



Funded by the  
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# RADIO FOREGROUNDS FIRST DISSEMINATION REPORT (2016)



# **Dissemination Report 1 (Month 12)**

## **INTRODUCTION**

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RADIOFOREGROUNDS project dissemination is an active process, where information is constantly tailored and targeted for the intended identified audience. During the first year, apart from the traditional vehicles of journal publication and academic conference presentations it has included media stories and presentations using on-line media and personal approaches.

## **1.GENERAL FRAMEWORK OF THE DISSEMINATION AND COMMUNICATION ACTIVITIES**

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### **1.1 Objectives**

RADIOFOREGROUNDS project communication objectives are:

- Raise public awareness and ensure maximum visibility of the project key facts, objectives, activities and findings among EU public at large;
- Announce and promote RADIOFOREGROUNDS events, contributing to upgrade its attendance and engagement potential;
- Support the dissemination objectives;

Communication has therefore contributed to the support of the dissemination and exploitation objectives while targeting stakeholders beyond dissemination and exploitation purposes such as the public at large comprising civil society at large.

**Dissemination:** *“The public disclosure of the results by any appropriate means (other than resulting from protecting or exploiting the results), including by scientific publications in any medium.”*

On the other side, the dissemination of the project outputs to key stakeholders has aimed at making the knowledge (results) developed through this first year available to the widest audience.

### **1.2 Stakeholders**

RADIOFOREGROUNDS has reached the following groups of stakeholders for communication and dissemination activities:

REACHED AUDIENCES		ROLE	RELATED WP
Mass media	<ul style="list-style-type: none"> <li>National and International media</li> </ul>	<ul style="list-style-type: none"> <li>To attract the interest of mass media for Cosmology as a hot topic in Astrophysics.</li> </ul>	WP1
Students	<ul style="list-style-type: none"> <li>Primary and Secondary School</li> </ul>	<ul style="list-style-type: none"> <li>General knowledge on astrophysics.</li> </ul>	
RADIOFOREGROUNDS Consortium	<ul style="list-style-type: none"> <li>RADIOFOREGROUNDS partners</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate and ensure smooth implementation of the project activities in their respective countries.</li> </ul>	WP1
Astrophysics Community	<ul style="list-style-type: none"> <li>Cosmology groups and astrophysics community at large</li> </ul>	<ul style="list-style-type: none"> <li>Share knowledge and create long-term research collaboration.</li> <li>Enhance project's visibility via promotion throughout their contact network.</li> </ul>	WP2-6
WIDER AUDIENCES (reached through communication, for awareness purposes)			
General Public	European civil citizens and the civil society at large		WP1

Table 1. RADIOFOREGROUNDS dissemination reached audiences, roles and related WPs

## 2. COMMUNICATION AND DISSEMINATION ACTIVITIES

The public and updated information of the dissemination activities within the scientific community can be found in the web page of the project: <http://www.radioforegrounds.eu/>. Here we include the status at the end of year 1 of the project.

At month 12 the following communication and dissemination activities have been carried out. Following the Dissemination Plan we divide them in tools and channels:

### 2.1 Communication and Dissemination Tools

#### 2.1.1 Brochure

The RADIOFOREGROUNDS brochure to present the topic, its objectives, scope, vision and main activities.

This first RADIOFOREGROUNDS brochure presents a general overview of the main scientific objectives of the project, within a broad context related to the QUIJOTE Experiment and Planck Mission. So far, this brochure has been distributed online through the website and social networks under the form of clear and appealing info-graphics (as .pdf files). Printed copies will be soon available to be handed out at each event RADIOFOREGROUNDS partners participate in.



The pdf file is available in the project web site:

<http://www.radioforegrounds.eu/pages/outreach.php>. produced both English and Spanish versions.

## 2.1.2 Media Articles

Media articles make reference to all types of written press articles focusing on presenting the project, its activities, its outcomes, etc., that are published on different channels. They may take the form of news, presentations, announcements, tweets, posts, press releases, published on the project website, on external websites including partners' websites, on social networks, etc.

Presentations of results (<http://www.radioforegrounds.eu/pages/presentations.php>).

We include here the list of meetings where we have presented the RADIOFOREGROUNDS project, separated by the speaker in each case.

