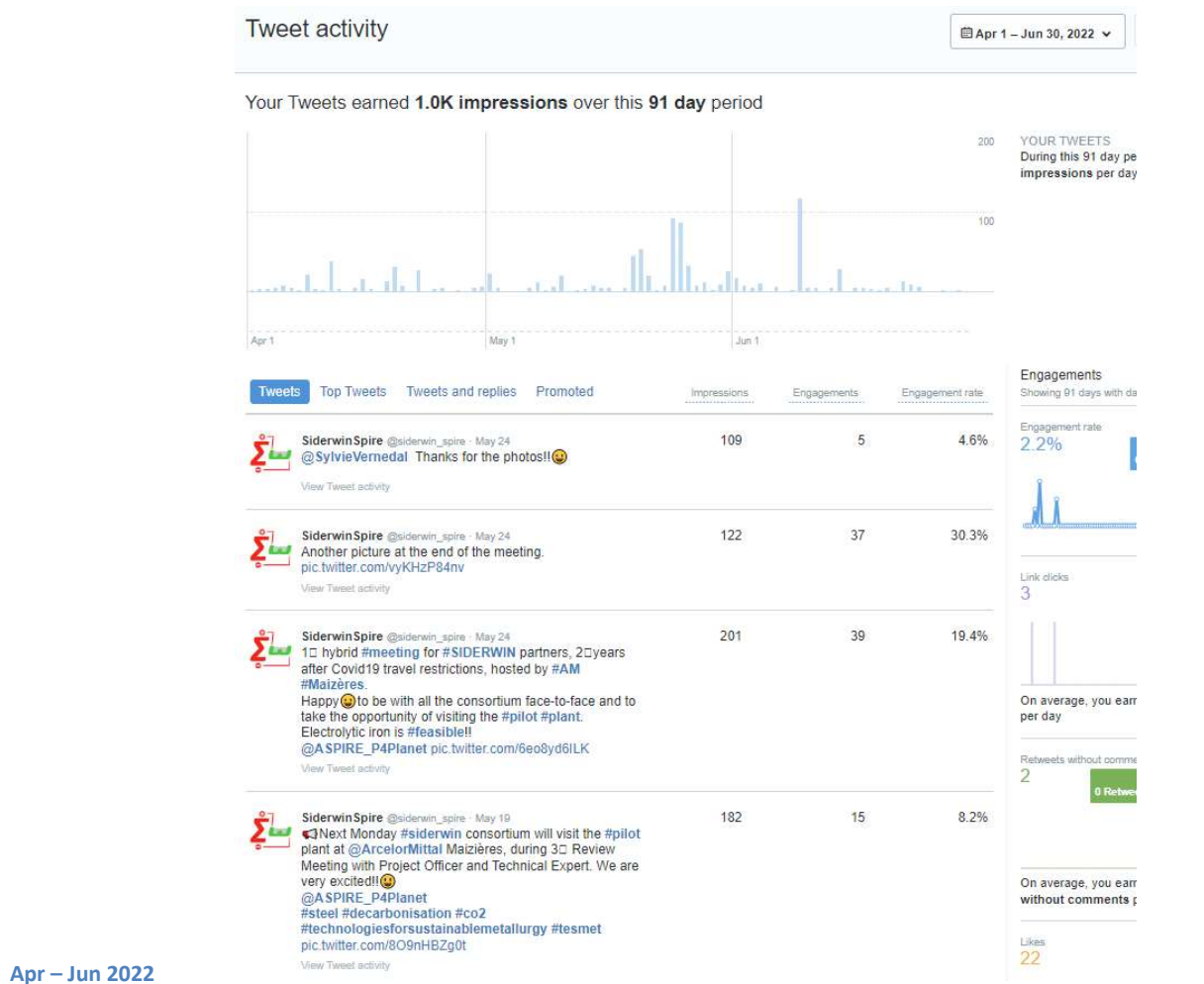


Oct – Dec 2021

## D8.6 Dissemination and Communication Actions Survey



Jan – Mar 2022



Apr – Jun 2022



## D8.6 Dissemination and Communication Actions Survey

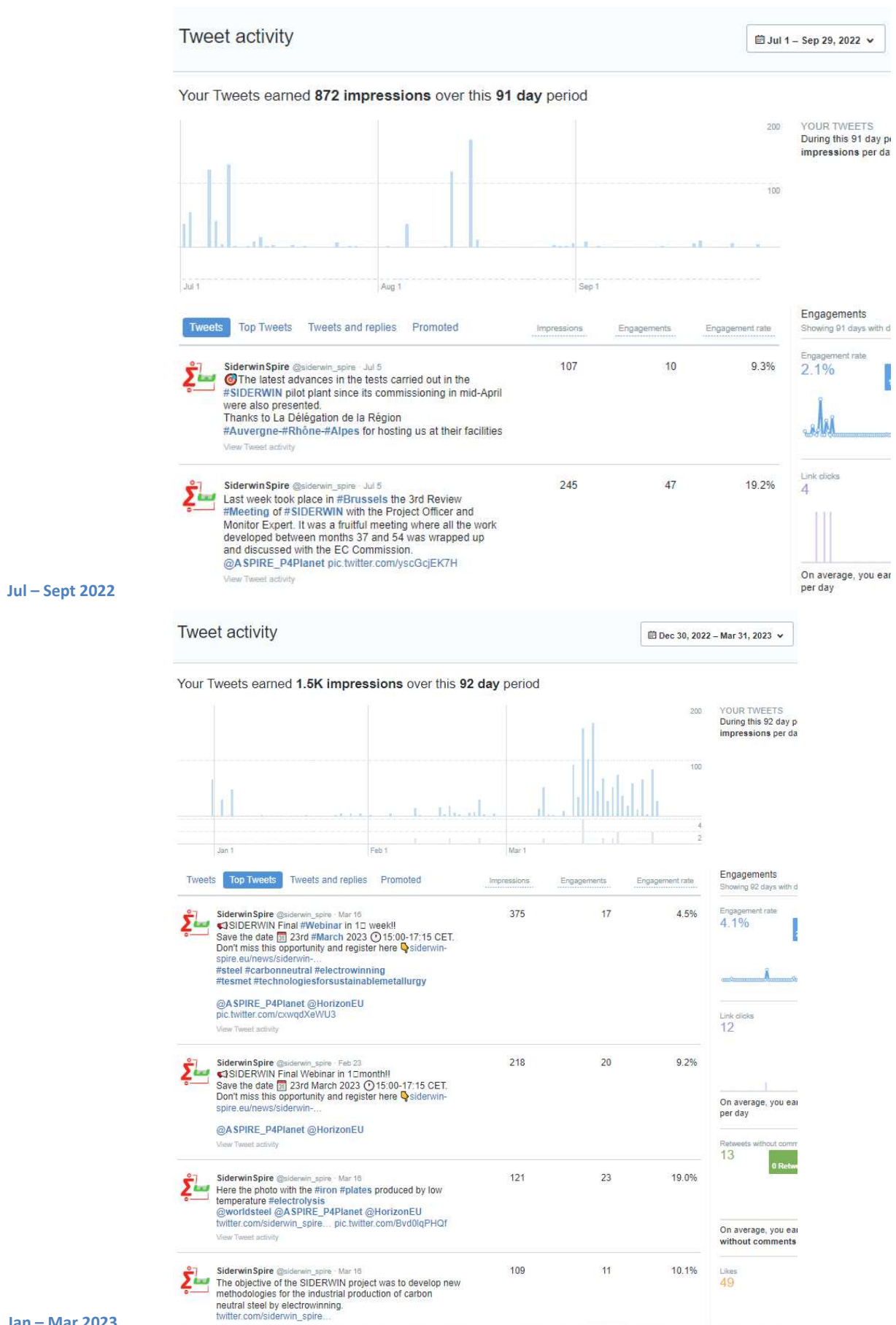


Figure 11. SIDERWIN Twitter activity register and top tweets (Oct 2017 to March 2023)

### 4.4 Project roll-up poster

A project roll-up poster was prepared to be used in trade fairs, workshops, conferences or other events where the SIDERWIN project could be highlighted.

