

Grant Agreement No.: 760941

Project acronym: RESISTANT

Project title: Large riblet surface with super hardness, mechanical and temperature resistance by nano functionalization

Call (part) identifier: H2020-NMBP-PILOTS-2017

Topic: PILOTS-03-2017 Pilot lines for manufacturing of nanotextured surfaces with mechanically enhanced properties

Starting date of project: 1st of January, 2018

Duration: 48 months

WP 10 – Dissemination

Deliverable D10.6 – Report on Dissemination and Communication activities III

Due date of deliverable: **31st December 2020**

Actual submission date: **18th December 2020**

Organisation name of lead contractor for this deliverable: PRODINTEC (IDONIAL)

Dissemination Level		
CO	Confidential, only for members of the consortium (including the Commission Services)	
PU	Public	X

DISCLAIMER: This publication reflects only the author's view. The Commission is not responsible for any use that may be made of the information it contains

Table of Contents

List of abbreviations / Nomenclature	3
1 Introduction	4
2 Online activities	5
2.1 Updates of the website, project identity and public image	5
2.2 Project promotional materials / communication toolkit.....	6
2.3 Project media presentations and distribution of press release	7
2.4 Periodic e-newsletter	8
2.5 Social networking tools	11
2.6 Project information distribution and related news	14
3 Onsite activities	18
4 Impact	19
5 Conclusions	21
6 References.....	24

List of abbreviations / Nomenclature

Abbreviation	Definition
WP	Work package
GA	General Assembly

1 Introduction

The present document constitutes Deliverable D10.6 in the framework of the project “Large Riblet Surface with Super Hardness, Mechanical and Temperature Resistance by Nano Functionalization” (Project Acronym: ReSiSTant; Contract No.: 760941). This document is the result of the activities performed within the framework of work package 10 (WP10): “Dissemination”, and more specifically of Task 10.1 “Dissemination strategy and implementation” and Task 10.2 “Release and maintenance of a public website” led by IDONIAL (aka PRODINTEC) and in collaboration with the rest of the consortium partners.

ReSiSTant intends to develop, upscale and industrially demonstrate up to TRL7 reliable manufacturing processes to obtain nanostructured riblet surfaces to be applied in Aircraft Turbofan Engines and Industrial Compressors (two demonstrators) to reduce drag and the related fuel consumption and emissions. In this sense, the main aim of the dissemination activities – reported in the present document - is to create a suitable framework for awareness following a coherent strategy, including:

- ▶ To spread ReSiSTant project results and its deliverables beyond the consortium among relevant stakeholders, scientific and industrial community.
- ▶ To perform networking actions that foster dialogue inside and outside RDI and industrial communities to facilitate cooperation among other NMBP Pilot topic projects.
- ▶ To improve awareness of the potential and environmental benefits when nanocoatings/materials are used in turbomachinery manufacturing, as well as the existing European knowledge, capabilities and developments among stakeholders

The website will be updated during the project and will be active for at least a year after the project. All partners from the consortium will provide content to update the website. A methodology for a regular collection of content will be provided.

This document describes in detail the set of Dissemination and Communication activities during the second year of the project (Month 25 (January 2020) to Month 36 (December 2020)).

2 Online activities

This section includes all the online activities carried out by ReSiSTant consortium for project dissemination.

2.1 Updates of the website, project identity and public image

As detailed on Deliverable D10.2. *Public Website online*, the WP10 Leader (IDONIAL, aka PRODINTEC) was responsible of project identity and public identity, as well as, the creation of the website. All partners contributed to create the content (text and images). The project website is accessible through [1] and it is valid for PCs or laptops as well as for mobile devices. Figure 1 shows the web appearance under both types of devices. During this year, the website content was updated.

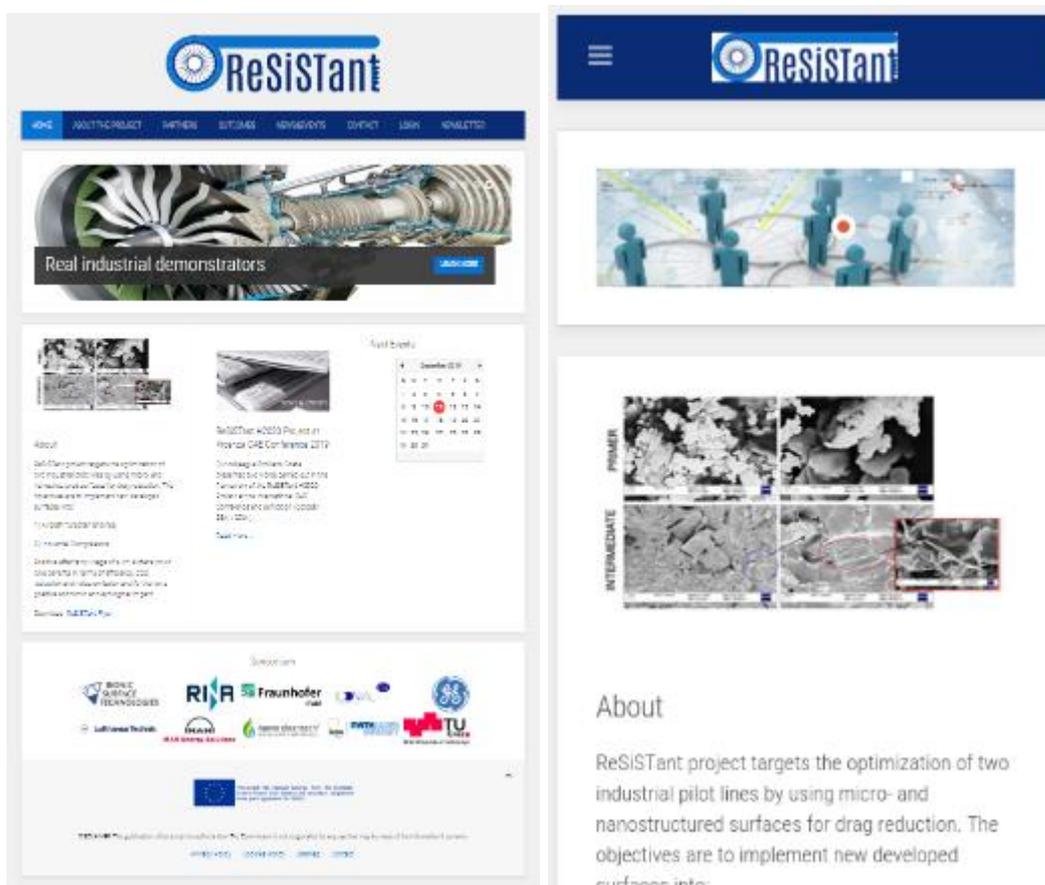


Figure 1. ReSiSTant website: Screenshot from PC/Laptop (left) and from mobile (right)

The website is user friendly and is structured on the following sections: (1) *Home*, (2) *About*, (3) *Partners*, (4) *Outcomes*, (5) *News&Events*, (6) *Contact*, (7) *Login* and (8) *Newsletter*. The website was updated with regular information and several changes were required, such as:

- ▶ *Home* section includes updates on the latest news and events (calendar). → updates on consortium logos due to changes on public image of some partners (BIONIC, LUFTHANSA and IDONIAL (aka PRODINTEC)). It also affected other sections such as *About the project* or *Partners*.
- ▶ *Outcomes* section includes public project deliverables. → New deliverables/e-newsletters were uploaded.
- ▶ *News&Events* section details related project news. → More than four news from 2020 were

created.