### J.A. Rubiño-Martín (IAC):

- i. [The QUIJOTE experiment](#). Towards a next space probe for CMB observations and cosmic origins exploration. CERN, May 2016.
- ii. [The QUIJOTE experiment](#). Cosmic Microwave Background, Large Scale Structure and 21 cm Surveys. Madrid, June 2016.
- iii. [The QUIJOTE experiment](#). Meeting on Fundamental Cosmology. Barcelona, June 2016.
- iv. [The QUIJOTE experiment: latest results](#). CMB SPECTRAL DISTORTIONS FROM COSMIC BARYON EVOLUTION. Bangalore (India), July 2016.
- v. [The QUIJOTE experiment](#). Towards the European coordination of the CMB programme. Florence, September 2016.

### C. Baccigalupi (SISSA):

- i. [CMB Data Analysis, Combination of CMB Datasets](#), CMB day, Rome, March 30th, 2016
- ii. [Background and Foregrounds for CMB experiments](#), First Bilateral Korean Italian Symposium on Cosmology, May 30th, 2016



- iii. [Background and foregrounds for CMB experiments](#), European Week of Astronomy and Space Science, Athens, Greece, July 4th, 8th, 2016
- iv. [Foreground Analysis Modeling, and Cleaning: Status and Plans](#), Simons Observatory Collaboration meeting, Princeton, October 31st-November 4th, 2016

## P. Vielva (UC):

- i. [Component separation with PILC](#). Towards a next space probe for CMB observations and cosmic origins exploration. CERN, May 2016.

## 2.1.3 Project Reports

Annual report summarizing the progress of the activities. This report includes:

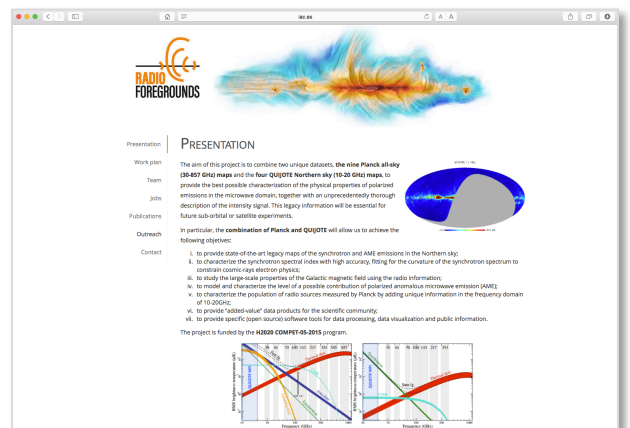
- a) management level overview of the activities during this period;
- b) the progress achieved in terms of deliverables and milestones;
- c) the problems encountered and the actions taken to correct them.

## 2.2 Communication and Dissemination Channels

### 2.2.1 Project website

The project website constitutes a key communication tool in order to increase the project visibility and impact, especially towards wider communities and the general public. The RADIOFOREGROUNDS website contains all relevant information about the project (project objectives, information, news, event announcements, etc.).

It also meets both internal and external needs. Using password protection in a dedicated wiki area allows the consortium members to share confidential data, while still offering unrestricted public access to more general information.



**RADIOFOREGROUNDS external website**

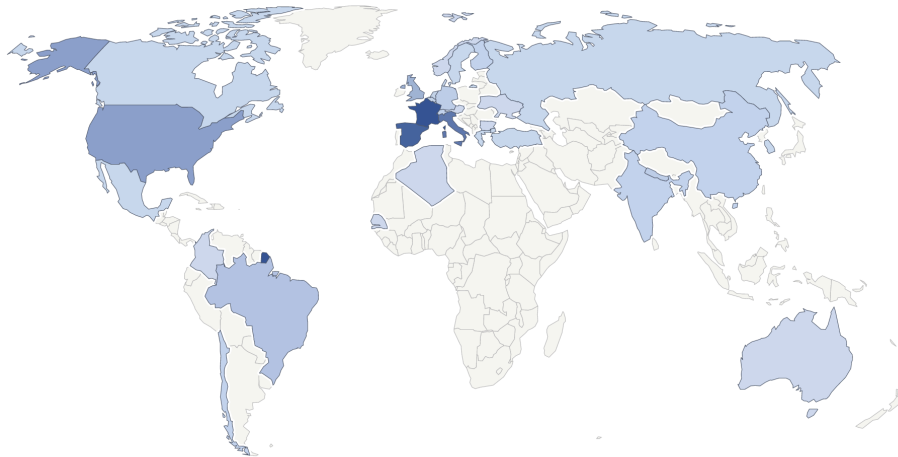
Thus, the website presents, among other issues, the scientific interests of this Research and Innovation action, the main challenges and expected data products for the scientific community.