Two copies were available to be used by any of the partners. One of them was at ArcelorMittal and the other one was at TECNALIA. Figure 12 shows the roll-up poster when it was displayed at the main hall of TECNALIA headquarters in Derio.



Figure 12 Two pictures of SIDERWIN Roll-up Poster at TECNALIA main hall

### 4.5 Preparation of dissemination material

At the beginning of the SIDERWIN project (M9) a flyer was produced to present the objectives, the approach, the consortium and the main (expected) benefits. A total of 1,000 paper copies of

## D8.6 Dissemination and Communication Actions Survey

the flyer were printed for their use during congresses, fairs, and so on. There is also an electronic version available on the website.

A general presentation of the project was produced and available on the website. It describes the motivation and objectives, the approach, the pilot plant, the potential impact, and the consortium of the project.

A short description of the project together with the logo and link to the SIDERWIN website was published on the projects page of A.SPIRE website ([https://www.aspire2050.eu/projects/our-spire-projects?field\\_tc\\_shortcode\\_tid=169&field\\_project\\_type\\_tid=All](https://www.aspire2050.eu/projects/our-spire-projects?field_tc_shortcode_tid=169&field_project_type_tid=All)) and also in the 2017 A.SPIRE-projects' brochure. The project information was submitted and published in the [2018/15](#) A.SPIRE newsletter.

At the beginning of the project, it was also produced a short video (around 2 minutes) to present the project (objectives, pilot plant and potential benefits) in a way easily understandable by the target end users. There are two versions of the video, with and without subtitles, available on the website and the YouTube channel.

Other videos produced during the project are listed below:

- JohnCockerill produced a video explaining the main aspects of the SIDERWIN project and its company's mission for the internal awards in 2020.
- NTUA prepared a video for the HydroMeTEC learning course. The video is available on the website, YouTube, Twitter, and LinkedIn accounts. Some screenshots are presented in Annex II: SIDERWIN videos of this deliverable.
- ArcelorMittal produced a short video to show the erection of the building where the pilot plant has been integrated that it was uploaded to the YouTube channel.
- ArcelorMittal also produced a time-lapse video showing the site integration of the full-size pilot plant, and it was available on the YouTube channel.
- The two videos recorded during the SIDERWIN webinars are also available on the website and the YouTube channel. On the 24<sup>th</sup> of November 2021 took place the first SIDERWIN webinar, and the concluding webinar was on the 23<sup>rd</sup> of March 2023. Both of them were recorded and uploaded to the YouTube channel of the project. More details about the webinars are explained in section 4.11.

At the end of the project, a final flyer highlighting the results obtained has been planned. It will be prepared with the main information collected in Deliverable *D5.7 Public final test report*. At the time of writing this deliverable, the *public final test report* is not yet ready. However, the final flyer will be prepared in the coming weeks, and when it is ready, it will be shared on the website and announced in social networks.

For dissemination purpose, several public deliverables (see Table 5) were prepared and released for download on the website.

## D8.6 Dissemination and Communication Actions Survey

Table 5. List of public deliverables produced by the ΣIDERWIN consortium

Deliverable Title	Deliverable description
D7.1 Framework of the techno-economic and environmental assessment	This deliverable ensures a common basis for the evaluation of the investigated technology, including the goal and scope of the environmental LCA and LCC as well as the data collection management plan to ensure good quality input data for these different studies.
D7.4 Environmental life cycle assessment final report	This deliverable includes the assessment of the environmental performance of the investigated novel process by means of environmental Life Cycle Assessment (LCA).
D8.1 Project website (M3)	This deliverable explains the structure of the website.
D8.2 Master dissemination and communication plan and updates (M6, 18, M36, M54, M66)	These deliverables describe the initial dissemination and communication activities planned and their updates during the corresponding periods.
D8.3 Data Management Plan	This document presents the obligations of the ΣIDERWIN project in terms of data management and describes how Open Access and FAIR (Findable, Accessible, Interoperable and Re-usable) are practically applied. It provides the guidelines for the consortium partners to deal with the different types of data generated during the lifespan of the project.
D8.6 Dissemination and communication actions survey (M66)	Dissemination and communication actions survey of the whole project

### 4.6 Creation and management of the Special Interest Group (SIG)

The rules for the management of the SIG have been agreed between the partners and the mechanism for the subscription of the members were available on the website, where a special section was created for this purpose in the vertical navigation bar (<https://www.SIDERWIN-spire.eu/content/special-interest-group>) to access the registration form (Figure 13). The SIG was launched by the 7<sup>th</sup> month and 46 people have registered during the 66 months of duration of the project. On the 31<sup>st</sup> of March 2023 the registration form was closed.

At the end of the project, the SIG consists of forty-six members, from the EU (59%), USA (6%), UK (2%) and other countries (33%), as depicted in Figure 14 (left). They have been classified according to their position (Figure 14 - right): members associated with universities (28%), company management (28%), experts and researchers (15%) and the remaining members (29%) include engineers (13%), business developers (7%), and consultants (5%).

Figure 13. SIDERWIN SIG registration form

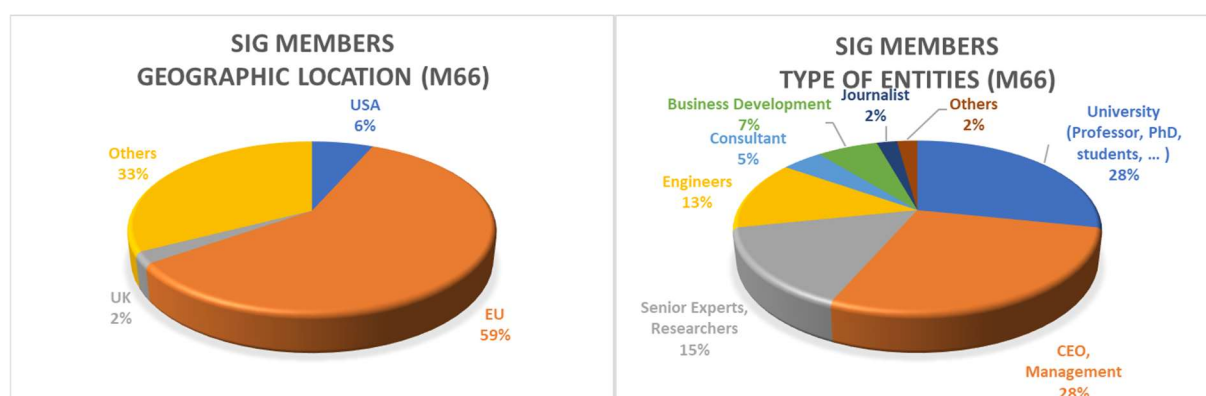


Figure 14. SIDERWIN SIG distribution M66 (46 members)

The main interest of the Special Interest Group is to get feedback from experts outside the consortium about usability of SIDERWIN developments, market potential, and additional technologies that may improve or complement SIDERWIN.