- ▶ *Next events* includes a calendar where relevant events are updated. → The calendar included project related events (7) during the year.
- ▶ *Newsletter* includes the register to be part of project distribution list. → It was updated regarding legal framework.

There is also a Member area which is private and exclusive for project partners. It is accessible through *Login* section and its content was regularly refreshed.

2.2 Project promotional materials / communication toolkit

Since the project beginning some promotional materials and a communication toolkit have been prepared as presented below:

- **Project promotional material:** at this moment, a poster / flyer (Figure 2) has been created for a general audience. It includes general information of the project such as objectives, roadmap, consortium or website. During the project, new versions will be created according to target audiences. During the period Month 13 to Month 24, this flyer was updated due to changes on partner's logo (BIONIC, LUFTHANSA and IDONIAL (aka PRODINTEC)).



Figure 2. ReSiSTant flyer / poster (most recent version)

This flyer/poster can be found in an electronic manner, through the project website (section Outcomes:[2]). In addition, BST and IDONIAL have been working on the design of two folders and roll-ups for each demonstrator. Hence, there will be promotional material targeted to each sector needs (aerospace and industrial compressors). The content is under development and will be agreed with all partners.

- **Communication toolkit:** this is an exclusive set of documents for the consortium and it is accessible through the Member area. It includes project logo, presentation template and project flyer/poster. This communication toolkit is updated when new versions of the documents are created. At this moment, four versions of the communication toolkit were created due to changes of partner's logos.
- **Other documents:** related project documents (templates for meeting minutes or project reports) include the project logo in order to provide a unique project image. A new version was created due to changes of partners' public image.

2.3 Project media presentations and distribution of press release

In September 2018, WP10 Leader (IDONIAL aka PRODINTEC) provided the **first project press release** to ReSiSTant partners (English version), agreed and reviewed by all partners. The translation of press release to official languages of the rest of partners was responsibility of each partner. During 2019, some partners (e.g. IDONIAL) include this press release on their website in order to maximize project impact.

During 2020, the consortium has done an important effort to disseminate the project and WP10 team has prepared and published an **article about the project on Open Access Government Journal – April 2020 Edition** [27]. The final appearance of the article is shown on Figure 3.

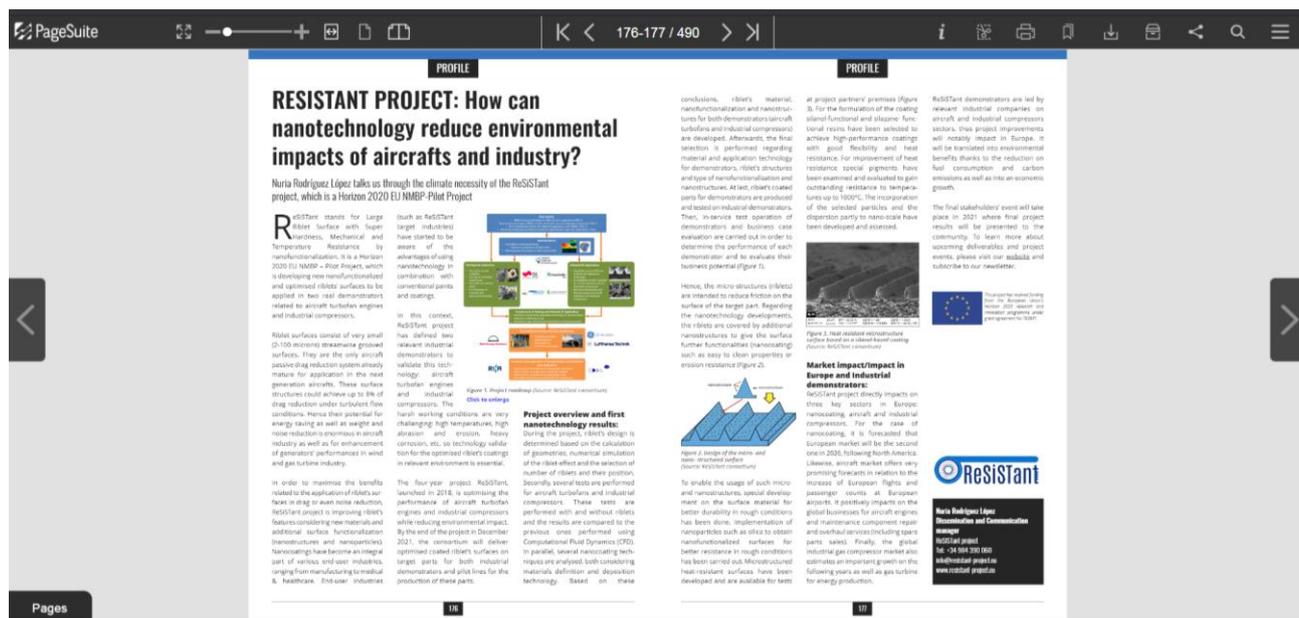
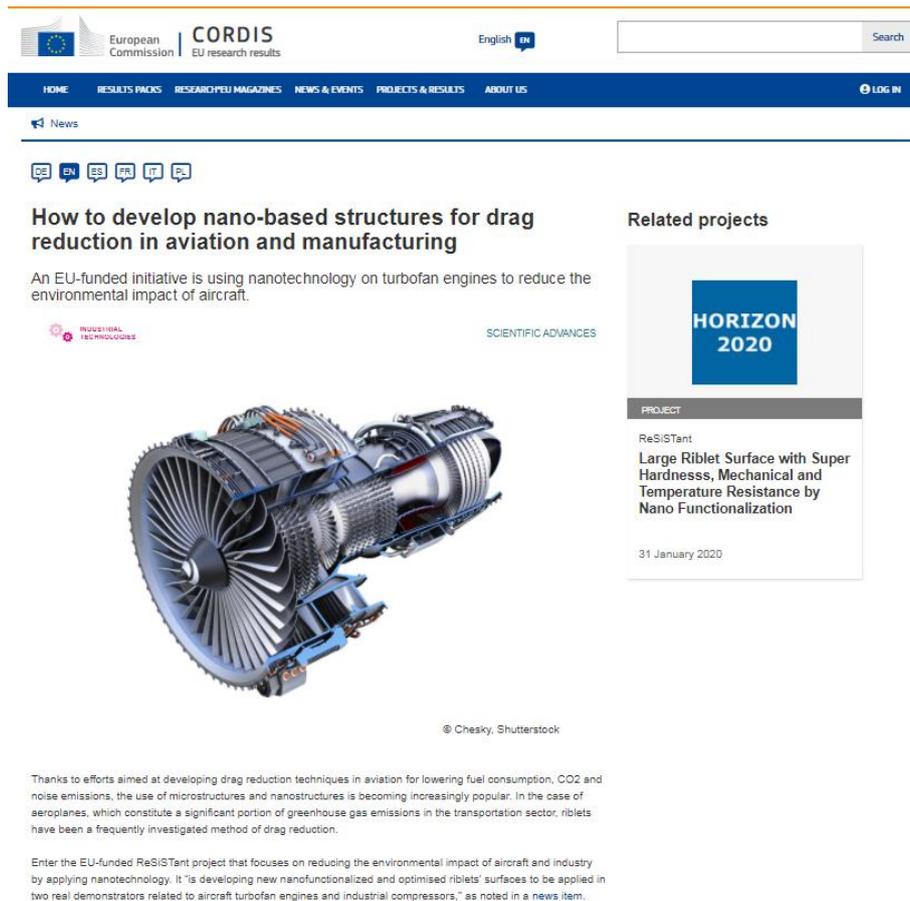