The <http://radioforegrounds.eu> domain was registered for this purpose in M3 of the project. The IAC will maintain the domain and the information updated for the coming years.

The web page of the project (<http://www.radioforegrounds.eu>) is available since M3 of the project. During year 2016, we have used it mainly for the advertisement of the job opportunities within the project (<http://www.radioforegrounds.eu/pages/jobs.php>), for reporting about publications and presentations, and also for the outreach material.

We use PIWIK (<https://piwik.org/>), an open-source analytics platform, to monitor the activities in the web page. During 2016, we had of the order of a thousand visits to the site. A map of the distribution of visits per countries is shown here:

Visitor Map



Most of the visits were from European countries, and around 15% of them from America. We also note that half of the visits were concentrated during the period of time that the job positions were open. The number of visits is expected to be larger once we produce the database.

### 2.2.2 Social Media

Following our Dissemination and Exploitation Plan (DEP), we have created the following profiles in different social media:

- Twitter. <https://twitter.com/radioforeground>

RADIOFOREGROUNDS project account informing the broader European community about both technical and less technical information as well as about the last updates of the project.

Extensive use of Twitter was made since the official launch of the project as it served as main communication channel with the target audience, before the two websites went online.

Several tools has been set up in order to monitor the activity and reassess the projects' positioning: Twitter analytics, Tweetchup, Klout and Tweetdeck.

Several popular hash tags in relation to the projects' area of activity have been identified and used on a regular basis to increase the project visibility. Those hashtags are: **#telescope**, **#astronomy**, **#science**, **#research**, **#innovation**, **#technology**, **#H2020**, **#EU**, **#Cosmology**.

- Facebook. <https://www.facebook.com/radioforegrounds/>
- Youtube. <https://www.youtube.com/channel/UCGDys6v72rpC4JVTG7Vdnlw>

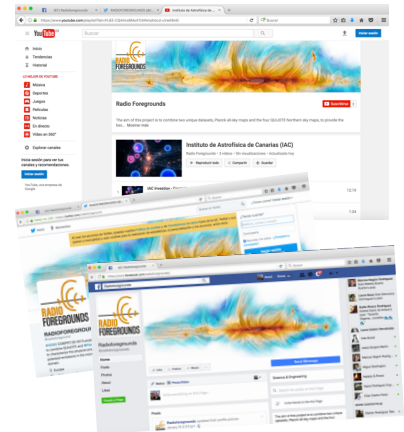
YouTube account to disseminate content keeping the targeted audiences up-to-date on all that is new and exciting about the project.

- ResearchGate. <https://www.researchgate.net/project/RADIOFOREGROUNDS>

### 2.2.3 Virtual Collaboration Platform: a wiki page

Virtual collaboration platform for partners to engage and interact on a continual basis.

This platform, integrated with the project website, constitutes a valuable dissemination channel to manage the project. The virtual platform is being developed under a new platform, Redmine, a flexible project management web application written using the Ruby on Rails framework, a cross-platform and cross-database. Redmine allows multiple projects support, flexible role based access control, flexible issue tracking system, Gantt chart and calendar or easy way to manage with large number of documents.