The consortium planned an online meeting with the SIG members to discuss about the price of the low carbon steel premium. In the end, the meeting did not take place because there are steel producers within the SIG. Therefore, it is forbidden by the EU law to have such a price discussion between competitors. This could be seen as an attempt to reach an anti-competitive agreement.

### 4.7 Newsletters

During the project 8 newsletters were produced, sent to the SIG and are available for download on the website.

An average of two issues per year were published from May 2019. The last issue of the newsletter was launched in March 2023. It has 5 pages with a summary of the main activities of the project from the technical and dissemination point of view during the last months.

The newsletters are available on the project website and have been also distributed by email to the SIG members and interested contacts of each partner during the project.

The front page of each newsletter is shown in Annex III of this deliverable.



## D8.6 Dissemination and Communication Actions Survey

### 4.8 Publications in scientific and trade journals

The partners published the project activities and results in various scientific and professional journals. Table 6 shows the status of the publications planned during the project, indicating whether they were completed, cancelled, rejected or planned for the near future.

**Table 6. List of publications planned during the project and their status**

Name	Date	Partner coordinating action	Status	Title	Planned Date
Galvano Organo	M04	CFD-Numerics	Done	CFD-Numerics supporting industry	M04
360° R&D	M05	CFD-Numerics	Done	CFD-Numerics apporte son savoir-faire au projet SIDERWIN pour développer de nouvelles techniques de produ	M05
SIDENEWS	M15	TECNALIA	Done	SIDERWIN: producción de acero mediante electrólisis para reducir emisiones CO2	M09
Electrochimica Acta	M27	UA	Done	Electrochemical reduction of hematite-based ceramics in alkaline medium: challenges in electrode design	M19
Johnson Matthey Technology Review Journal	M30	NTUA	Done	Electrolytic iron production from alkaline bauxite residue slurries at low temperatures	M26
Journal of the Electrochemical Society	M33	UA	Done	Electrochemical deposition of zero-valent iron from alkaline ceramic suspensions of Fe <sub>2</sub> -xAl <sub>x</sub> O <sub>3</sub> for iron valoriz	M33
ECS Transactions	M32	NTNU	Done	Electrooxidation of Iron Oxide in Aqueous NaOH Electrolyte	M32
Ceramics International	M40	UA	Done	Microstructural design of cellular 3 YTZ-Al <sub>2</sub> O <sub>3</sub> ceramic membranes	M35
International Journal of Hydrogen Energy	M41	UA	Done	MXene-containing composite electrodes for hydrogen evolution: Material design aspects and approaches for e	M41
Symmetry	M44	UA	Done	Exploring the High-Temperature Electrical Performance of Ca <sub>3</sub> -xLa <sub>x</sub> Co <sub>4</sub> O <sub>9</sub> Thermoelectric Ceramics for Moderate	M44
Journal of Electrochemical Society	M46	UA	Done	Alkaline electrochemical reduction of a magnesium ferrosilite into metallic iron for the valorisation of magn	M46
Materials	M53	UA	Done	Prospects of Using Pseudobrookite as an Iron-Bearing Mineral for the Alkaline Electrolytic Production of Iron	M53
Hydrometallurgy		AMMR	Planned	Measurement of the electrochemical reactivity iron oxides from residues	M55
Hydrometallurgy		Tecnalia	Rejected	Simulation tool of an iron ore electrowinning cell	M55
Fuel	M56	UA	Done	Catalytic O <sub>2</sub> -steam gasification of biomass over Fe <sub>2</sub> -xMn <sub>x</sub> O <sub>3</sub> oxides supported on ceramic foam filters	M56
Journal of The Electrochemical Society	M58	NTNU	Done	Production of Iron Alloy by Direct Electrolytic Reduction Using Suspension Electrolysis in an Alkaline Electrolyte	M58
Journal of Industrial and Engineering Chemist		AMMR	Cancelled	Electrification of primary Steel production	M60
Chemical Engineering Research and Design		AMMR	Cancelled	Thermodynamical design of primary steel production	M60
Journal of the Electrochemical Society	M68	UA	Done	Low-temperature electrowinning from mixed hematite/magnetite alkaline suspensions	M63
Frontiers in Energy Research (or Frontiers in M	M60	UA	Done	Prospects and challenges of the electrochemical reduction of iron oxides in alkaline media for steel producti	M63
Journal of Sustainable Metallurgy		NTUA	Cancelled	Reduction of current efficiency during time in the electrolysis of Bauxite Residue	M66
Electrochimica Acta	N/A	NTUA	Cancelled		N/A
Journal of Sustainable Metallurgy	N/A	NTUA	Cancelled but Replaced		N/A
Ceramics International	N/A	UA	Cancelled	Red mud based cellular ceramics for catalytic and electrocatalytic applications	N/A
Electrochimica Acta	N/A	UA	Cancelled	Prospects for Fe-electrowinning from red mud suspensions	N/A
Electrochimica Acta	N/A	NTNU	Cancelled		TBD
Electrochimica Acta	N/A	NTNU	Cancelled		TBD
Electrochimica Acta, J. Electrochem. Soc., ..		UA	Planned	Assessment of Fe-electrowinning from alkaline suspensions under simulated conditions of intermittent powe	TBD
Journal of the Electrochemical Society		UA	Planned	Iron electrowinning from an industrial metallurgical residue	M72
Journal of The Electrochemical Society	M62	NTNU	Done	Production of Iron Alloy by Direct Electrolytic Reduction Using Suspension Electrolysis in an Alkaline Electrolyte	M62

The paper submitted by TECNALIA to Hydrometallurgy was finally rejected, but it will be submitted to another journal that focuses on software and technologies in the near future.

### 4.9 Presentations at national and international scientific conferences

The partners presented the project activities and results at national and international conferences. Table 7 summarizes the main information on the presentations planned by the partners and their status at the end of the project. A total of 28 conferences were identified, of which 21 were attended.