Figure 3. ReSiSTant article on Open Access Government Journal

CORDIS team has prepared a new related to the project based on existing information. It was created in 6 languages (English, French, German, Spanish, Italian and Polish) and it can be found on “News & Multimedia” section on CORDIS website [28]. The English version of the new can be found on Figure 4.



The screenshot shows the ReSiSTant project website interface. At the top, there is a navigation bar with the European Commission logo, the CORDIS logo, and a search bar. Below the navigation bar, there is a main content area with a news article titled "How to develop nano-based structures for drag reduction in aviation and manufacturing". The article text states: "An EU-funded initiative is using nanotechnology on turbofan engines to reduce the environmental impact of aircraft." To the right of the article, there is a "Related projects" section featuring a "HORIZON 2020" project card for "ReSiSTant: Large Riblet Surface with Super Hardness, Mechanical and Temperature Resistance by Nano Functionalization", dated 31 January 2020. Below the article, there is a 3D rendering of a turbofan engine with a blue and silver color scheme. The image is credited to "© Chesky, Shutterstock".

Figure 4. CORDIS new about ReSiSTant project

The project website reflects these actions and they are reflected on the website content (news, calendar...) or even on the project e-newsletter, when required.

2.4 Periodic e-newsletter

Periodic e-newsletters have been created during the third year of the project. This year, two e-newsletter were created and distributed:

- 4th e-newsletter: this was the fourth newsletter and it was distributed among partners. Based on the impact of the first and second newsletter, several improvements were implemented as detailed below following the same criteria as for 3rd e-newsletter. This newsletter is similar to the third one and it is shown on Figure 5.
- Project logo: by clicking it, the user is redirected to project website.
- Title: "eNewsletter – March 20".
- New section to attract the attention of the subscribers.
- Latest news: informing about project 5th project meeting in Rome and a link to the related entry on the project website. Information about past events where project partners presented the project (RINA-C attending International CAE Conference).
- Where can you find us?: information about coming events which will be attended by project partners and where ReSiSTant project will be presented somehow. It includes direct links to website calendar where such events are detailed.
- Recent project outcomes: the deliverables which were published or updated recently,

can be found on this section, through a link to the project website where they can be downloaded.

- Do you want to be updated?: instructions about how the interested audience can register themselves within the newsletter distribution list
- Consortium: logos of the partners, to show an overview of its potential.
- “Visit us” button: easy and user friendly manner to increase website accesses.
- EC logo and project information: mandatory information about EC funding and project information according to Grant Agreement.
- Social Media sharing tools: some direct links to share the newsletter through Twitter or by e-mail were included at the end of the newsletter.

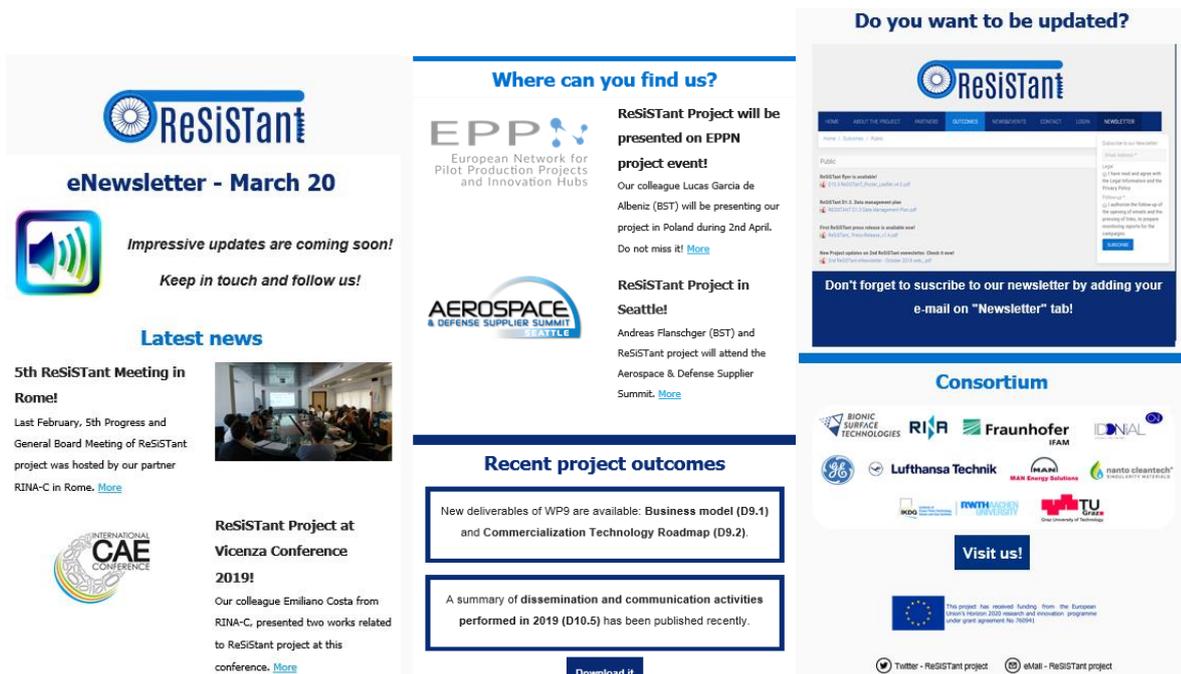


Figure 5. 4th ReSiSTant e-newsletter

Next, a brief description of 5th e-newsletter:

- 5th e-newsletter: this was the fifth newsletter and it was distributed among partners. Based on the impact of the previous newsletters, several improvements were implemented as detailed below following the same criteria as for 3rd and 4th e-newsletter. This newsletter is similar to the previous one and it is shown on Figure 5.
- Project logo: by clicking it, the user is redirected to project website.
- Title: “eNewsletter – November 20”.
- Latest news: informing about project 6th project virtual meeting in Aachen and a link to the related entry on the project website. Information about project publications performed by our project communication and dissemination manager in other H2020 project newsletters or on high impact journals. Information about past events where project partners presented the project (BST attending 10th Aviation Forum in Hamburg).
- Where can you find us?: information about coming events which will be attended by project partners and where ReSiSTant project will be presented somehow. It includes direct links to website calendar where such events are detailed. It can also include

events related to the project topic.

- Recent project outcomes: the deliverables which were published or updated recently, can be found on this section, through a link to the project website where they can be downloaded.
- New section - Contribute to our community: a new section where creating synergies with other projects and creating a community related to the project topics. This new section is the result of needing to create awareness about the project while project events are launched.
- Do you want to be updated?: instructions about how the interested audience can register themselves within the newsletter distribution list
- Consortium: logos of the partners, to show an overview of its potential.
- “Visit us” button: easy and user friendly manner to increase website accesses.
- EC logo and project information: mandatory information about EC funding and project information according to Grant Agreement.
- Social Media sharing tools: some direct links to share the newsletter through Twitter or by e-mail were included at the end of the newsletter.



Figure 6. 5th ReSiSTant e-newsletter

The newsletters have been shared through social media as detailed on section 2.5. They have been also uploaded on “Outcomes” section and sent by e-mail to the audience registered through the website.

2.5 Social networking tools

All partners have contributed to make the project is present on social media. Next, a review of activities carried out, using social networking tool selected on the project dissemination plan.

Table 1. List of ReSiSTant activities in social networking tools

#	Type	Date	Description	URL
1	IDONIAL LinkedIn	March 2020	Information about ReSiSTant project updates (4 th e-newsletter).	[16]
2	IDONIAL Twitter	March 2020	Information about ReSiSTant project updates (4 th e-newsletter – English version).	[19]
3	IDONIAL Twitter	March 2020	Information about ReSiSTant project updates (4 th e-newsletter – Spanish version).	[18]
4	IDONIAL website	April 2020	New about ReSiSTant project updates (Spanish version)	[5]
5	IDONIAL website	April 2020	New about ReSiSTant project updates (English version)	[6]
6	IDONIAL LinkedIn	May 2020	Information about ReSiSTant project updates (CORDIS new).	[7]
7	IDONIAL Twitter	May 2020	Information about ReSiSTant project updates (CORDIS new).	[17]
8	IDONIAL Twitter	April 2020	Information about ReSiSTant project updates (OAG publication).	[8]
9	IDONIAL LinkedIn	October 2020	Information about ReSiSTant project – 6 th General Assembly.	[15]
10	IDONIAL Twitter	October 2020	Information about ReSiSTant project – 6 th General Assembly.	[14]
11	IDONIAL Twitter	November 2020	Information about ReSiSTant project publication on other H2020 project e-newsletter (English version).	[13]
10	IDONIAL Twitter	November 2020	Information about ReSiSTant project publication on other H2020 project e-newsletter (Spanish version).	[12]
11	IDONIAL LinkedIn	November 2020	Information about ReSiSTant project publication on other H2020 project e-newsletter.	[10]
12	IDONIAL LinkedIn	November 2020	Information about ReSiSTant project updates (5 th e-newsletter).	[9]
13	IDONIAL LinkedIn	November 2020	Information about ReSiSTant project updates (5 th e-newsletter).	[11]

Next, an overview of main activities of the project related to social networking tools. Figure 7 shows a sample of ReSiSTant publications done in **LinkedIn**.