### 2.2.4 Publications in Scientific Journals

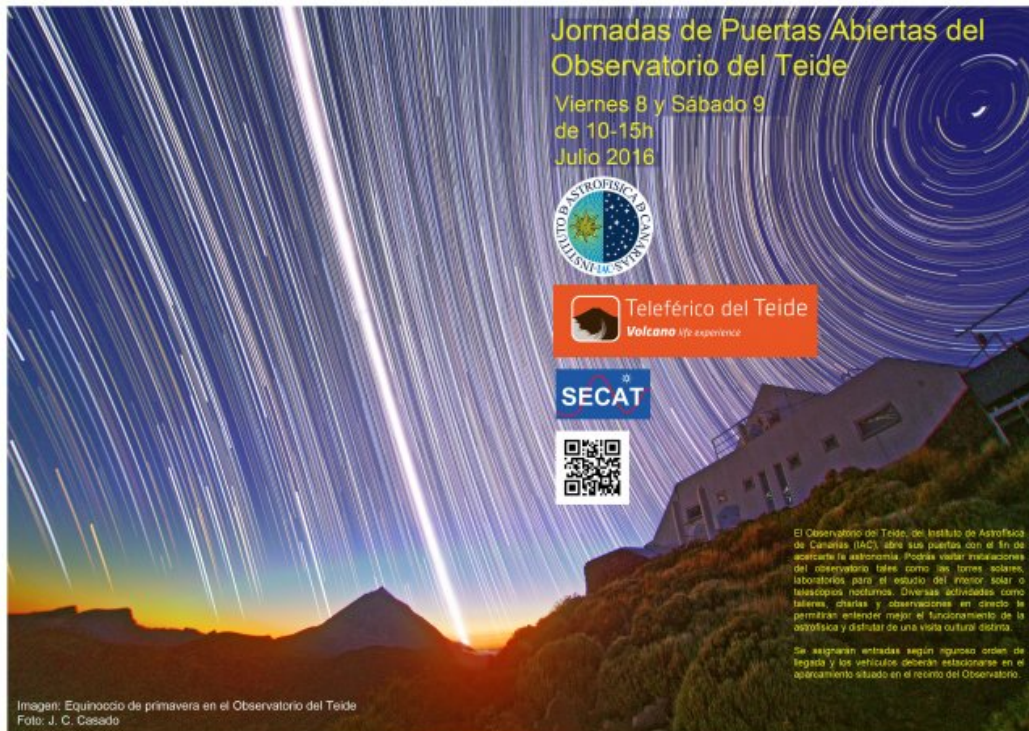
List of publications (<http://www.radioforegrounds.eu/pages/publications.php>):

Scientific articles for general public published in national and international journal addressing the scientific and technological challenges of RADIOFOREGROUNDS:

- [QUIJOTE scientific results - II. Polarisation measurements of the microwave emission in the Galactic molecular complexes W43 and W47 and supernova remnant W44.](#) Génova-Santos, R., Rubiño-Martín, J. A., Peláez-Santos, A., Poidevin, F., Rebolo, R., Vignaga, R., Artal, E., Harper, S., Hoyland, R., Lasenby, A., Martínez-González, E., Piccirillo, L., Tramonte, D., Watson, R. A. Monthly Notices of the Royal Astronomical Society 2017, **464** 4107-4132.
- [On the regularity of the covariance matrix of a discretized scalar field on the sphere.](#) Bilbao-Ahedo, J. D., Barreiro, R. B., Herranz, D., Vielva, P., Martínez-González, E. Journal of Cosmology and Astroparticle Physics 2017, **2** 022
- [Making maps of Cosmic Microwave Background polarization for B-mode studies: the POLARBEAR example.](#) Poletti, D. et al. ArXiv e-prints 2016.

## 2.2.5 External Events

Open Days at the Teide Observatory (Tenerife) to bring astronomy to those living in the islands and also to those who may be visiting them on those dates. As part of the activities, we included visits to the QUIJOTE experiment.



Around ten thousand persons visited this year the observatories in the Canary Islands, representing a great opportunity for public outreach. The QUIJOTE Experiment has been one of the telescopic installations visited. We used this emblematic place to present the RADIOFOREGROUNDS project to the general public. Visitors have been informed about the project and the science behind it, through the projection of short videos explaining the scientific and technology challenges of the project.

A selection of pictures from several outreach events during 2016, including visits to the QUIJOTE telescopes are included here:













### 3. REACHED AUDIENCES

	Policy Makers, Regulatory Authorities	Industry	Astrophysics Community	General Public
<b>Tools</b>				
Brochure - Generalist	✓	✓	✓	✓
Brochure – Thematic, topic specific	✓	✓	✓	✓
Media articles - Generalist	✓	✓	✓	✓
Media articles – Specialised, targeted, scientific	✓	✓	✓	
Email blasts – Topic specific	✓	✓	✓	
<b>Channels</b>				
Project Website	✓	✓	✓	✓
Mailing lists & Contact databases	✓	✓	✓	
Social Media	✓	✓	✓	✓
External Events - Outreach				✓
Publications in Scientific Journals		✓	✓	