## D8.6 Dissemination and Communication Actions Survey

**Table 7. List of national and international conferences identified for coming months**

Name	Date	Partner coordinating action	Status	Comments
16th Electroceramics Conference	2018	UA	Done	
SF2M - La Métallurgie, quel Avenir !	2019	AMMR	Done	
ESTAD - The 10th International Metallurgy Trade Fair (METEC)	2019	AMMR	Done	
Electrification Europe 2019 International Summit	2019	AMMR	Done	
7th Panhellenic Conference on Metallic Materials	2019	NTUA	Done	Iron oxide reduction from Bauxite Residue
645th International Conference on Mining, Material, and Metallurgical Engineering (ICMME)	2019	NTUA	Planned but finally Not Attended	
15th Reactive Metal Workshop	2020	NTNU	Done	
237th Electrochemical Society (ECS) Meeting	2020	NTNU	Done	Cancelled. Proceedings published June
17th Electroceramics Conference	2020	UA	Done	
Industrial Efficiency 2020 Conference	2020	EDF	Done	Virtual Event
BR2020 - Bauxite Residue Valorisation	2020	NTUA	Done	
International Mineral Processing Congress (IMPC 2020)	2020	NTUA	Planned but finally Not Attended	SIDERWIN focused on WP6 results
International Mineral Processing Congress (IMPC 2020)	2020	NTUA	Planned but finally Not Attended	SIDERWIN project; other partners: AMM
14th Meeting of Physical Chemistry	2021	UA	Done	
29th Topical Meeting of the International Society of Electroche	2021	UA	Done	
European Metallurgical Conference 2020	2020	NTUA	Planned but finally Not Attended (Postponed for 2021)	
4th International Conference on Nanomaterials Science and M	2021	UA	Done	
4th International Conference on Nanomaterials Science and M	2021	UA	Done	
5th ESTAD 2021 (European Steel Technology and Application Days)	2021	AMMR	Planned but finally Not Attended	
International Conference on Raw Materials and Circular Econo	2021	NTUA	Done	
14th ECeS Conference for Young Scientists in Ceramics	2021	UA	Done	
39th International Conference and Exhibition ICSOBA 2021	2021	Mytilineos	Done	
2022 TMS Annual Meeting & Exhibition	2022	NTNU	Done	
5th International Conference on Nanomaterials Science and Mechanical Engineering			Done	
ICNSME	2022	UA		
BR 2022	2022	NTUA	Planned but finally Not Attended	
Jornadas CICECO 2022	2022	UA	Done	
HydrogenDays2023	2023	UA	Done	
3th Electrochemical Society Meeting	2023	NTNU	Cancelled	

### 4.10 Events

The main events that occurred during the project are summarized in Table 8:

**Table 8. List of events**

Name	Date	Partner coordinating action	Status
AXELERA Technical Day	M09	CFD-Numerics	Cancelled
European Steel Day	M09	AMMR	Done
PRAXISforum "Electrolysis in Industry"	M14	AMMR	Done
NAFEMS	M14	CFD-Numerics	Done
INTEGRATED SET PLAN Action 6	M27	AMMR	Done
Visit of European Investment Bank	M30	AMMR	Done
Daniela Lopes PhD. Thesis Defence	M34	UA	Done
Hydrometec	M43	NTUA	Done
Visit of Mosselle (FR) Political Commiss	M44	AMMR	Done
Steel Tech Congress&Expo	M49	TECNALIA	Done
Technical Day	M57	EDF	Cancelled
Francisco Duarte MSc Thesis	M66	UA	Done

One of the highlights was the Defense of the Doctoral Thesis of Daniela V. Lopes from the University of Aveiro: "Electrochemical reduction of iron oxides into zero-valent iron for red mud valorisation".

Dr. Daniela Lopes is a research fellow at CICECO – University of Aveiro Institute of Materials, Portugal, seeking steel production by electrochemical reduction within the scope of the SIDERWIN project.

## D8.6 Dissemination and Communication Actions Survey

Daniela completed the Doctoral Program in Advanced Materials and Processing in July 2020, involving the University of Coimbra (host university) and the University of Aveiro (CICECO). The PhD studies focused on designing porous ceramics materials mimicking iron-rich wastes for the electrochemical reduction of the iron oxides to iron in alkaline media. The attempt of red mud waste valorisation by electroreduction was one of the main targets, meeting the objectives of the  $\Sigma$ IDERWIN project. Since then, she has been investigating the effect of the presence of low conductive components (Al, Mg) on the electrochemical reduction of iron oxides to iron. Daniela aims to find an efficient strategy for recovering valuable metals during steel and alloys production, contributing to the development and industrialisation of the electrochemical reduction technology as a CO<sub>2</sub>-lean alternative to the conventional steel production approach.

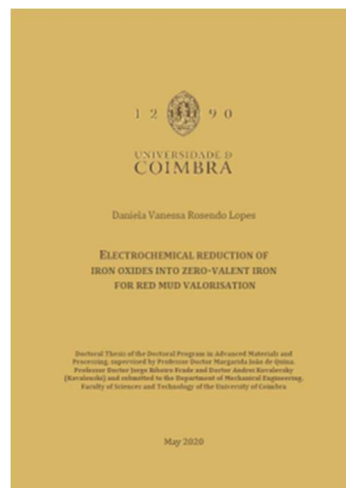


Figure 15. Cover page of Doctoral Thesis of Daniela V. Lopes

It is worth mentioning that in March 2020 (M30) the representatives of the European Investment Bank: Maria Lundqvist, Marc Tonteling and Hervé Lescoeur visited the  $\Sigma$ IDERWIN building at ArcelorMittal site. The project coordinator at the time, Hervé Lavelaine, explained to them the main developments behind the  $\Sigma$ IDERWIN project.



Figure 16. Visit of the European Investment Bank to the SIDERWIN building

Also noteworthy was the visit in May 2021 of Jean Rottner, head of “Grand Est” region in France, together with a local politician’s commission from Moselle to the  $\Sigma$ IDERWIN pilot. Hervé Lavelaine, as project coordinator at the time, explained to them the fundamentals of the operation.





Figure 17. Visit of a political commission from Moselle (FR) to the SIDERWIN building

The events category also includes HydroMeTEC and Steel Tech Congress&Expo which are described in detailed in Section 4.12.

In March 2023 occurred the Defense of the Master of Science Thesis of Francisco Duarte from the University of Aveiro: “Valorization of an industrial iron-rich residue by electroreduction for steel production”. Dr. Daniela Lopes and Dr Aleksey Lisenkov fellows at CICECO – University of Aveiro Institute of Materials, Portugal, partners of the SIDERWIN project supervised the MSc Thesis exploring the possibility of using an industrial iron-rich residue from a nickel producing industry as a feedstock for the iron electrodeposition as a CO<sub>2</sub>-free steelmaking route within the scope of the SIDERWIN project.

### 4.11 Webinars

Section 4.5 mentioned the two webinars that took place during the project. The first one was on the 24<sup>th</sup> of November in 2021, and the concluding webinar was on the 23<sup>rd</sup> of March in 2023.

The participation in both events was free but registration was required. The platform used was GoToWebinar.

For both webinars the date was announced on website and social media some weeks before the live event, and the registration form was available on the website. In addition, an email was sent to the SIG members and to other 47 people identified as possible attendees, to encourage them to register.

The master of ceremony of both webinars was Jose Ignacio Barbero from TECNALIA. During the first webinar the introductory session “*The Greening of Steel? Net-Zero Steelmaking for the EU Green Deal: SIDERWIN*” was made by Jean-Pierre Birat. He is a consultant, owner and manager of IF Steelman, who works on environmental issues, energy and materials.

For the concluding webinar the introductory session “The decarbonization strategy of ArcelorMittal – how and why is iron electrowinning a promising for the future of steel?” was made by Jean-Paul Allemand, who is the Research and Development process portfolio director in charge of strategic initiatives in ArcelorMittal Maizières Process lab.

The webinars were divided into different time slots during which the partners presented the results of the different workpages.

Before the final round of questions and answers, the project coordinators at the time, Hervé Lavelaine (2021) and Valentine Weber (2023), presented the final conclusions and perspectives.