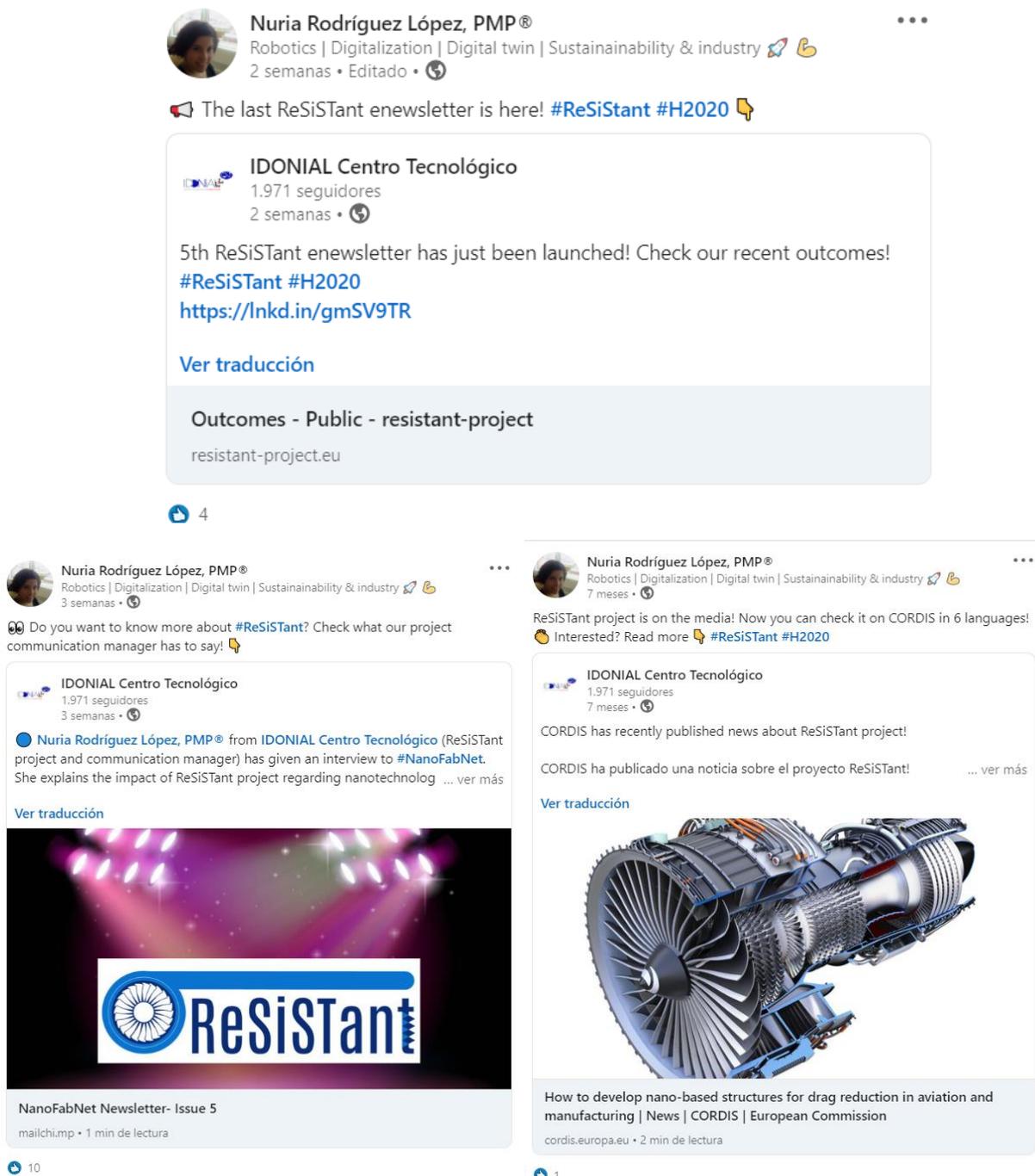


Figure 7. Samples of ReSiSTant publications on LinkedIn

Likewise, ReSiSTant is also present in other social media such as Twitter. Figure 8 shows a sample of project publications carried out on **Twitter**.

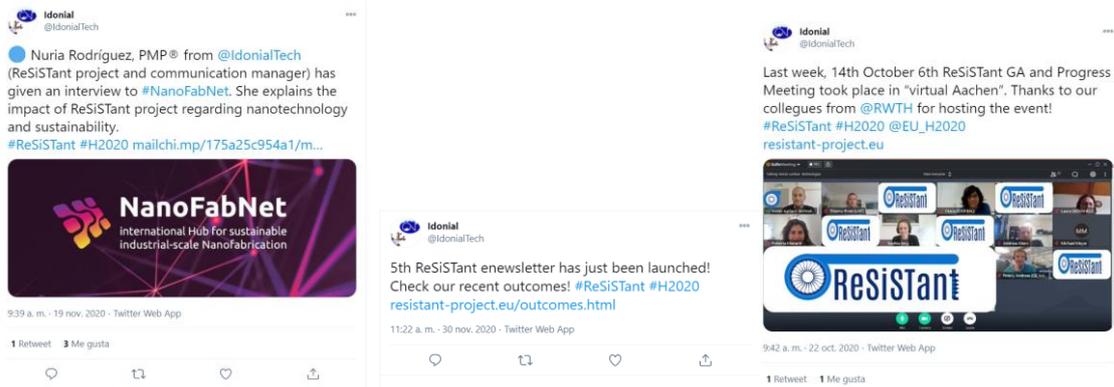


Figure 8. Samples of ReSiSTant publications on Twitter

2.6 Project information distribution and related news

The **partners** have already distributed the project **through their own website** during 2018 and this information is still present on their websites. Updated information during 2019 and 2020 is also considered:

- **BST** has included information about the project on their updated website [23].
- **IFAM** has included information about the project on their own website, on a section related to its R&D projects [21].
- **IDONIAL** on its new website, has published information about the project, where the flyer and the press release can be found [3]. New about the project and the Open Access Government publication can be found on IDONIAL website: English version [25] and Spanish version [27].
- **NANTO** has published information about this project within the section Horizon 2020 found on its website but also related news [20].
- **RINA** has published information about the Project on their Case Study section within RINA website [22].

Figure 9 shows a selection of main ReSiSTant project publications that can be found on partners' websites.



Figure 9. Selection of ReSiSTant publications on partners' websites



Last 6th April 2020, a new article about ReSiSTant project was published on Open Access Government Journal. ReSiSTant is a Horizon 2020 project aiming to reduce environmental impact of aircrafts and industry by applying nanotechnology.

The project consortium is composed of SMEs - Bionic Surface technologies and Nanto Cleantech - , Research and Technology Centers and Universites - IFAM, IDONIAL, RWTH Aachen University and TU Graz - , consultancies - RINA - and industrial leaders - General Electric, MAN Energy Solutions and Lufthansa Technik.

The article explains how micro and nanotechnology help to reduce drag on key application related to aircraft turbofan engines (Demonstrator 1) and industrial compressors (Demonstrator 2). This will help to save energy and to reduce weight and noise on these two applications led by industrial key players in the sector: General Electric and Lufthansa Technik for Demonstrator 1 and MAN Energy Solutions for Demonstrator 2. Latest results and coming events are also included on the article.

Are you willing to read the article? [Do not wait more and click](#)

Figure 10. IDONIAL website – new about project publication on Open Access Government journal (English version)

The project can be found on **CORDIS** website, provided by European Commission [4], and it was updated with information provided during first reporting period as shown on Figure 11. CORDIS team also created a new about the project that was included on the “News & Multimedia” section as explained previously.

Figure 11. ReSiSTant information on CORDIS website

Apart from Open Access Government journal publication, there is a regular new about ReSiSTant project on the website [29] as shown on Figure 12, left. In addition, the website has also fit out a section where interested users can directly contact to Project Dissemination and Communication manager (Figure 12, right). Moreover, a project banner was included on the website (Figure 13) and remains active during 2020.