## D8.6 Dissemination and Communication Actions Survey

The final agendas of both webinars are depicted in Figure 18 and Figure 19:

**ΣIDERWIN: A breakthrough technology to decarbonize primary steel production through direct electrification**

Topic	Speaker
Welcome and introduction to ΣIDERWIN project	José Ignacio Barbero (TECNALIA)
The Greening of Steel? Net-Zero Steelmaking for the EU Green Deal: ΣIDERWIN	Jean-Pierre Birat (IF Steelman)
Is electrodecomposition of iron oxide a feasible reaction?	Sevasti Koutsoupa (NTUA)
Is the electrolysis of primary production scalable and industrialisable?	Cédric Flandre (John Cockerill) Thierry Conte (CFD-Numerics)
How decarbonizing primary steel production through electrolysis could play a role in the European power system?	Matthildi Apostolou (EDF) Caroline Bono (EDF)
Does ΣIDERWIN contribute genuinely to deep decarbonisation?	Anna Kounina (QUANTIS)
Final conclusions	Hervé Lavelaine (ArcelorMittal)

Figure 18. First ΣIDERWIN webinar agenda (2021/11/24)

Topic	Speaker
Welcome and introduction to the Webinar.	José Ignacio Barbero (TECNALIA)
SIDERWIN Project General Overview.	Valentine Weber-Zollinger (ArcelorMittal)
The decarbonization strategy of ArcelorMittal – how and why is iron electrowinning a promising for the future of steel?	Jean-Paul Allemand (ArcelorMittal)
Iron Electrowinning – Lessons learned.	Daniela V. Lopes (Uni. Aveiro)
Alternative feeding materials. Current status and future perspectives.	Dimitrios Panias (NTUA)
Iron production by electrolysis at pilot scale.	Thierry Conte (CFD Numerics) Salah Touhami (ArcelorMittal)
The flexible potential of SIDERWIN process for the future European power system.	Morgan Barberousse (EDF)
What is the environmental impact and cost of steel decarbonization with SIDERWIN?	Roland Kahmann (RECOY)
Conclusions and Perspectives.	Valentine Weber-Zollinger (ArcelorMittal)
Questions & Answers (Final Round).	José Ignacio Barbero (TECNALIA)

Figure 19. ΣIDERWIN concluding webinar agenda (2023/03/23)

During both webinars, attendees could submit their questions by typing in the GoToWebinar chat. Some of them were answered after each main section, and there was also a dedicated time slot at the end of the webinar. However, due to the large number of questions received that could not be replied during the live events, it was decided to gather all of them in a document with their corresponding answers. These documents were provided to the attendees some weeks after the events, and they were also uploaded to the webpage.

The webinars allowed to achieve and spread the ΣIDERWIN project to the largest possible concerned audience. The people registered for the first webinar were 124 people from 64 companies, and 180 people for the concluding webinar.

## D8.6 Dissemination and Communication Actions Survey

A great participation (63% of the people registered), with a total of 78 attendees from 44 companies was achieved during the first webinar. At the end a questionnaire was sent to the attendees, and 42 (54%) of them provided their feedback. In general, the webinar had a great acceptance and 90% will join the next event.

For the concluding webinar the participation increased and 65% of the people registered attended to the webinar. In total there were 116 attendees (about 50% more than in 2021) from 57 companies. Again, a questionnaire was sent to the attendees at the end of the event, and 27 (23%) of them provided their feedback. In general, the attendees were satisfied with the event. The results achieved on the pilot, the lessons learned, the technology itself and its promising future, the alternative feeding materials for the ΣIDERWIN process, the flexible potential, ... were some of the most interesting topics highlighted by the attendees.

The webinars were recorded and made them available on the YouTube channel of the project. Links to the videos are available on the website and social media and were sent to people who registered for the event.

The slides of both presentations were also made available on the website in the section Documents>Others>Presentations and Others.

### 4.12 Participation at exhibitions, fairs, and workshops

The consortium participated in different exhibitions, fairs and workshops.

HydroMetEC is a lifelong learning program organized within EIT Raw Materials academy and coordinated by NTNU. It is an educational and communication programme to educate professional metallurgists, engineers and students in primary and secondary raw materials and their treatments through hydrometallurgical processes to extract valuable metals and to promote circular economy in raw materials sectors.

The HydroMeTEC 2021 edition was hold online and NTUA participated with a video showing a laboratory demonstration of the electrochemical recovery of metallic iron from bauxite residue in aqueous alkaline solutions.



Figure 20. Cover slide of NTUA video for HydroMeTEC 2021

## D8.6 Dissemination and Communication Actions Survey

In November 2021 Bilbao Exhibition Center hold the 1<sup>st</sup> edition of the International Congress and Expo *Steel Tech 2021*. At the TECNALIA's stand was located the ΣIDERWIN roll up, and a QR code provided access to the website and the video. Flyers were also available at the stand.



Figure 21. International Congress and Expo Steel Tech 2021

The 2<sup>nd</sup> edition of the Steel Tech Congress and Expo 2023 will be held at the end of October with the participation of TECNALIA.

### 4.13 Other activities

The partners conducted internal presentations/communications at their organisations to show the goals/progress of the project and contributed to the project dissemination with communications in the media and in their day-to-day during visits with clients or meetings with other parties.

Amanda Jasi wrote an article about green steel made through electrowinning for The Chemical Engineer feature, in its February 2023 issue, where she talked about the ΣIDERWIN project.



Figure 22. The Chemical Engineering Feature - Electrochemistry for Greener Steel (February 2023)



## D8.6 Dissemination and Communication Actions Survey

In addition, a few days after the ΣIDERWIN concluding webinar, the independent journalist Hanno Böck who has been covering climate change in various publications (mostly German) for more than a decade, wrote a dedicated article in his Industry Decarbonization Newsletter.

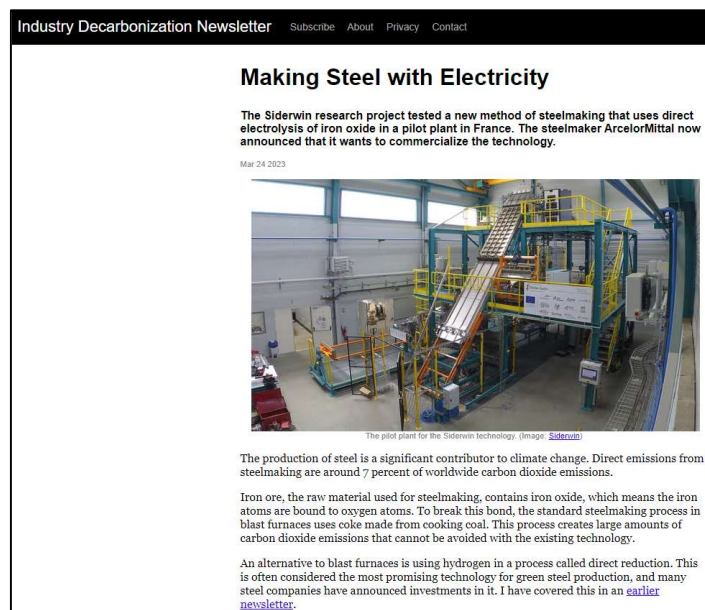


Figure 23. Industry Decarbonization Newsletter by Hanno Böck (March 2023)

### 4.14 KPIs performance and evaluation

Some quantitative indicators have been defined for the purposes of evaluating the ΣIDERWIN dissemination activities. Table 9 shows the real values for each metric of defined KPIs at the reporting periods, that is, M1- M18, M19-M36, M37-M54 and M55-M66, as well as the target value for the last 12 months and the real values from M1 to M66.