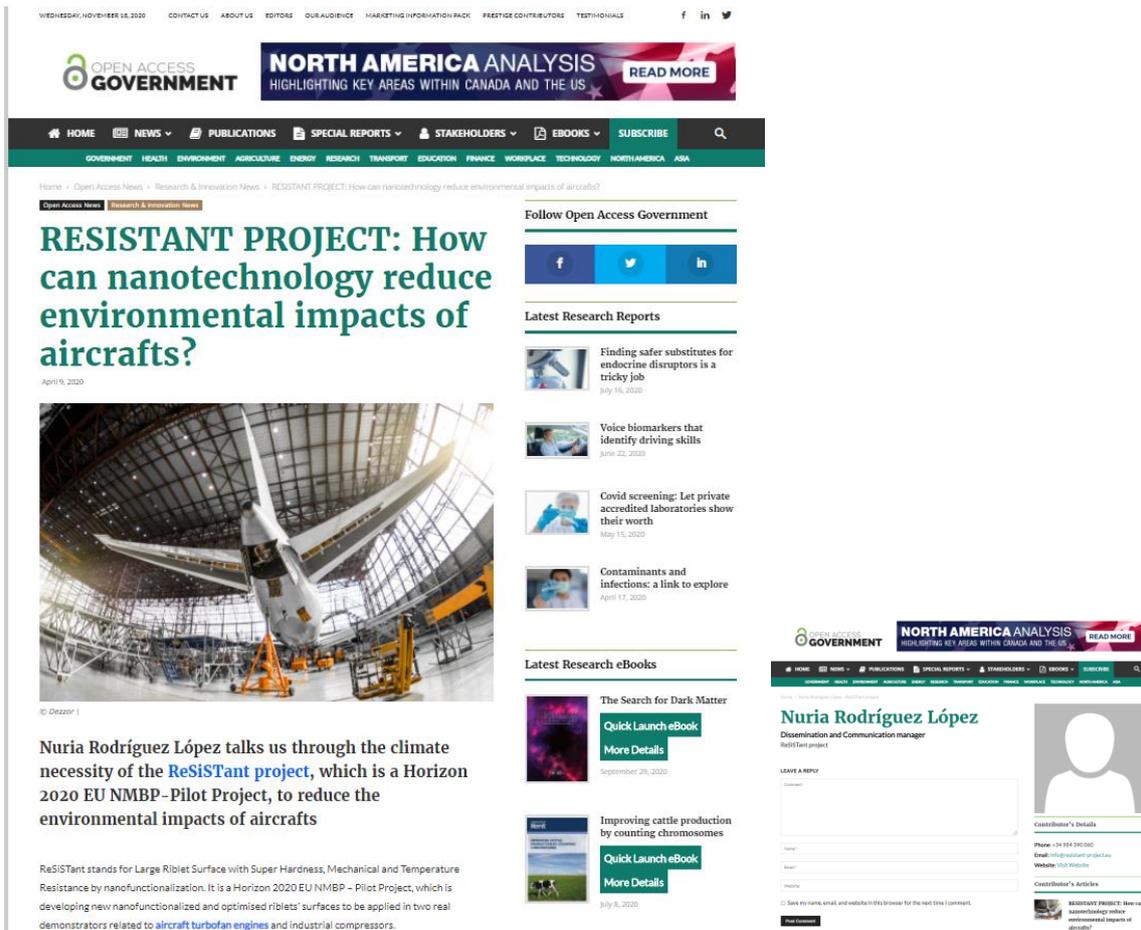


Figure 12. ReSiSTant new on Open Access Government website (left) and contact (right)

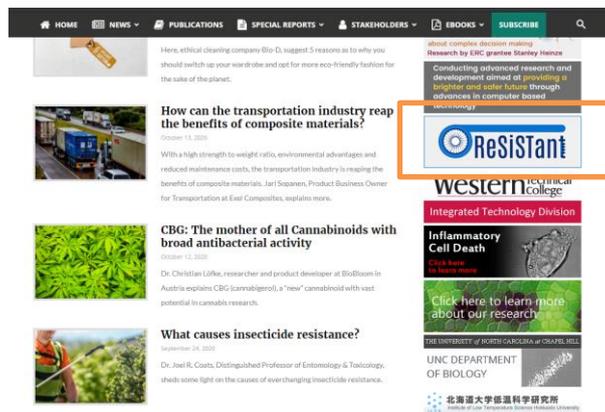


Figure 13. ReSiSTant banner on Open Access Government website

WP10 team has worked with other H2020 projects to find synergies and common collaborations. At the moment, some actions are under development but other ones have resulted into clear outcomes. This is the case of NanoFabNet (H2020 project) where our Project dissemination and Communication manager has given an interview and it was published on their e-newsletter Issue 5 – November 2020 [30]. Below a screenshot of such interview.

Stakeholder Spotlight

Nuria Rodriguez, Communications & Dissemination Manager of ReSiSTant project, speaks about their work with industrial-scale nanofabricated materials



Tell us a little about your organisation. How do the areas of nanotechnology and sustainability impact your work?

ReSiSTant – Large Riblet Surface with Super Hardness, Mechanical and Temperature Resistance by nanofunctionalization is a Horizon 2020 EU NMBP – Pilot project. The project consortium is composed of 10 partners from 6 countries representing key stakeholders from industry, research centres and universities. It aims at developing new nano-functionalized and optimised riblets' surfaces to be applied on two real demonstrators (aircraft turbofan engines and industrial compressors). Hence, nanotechnology and sustainability are linked in this project as it will achieve energy saving thanks to drag reduction as well as weight and noise decrease.

What is the newest/most innovative development in nanotechnology that your organisation is excited about now?

ReSiSTant project combines the benefits of nanotechnology and riblets. Riblet surfaces are very small (2-100 microns) streamwise grooved surfaces. These surface structures could reduce drag up to 8% under turbulent conditions. During this project, the riblets design is determined based on several criteria. Once the design is optimal, the riblets are coated by additional nanostructures giving the surface additional functionalities such as clean properties or erosion resistance (as shown on figure). These developments will be finally tested on real industrial scenarios. More information can be checked [here](#).

Figure 14. ReSiSTant interview on NanoFabNet newsletter

3 Onsite activities

This section collects all onsite activities carried out within and outside the consortium during 2020. Due to COVID-19 outbreak, most of planned activities were cancelled or others were substituted by virtual events so the list of activities of 2020 compared to the ones performed in 2018 or 2019, have been notably reduced. Next a summary of each type:

- **Oral communications (including conferences) and conference or journal papers:** it includes oral communications of ReSiSTant project. The complete list can be found on Table 2.

Table 2. ReSiSTant Oral Communications and conference or journal publications

#	Reference	Author	Status	Url	Description
1	Open Access Government Journal	Nuria Rodríguez (IDONIAL)	Done	[27]	RESISTANT PROJECT: How can nanotechnology reduce environmental impacts of aircrafts and industry? Date: April 2020

These events were disseminated through the website where photos or additional information can be checked (Calendar section from the Home).

- **Attendance to fairs and others:** it includes the attendance to fairs and others where ReSiSTant partners presented the project.