Regarding the publications in journals, conferences and trade journals, the estimated figures have proved to be very ambitious and there have been deviations in the KPIs set during the last months of the project. The paper submitted by TECNALIA to Hydrometallurgy that it was under revision, it has just been rejected. However, in a few weeks it will be submitted to another journal that focuses on software and technology.

KPI4 indicates the expected number of participants for the ΣIDERWIN concluding webinar, which was slightly exceeded, with a total of 180 people registered for the event. Some of them were not able to attend the live webinar but they sent an email to request the recording.

## D8.6 Dissemination and Communication Actions Survey

**Table 9. Key Performance Indicators and metrics for the evaluation of the dissemination activities, real values for M18, M36, M54 and M66, target values for final stage (M55-M66) and values from M1 to M66**

ID	Indicator	Metrics	Real Value (M1-M18)	Real Value (M19-M36)	Real Value (M37-M54)	Target Value (M55-M66)	Real Value (M55-M66)	Real Value (M1-M66)
KPI1	General public awareness through the website and social media	Number of visits on the project website	108 visits per month	181 visits per month	319 visits per month	400 visits per month	371 visits per month	249 visits per month
		Number of presentations uploaded to the Website/SlideShare	2	2	2	3	1 (+1*)	6
		Number of videos uploaded to Website/Youtube	1	2	4	4	1	8
KPI2	Awareness of the Scientific Community interest	Number of papers in scientific journals	0	2	6	10	4 (+1**)	17 (+4**)
		Number of presentations in scientific conferences/workshops	2	7	6	10	3	21
KPI3	Awareness of the industrial Community interest	Number of papers in trade journals	3	2	1	6	3	9
		Number of participations at events with industry (fairs, exhibitions, workshops...)	3	2	2	4	(+1***)	7 (+1***)
		Number of Interest expressions from industry to receive more information + industrial members of the Special Interest Group (SIG)	16	16	9	15	5	46
KPI4	ΣIDERWIN concluding webinar	ΣIDERWIN final workshop (Number of people attending to the final ΣIDERWIN workshop)	N/A	N/A	N/A	100	116	116
KPI5	First ΣIDERWIN webinar	First ΣIDERWIN webinar	N/A	N/A	78	78	78	78

\* Soon available  
 \*\* To be submitted  
 \*\*\* Planned for October 2023

## 5 Conclusions

This report corresponds to deliverable “Dissemination and Communication Action Survey” for the ΣIDERWIN project, and describes the key elements of the strategy that have been defined by the consortium for achieving proper project dissemination:

1. **The objectives** (*why*, mission & vision) → to spread the ΣIDERWIN’s results to the largest possible concerned audience (at the national, European and international level) in order to promote the implementation and use of the project results (exploitation).
2. **The subjects** (*what* will be disseminated) → the ΣIDERWIN project itself and its results together with the all the techniques/methodologies used for the project technical development.
3. **The timing** (*when* dissemination will take place) → three main phases are considered: 1) initial phase (*Awareness*) focused on increasing the project visibility and mobilising stakeholders and multipliers; 2) intermediate phase (*Interest/Desire*) focused on informing and engaging to the target stakeholders when preliminary results become available; 3) final phase (*Action*) focused on encouraging further exploitation of the ΣIDERWIN outcomes (transfer to other industries, replicability...).
4. **The target audience** (*to whom* it will be disseminated) → Industrial Community, Scientific Community, Financial Community, Policy makers, “Internal” Community (ΣIDERWIN partners) and General public.
5. **The tools and channels** (*how* to reach the target audience) → website, social networks, channels offered by the EC and A.SPIRE, dissemination material distribution, ΣIDERWIN Special Interest Group creation and mainly the presentation of the ΣIDERWIN results at scientific & trade journals, conferences, workshops and trade fairs. The report provides a list of potential journals, conferences, and fairs where the ΣIDERWIN results could be presented.
6. **The responsible** (*who* will perform the dissemination) → all partners of the consortium contributed to the ΣIDERWIN dissemination during the whole project lifetime.
7. **The rules** for performing the dissemination activities.
8. **The way to evaluate and assess the impact** of the dissemination activities, defining and monitoring KPIs for the different periods of the project.

The report also includes a description of the actions carried out during the project (M1 to M66). The main results of the activities performed until the writing of this report are:

- 21 papers on International Conferences have been presented and published.
- 17 papers on Scientific Journals have been published.
- 4 papers on Scientific Journals are planned for the near future.
- 1 PhD Thesis Defense by Daniela V. Lopes from the University of Aveiro.
- 1 MSc Thesis Defense by Francisco Duarte from the University of Aveiro.
- 6 presentations have been uploaded to the website.

## D8.6 Dissemination and Communication Actions Survey

- 8 videos have been published on the website (2 of them are the webinars recordings).
- 8 newsletters have been produced, sent to the SIG members, and made available on the web.
- Initial flyer has been produced and upload to the website.
- Final flyer will be produced and upload to the website once deliverable D5.7 Final test results is available.
- 46 people registered to the SIG.
- 78 people of the 124 registered attended the first webinar.
- 116 people of the 180 registered attended the concluding webinar.
- The web page was regularly updated. There have been 15,726 visits to the ΣIDERWIN web during this period (average: 249 visits per month).



## References

- [ 1 ] <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/2030-energy-strategy>
- [ 2 ] [SIDERWIN Webinar-SlidesPack 20230323.pdf; DOI: 10.5281/zenodo.7785032](#)
- [ 3 ] [SIDERWIN D7.6 Techno-economic assessment and life cycle costing final report; 2023](#)
- [ 4 ] [https://ec.europa.eu/growth/sectors/raw-materials/industries/metals/steel\\_en](https://ec.europa.eu/growth/sectors/raw-materials/industries/metals/steel_en)
- [ 5 ] [https://worldsteel.org/steel-topics/statistics/annual-production-steel-data/?ind=P1\\_crude\\_steel\\_total\\_pub/CHN/IND/IRL](https://worldsteel.org/steel-topics/statistics/annual-production-steel-data/?ind=P1_crude_steel_total_pub/CHN/IND/IRL)
- [ 6 ] <https://www.european-aluminium.eu/>

## Annex I: Technological platforms and Associations with involvement of ΣIDERWIN partners

Acronym	Axelera	
Name	AXELERA	
Web	<a href="https://www.axelera.org/">https://www.axelera.org/</a>	
Profile	Cluster	
Domain	Chemical and environmental sectors	
Scope	French	
Partners involved & Type of involvement	CFD – Numerics	Member

Acronym	ESNL	
Name	Energy Storage NL	
Web	<a href="https://www.fme.nl/brancheverenigingen/energy-storage-nl">https://www.fme.nl/brancheverenigingen/energy-storage-nl</a>	
Profile	Interest Group	
Domain	Energy Storage	
Scope	Netherlands	
Partners involved & Type of involvement	RECOY	Member