Table 3. Attendance to fairs and events

#	Exhibit	Date	Venue	Type of Audience	Organizer	Description
1	10th Aviation Forum Germany	17-18 November 2020	Hamburg (Germany)	Industry / Scientific	IPM AG	BST has attended this virtual event [24]

4 Impact

This section includes an overview of the achieved values related to ReSiSTant Key Performance Indicators. Such values can be found on Table 4.

Table 4. ReSiSTant dissemination and communication Key Performance Indicators

KPI ID	KPI Title	Value (M1- M36*)	Target value
			(Accumulative values) M36
1	Web visits	<ul style="list-style-type: none"> • 14431 visits • 2988 users • Average visit time: 2' 50" Total: 14344 visits	8.000
2	(Electronic) Material downloads / distribution (website outcomes section)	<ul style="list-style-type: none"> • Flyer: 588 • D1.3 Data management Plan: 530 • D9.1. Business model: 201 • D9.2. Commercialization Technology Roadmap: 134 • 1st Press release: 413 • 1st e-newsletter: 292 • 2nd e-newsletter: 342 • 3rd e-newsletter: 215 • 4th e-newsletter: 116 • 5th e-newsletter: 8 • Report of Dissemination and Communication activities - 2018: 161; 2019: 130 Total: 3130	70
3	Brochure / Leaflet distribution	<ul style="list-style-type: none"> • ~450-> visits to IDON (PROD) stand in GREXpo + BIEH + other partners • 588 electronic downloads Total : >1000	750
4	Project e-newsletters downloads / distribution	<ul style="list-style-type: none"> • 1st eNewsletter sent to 27 / 15 opens / 10 clicks + downloaded from website by 292 (May'18). • 2nd e-newsletter sent to 32 / 18 opens / 8 clicks + downloaded from website 	60

KPI ID	KPI Title	Value (M1- M36*)	Target value (Accumulative values)
			M36
		<ul style="list-style-type: none"> by 342 (October'18). 3rd eNewsletter sent to 21 / 12 opens / 5 clicks + downloaded from website by 215 (May'19). 4th e-newsletter sent to 24 / 13 opens / 3 clicks + downloaded from website by 116 (March'20). 5th e-newsletter sent to 26 / 14 opens / 3 clicks + downloaded from website by 8 (November'20). 3 new subscribers. <p>Total: 1103</p>	
5	Conference presentations	<ul style="list-style-type: none"> International CAE Conference: 2 presentations CAE Conference 2019: 1 presentation <p>Total: 3</p>	5
6	Published releases press	<ul style="list-style-type: none"> 1st press release (September 2018) ** Electronic downloads: 413 Sent to key media. Published by 1 regional newspaper (Spain). CORDIS new (6 languages) ** Publication on OAG – April 2020 ** <p>Total: 3 **</p>	6

* Values until start mid M36

¹ Distribution list was updated to new regulations and some contacts did not register again. However, 3 new subscribers (who were not registered before) were included on the updated list.

5 Conclusions

This document collects all activities which were detailed on the project dissemination strategy as part of dissemination and communication tasks related to the project. The monitoring of the activities was based on several Key Performance Indicators whose values for this period are collected on Table 4. In general terms, the project impact is even higher than expected as shown on such table.

Regularly, these activities were monitored and some improvements had to be performed in order to boost such impact when some weaknesses were discovered.

- **New sections on 4th and 5th e-newsletter:** despite the newsletter tab of the website, there is a low number of subscribers out of the consortium. This is the reason why the second newsletter included a section related to “how to subscribe” and it remained on the following e-newsletters. In addition, the 4th e-newsletter included a section to attract audience awareness and the 5th e-newsletter had a new section to “create community” around the project related technologies, applications, industries, etc.
- **Outcomes section:** this section was initially designed to share public deliverables. However, in order to increase project impact, other project related documents (e.g. e-newsletters or press releases) can also be found on this section. This section helps to achieve project impact objectives so project relevant documents will be still disseminated through this section.
- **CORDIS and project information:** CORDIS website updated information according to first project reporting where project flyer was also included. The CORDIS team also created a new one on the website based on project website and project publications.
- **Project wide spreading from partners:** ReSiSTant partners have also shared the project information and website through their corporate websites. IDONIAL has updated its website and has included a specific section with ReSiSTant project information including project flyer and press release. These activities have also helped to increase project impact.
- **Social media sharing and origin of website access:** additionally, the project information has been shared through Social Media to increase the project web impact (Figure 15). An analysis of website accesses (accumulative value from M1 to M36), shows that “organic search” has increased compared to the values from M1 to M24. During this period the access trends are similar to the ones of previous year: 1. Access through social media is the lowest one; 2. Now Organic search is the next one, while the previous project was Referral access. Organic search (from search engines earned, not paid) represents 11% (previous period was 14.9%). This is particularly important if the web is well positioned on such engines; 3. Referral access is the next one; 4. The first type of access origin is direct (any traffic where the referrer or source is unknown), has been reduced compared to last period. Now it represents 74.3% compared to the previous 78.2%. The problem for direct access is that cannot be controlled and it is complicated to obtain more details about where it comes from. Some possibilities for direct access are: people who enter our URL into their browser or find it via a bookmark, emails from particular email clients, mobile traffic, Secure (https) to non-secure sites (http), etc.

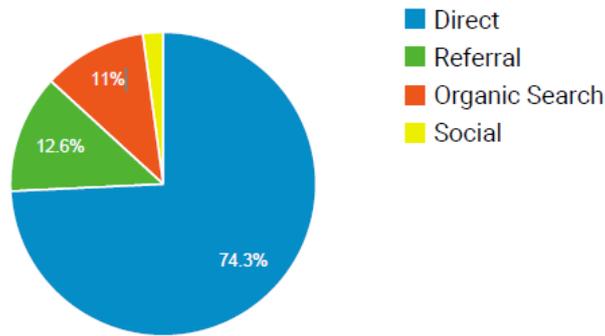


Figure 15. ReSiSTant website analytics (type of accesses) – Month M1 to M36

A deeper analysis was performed to determine the origin from Referral accesses and Organic accesses. Thus, Referral top accesses come from: Prodintec.es (idonial.com), LinkedIn.com, Facebook.

The geographical origin of the website accesses is the following: 1. Spain, 2. Germany, 3. Austria, 4. Italy, 5. Canada, 6. France, 7. Japan, 8. United States, 9. China and 10. Brazil. Many accesses come from partners' countries but there is a clear interest on other countries which are not involved in the project such as Canada, Japan, USA, Brazil or China.

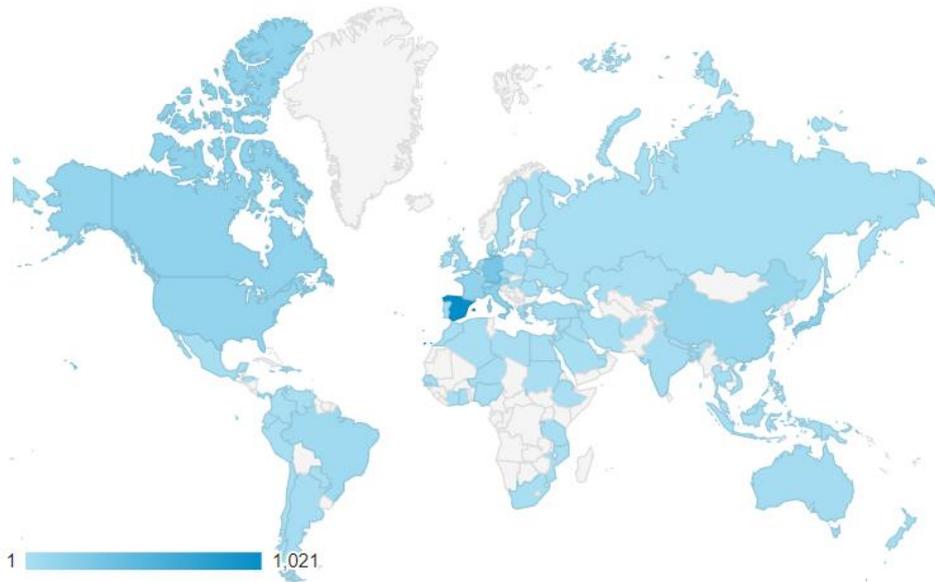


Figure 16. ReSiSTant website analytics (geographical origin) – Month M1 to M36

The public website was fully operational since May 2018 and since then, the website impact has been enormous (e.g. website visits are almost the double of target value). Now, it is well positioned in Google as “resistant project” or “resistant eu” are key words and project website is shown.

Based on this analysis, future actions are related to create the 6th e-newsletter at the beginning of year 2021 where presenting public deliverables (M36). Thus, project disseminates new content. On the other hand, during year 2020, it is expected to boost the creation of particular content focused on the different demonstrators (folders, roll-ups, etc.).



It is important to highlight that during 2020, online dissemination actions (papers, interviews, etc.) were boosted in order to balance the lack of online activities.

6 References

- [1] Project website: www.resistant-project.eu
- [2] Outcomes: <http://resistant-project.eu/outcomes.html>
- [3] ReSiSTant project on IDONIAL website: <http://idonial.com/es/component/sppagebuilder?view=page&id=59>
- [4] ReSiSTant project reporting on CORDIS: <https://cordis.europa.eu/project/id/760941/reporting>
- [5] ReSiSTant new on IDONIAL website (Spanish): <https://idonial.com/es/blog/ultimas-noticias-del-proyecto-resistant>
- [6] ReSiSTant new on IDONIAL website (English): <https://idonial.com/en/blog/latest-news-about-resistant-project>
- [7] ReSiSTant new on IDONIAL LinkedIn: https://www.linkedin.com/posts/nrodriguezlopez_how-to-develop-nano-based-structures-for-activity-6666659015419944960-vQQS
- [8] ReSiSTant new on IDONIAL Twitter: <https://twitter.com/IdonialTech/status/1247129591564689408?s=20>
- [9] ReSiSTant new on IDONIAL LinkedIn: https://www.linkedin.com/posts/nrodriguezlopez_outcomes-public-resistant-project-activity-6739130031815110656-2b5
- [10] ReSiSTant new on IDONIAL LinkedIn: https://www.linkedin.com/posts/nrodriguezlopez_nanofabnet-newsletter-issue-5-activity-6735113636240531456-uJ8F
- [11] ReSiSTant new on IDONIAL Twitter: <https://twitter.com/IdonialTech/status/1333355818570412035?s=20>
- [12] ReSiSTant new on IDONIAL Twitter: <https://twitter.com/IdonialTech/status/1329343778751180802?s=20>
- [13] ReSiSTant new on IDONIAL Twitter: <https://twitter.com/IdonialTech/status/1329343547745689601?s=20>
- [14] ReSiSTant new on IDONIAL Twitter: <https://twitter.com/IdonialTech/status/1319182348160741376?s=20>
- [15] ReSiSTant new on IDONIAL LinkedIn: https://www.linkedin.com/posts/nrodriguezlopez_ensuring-high-impact-of-project-dissemination-activity-6724956692628455424-kNcO
- [16] ReSiSTant new on IDONIAL LinkedIn: https://www.linkedin.com/posts/nrodriguezlopez_outcomes-public-resistant-project-activity-6640940430697603072-yFm9
- [17] ReSiSTant new on IDONIAL Twitter: <https://twitter.com/IdonialTech/status/1260886166762672131?s=20>
- [18] ReSiSTant new on IDONIAL Twitter: <https://twitter.com/IdonialTech/status/1235171353868873728?s=20>
- [19] ReSiSTant new on IDONIAL Twitter: <https://twitter.com/IdonialTech/status/1235171253339582469?s=20>
- [20] NCT website – project information: <http://nantocleantech.us/?s=resistant>
- [21] IFAM website – project information: <https://www.ifam.fraunhofer.de/de/Forschung/forschungsprojekte.html#tabpanel->

Forschungsprojekte

- [22] RINA website: <https://www.rina.org/en/media/CaseStudies/resistant>
- [23] BST website: www.bionicsurface.com/en/magazine/
- [24] 10th Aviation Forum Hamburg 2020: <https://www.aviationforumhamburg.com/>
- [25] New about ReSiSTant publication on Open Access Government Edition in April 2020 (English version): <https://www.idonial.com/en/blog/latest-news-about-resistant-project>
- [26] New about ReSiSTant publication on Open Access Government Edition in April 2020 Spanish version): <https://www.idonial.com/es/blog/ultimas-noticias-del-proyecto-resistant>
- [27] Open Access Government Journal – ReSiSTant publication: <https://edition.pagesuite-professional.co.uk/html5/reader/production/default.aspx?pubname=&edid=a7aef526-7afd-4c66-8b33-ab775edf4c9b>
- [28] CORDIS new about the project (English version): <https://cordis.europa.eu/article/id/418045-how-to-develop-nano-based-structures-for-drag-reduction-in-aviation-and-manufacturing>
- [29] Open Access Government website – ReSiSTant new: <https://www.openaccessgovernment.org/nanotechnology-reduce-environmental-impacts-of-aircrafts/85311/>
- [30] NanoFabNet – newsletter – Issue 5 - November 2020: <https://mailchi.mp/175a25c954a1/mbsmlmug0n-8034702>