Acronym	ESTEP	
Name	European Steel Technological Platform	
Web	<a href="https://www.estep.eu">https://www.estep.eu</a>	
Profile	Technological Platform	
Domain	Steel	
Scope	European	
Partners involved & Type of involvement	AM	Member
	TECNALIA	Working groups (Automotive, Environment)

## D8.6 Dissemination and Communication Actions Survey

<b>Acronym</b>	EURELECTRIC	
<b>Name</b>	The Union of the Electricity Industry	
<b>Web</b>	<a href="http://www.eurelectric.org">http://www.eurelectric.org</a>	
<b>Profile</b>	European electricity association	
<b>Domain</b>	Electricity industry	
<b>Scope</b>	Europe	
<b>Partners involved &amp; Type of involvement</b>	EDF	Member

<b>Acronym</b>	EUROFER	
<b>Name</b>	The European Steel Association	
<b>Web</b>	<a href="http://www.eurofer.org/">http://www.eurofer.org/</a>	
<b>Profile</b>	Technological Platform	
<b>Domain</b>	Steel	
<b>Scope</b>	European	
<b>Partners involved &amp; Type of involvement</b>	AM	Member

<b>Acronym</b>	European Aluminium	
<b>Name</b>	European Aluminium Association	
<b>Web</b>	<a href="https://www.european-aluminium.eu/">https://www.european-aluminium.eu/</a>	
<b>Profile</b>	Association representing the Aluminium industry in Europe	
<b>Domain</b>	Aluminium	
<b>Scope</b>	European	
<b>Partners involved &amp; Type of involvement</b>	Mytilineos	Member of the Alumina and Primary Aluminium Producers

## D8.6 Dissemination and Communication Actions Survey

<b>Acronym</b>	FAN	
<b>Name</b>	Flexible power Alliance Network	
<b>Web</b>	<a href="https://flexible-energy.eu">https://flexible-energy.eu</a>	
<b>Profile</b>	Technological Platform	
<b>Domain</b>	Power Industry	
<b>Scope</b>	European	
<b>Partners involved &amp; Type of involvement</b>	RECOY	Member

<b>Acronym</b>	FME	
<b>Name</b>	Federatie Metaal - en Elektrotechnische Industrie	
<b>Web</b>	<a href="https://www.fme.nl">https://www.fme.nl</a>	
<b>Profile</b>	Interest Group	
<b>Domain</b>	Industry wide	
<b>Scope</b>	Netherlands	
<b>Partners involved &amp; Type of involvement</b>	RECOY	Member

## D8.6 Dissemination and Communication Actions Survey

<b>Acronym</b>	FoF / EFFRA	
<b>Name</b>	<p>FoF - Factories of the Future</p> <p>EFFRA - European Factories of the Future Research Association</p>	
<b>Web</b>	<p><a href="https://ec.europa.eu/research/industrial_technologies/factories-of-the-future_en.html">https://ec.europa.eu/research/industrial_technologies/factories-of-the-future_en.html</a></p> <p><a href="http://www.effra.eu">www.effra.eu</a></p>	
<b>Profile</b>	<p>FoF – PPP of H2020</p> <p>EFFRA - Association representing the FoF PPP Private Side</p>	
<b>Domain</b>	Advanced manufacturing	
<b>Scope</b>	European	
<b>Partners involved &amp; Type of involvement</b>	TECNALIA	Member of the Advisory Group

<b>Acronym</b>	H2 Platform	
<b>Name</b>	H2 Platform	
<b>Web</b>	<a href="https://opwegmetwaterstof.nl">https://opwegmetwaterstof.nl</a>	
<b>Profile</b>	Interest Group	
<b>Domain</b>	Hydrogen	
<b>Scope</b>	Netherlands	
<b>Partners involved &amp; Type of involvement</b>	RECOY	Member

## D8.6 Dissemination and Communication Actions Survey

<b>Acronym</b>	MANUFUTURE	
<b>Name</b>	Future Manufacturing Technologies	
<b>Web</b>	<a href="http://www.manufuture.org/">http://www.manufuture.org/</a>	
<b>Profile</b>	European Technological platform	
<b>Domain</b>	Process Industry, advanced manufacturing	
<b>Scope</b>	European	
<b>Partners involved &amp; Type of involvement</b>	TECNALIA	Member of the Steering Committee

<b>Acronym</b>	SPIRE	
<b>Name</b>	Sustainable Process Industry through Resource and Energy Efficiency	
<b>Web</b>	<a href="https://www.spire2030.eu/">https://www.spire2030.eu/</a>	
<b>Profile</b>	PPP of HORIZON 2020	
<b>Domain</b>	Process Industry	
<b>Scope</b>	European	
<b>Partners involved &amp; Type of involvement</b>	AM	Member
	NTNU	Member
	TECNALIA	Participant of the Steering Committee and all the working Groups (Feed, Process, Application, Waste)

## D8.6 Dissemination and Communication Actions Survey

<b>Acronym</b>	UFE	
<b>Name</b>	Union Française de l'Electricité	
<b>Web</b>	<a href="http://www.ufe-electricite.fr">http://www.ufe-electricite.fr</a>	
<b>Profile</b>	French electricity association	
<b>Domain</b>	Electricity industry	
<b>Scope</b>	France	
<b>Partners involved &amp; Type of involvement</b>	EDF	Chairmans of the following Commissions: Marchés et Système Electrique; Electricité Renouvelable et Territorie; Prospective et Innovation

## Annex II: ΣIDERWIN videos

This annex depicts some screenshots of the ΣIDERWIN videos.



Figure 24. Some screenshots of first ΣIDERWIN video with subtitles



Figure 25. John Cockerill Awards 2020 to ΣIDERWIN



Figure 26. ΣIDERWIN Pilot Plant Building erection

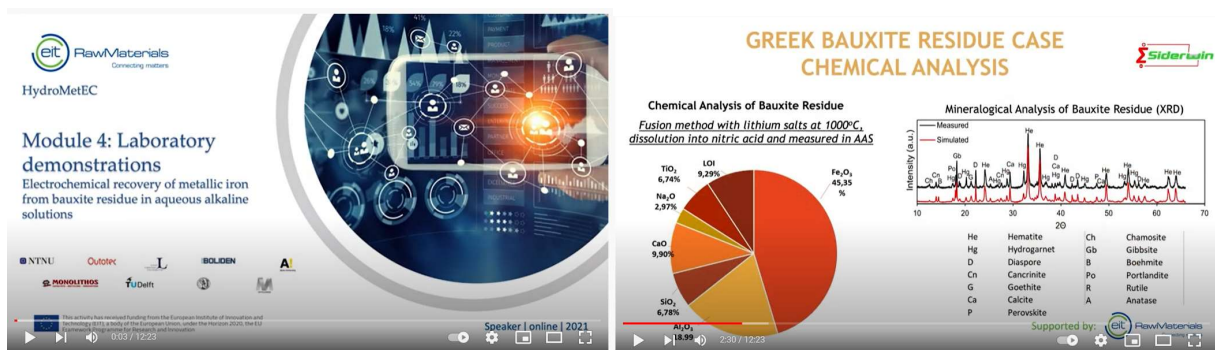


Figure 27. Some screenshots of NTUA video for HydroMetEC Learning Course



## D8.6 Dissemination and Communication Actions Survey

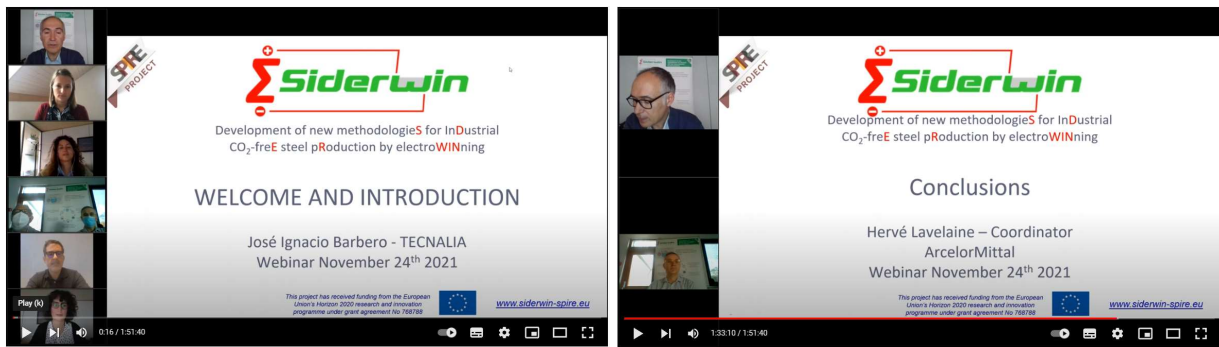


Figure 28. SIDERWIN webinar 2021/11/24



Figure 29. SIDERWIN full-size pilot installation time-lapse video

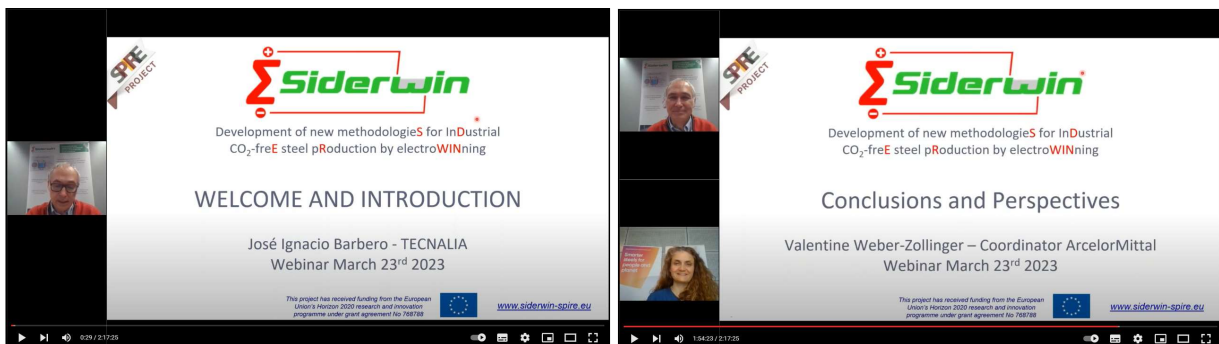


Figure 30. SIDERWIN webinar 2023/03/23

## D8.6 Dissemination and Communication Actions Survey

### Annex III: SIDERWIN Newsletters

This annex depicts the eight issues of the SIDERWIN Newsletters.

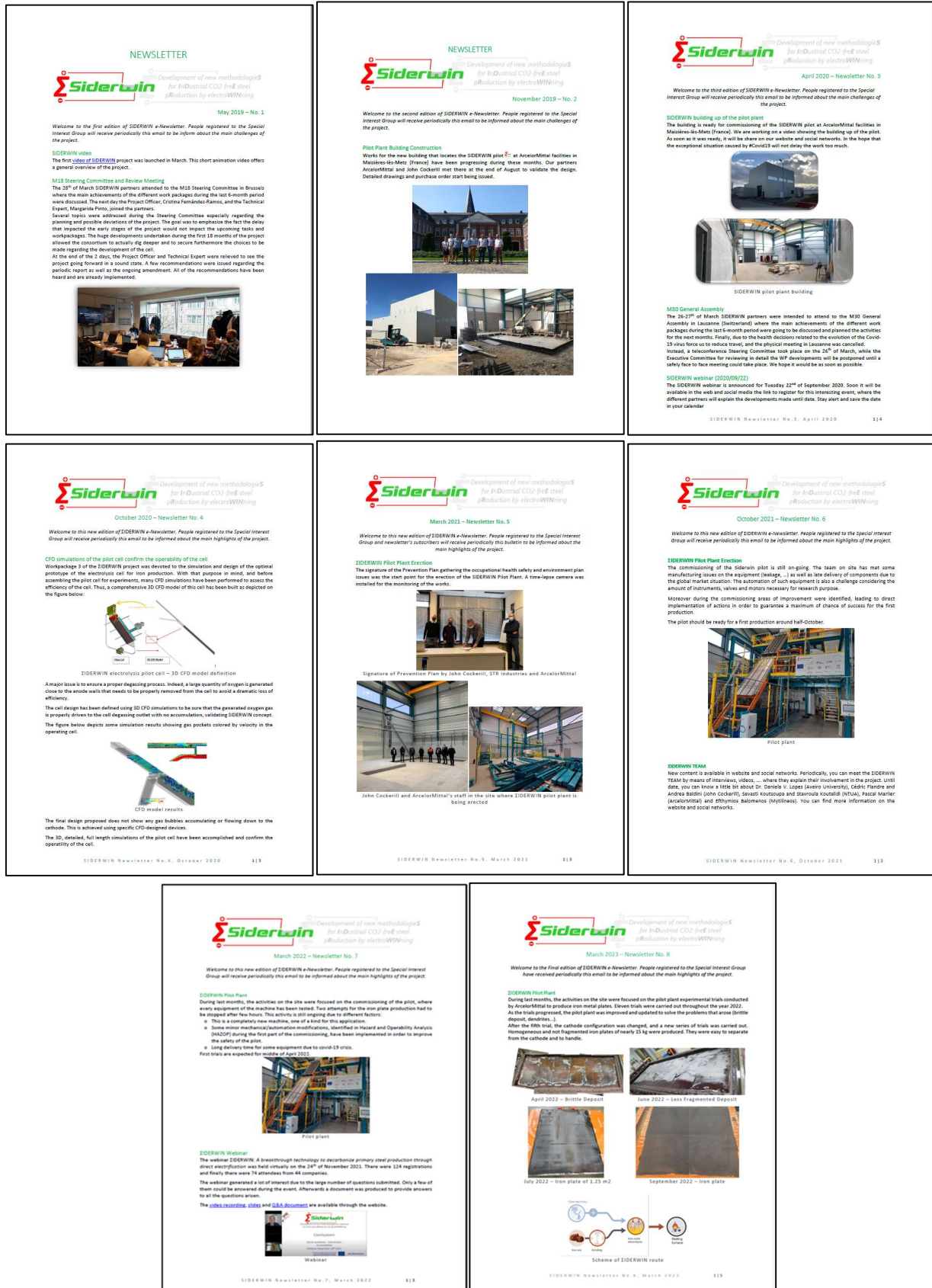


Figure 31. SIDERWIN newsletters front pages