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D10.1 Plan for the Communication and Dissemination of Results

Work Package	D10.1 Plan for the Communication and Dissemination of Results
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Deliverable Abstract

This document illustrates the Communication, Stakeholder and Dissemination Plan covering the period of M1-M36 of the project. It provides an overarching frame of key-aspects as Internal Communication, promotional and outreach activities to be carried out, strategy for an effective Stakeholder engagement, a series of KPIs to correctly assess the Communication's efficiency and a comprehensive timeline to map the first year of the project. The document paves the way of the Communication Plan at an early stage of the REINFORCE initiative: this implies the possibility to potential changes on due course, to be mutually agreed with the Consortium.

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TERMINOLOGY

Terminology/Acronym	Description
AB	Advisory Board
CNRS	Centre National De La Recherche Scientifique
CSA	Coordination and Support Action
DoA	Description of Action
EA	Ellinogermanik i Agogi Scholi Panagea
EC	European Commission
EGO	European Gravitational Observatory
ETC	Ethics Committee
EU	European Union
GA	General Assembly
IASA	Institute of Accelerating Systems and Applications
IM	Innovation Manager
KPI	Key Performance Indicator
LC	The Lisbon Council For Economic
OU	The Open University
PC	Project Coordinator
PMC	Project Technical Committee
PO	Project Office
PTC	Project Technical Committee
REA	Research Executive Agency
REINFORCE	REsearch Infrastructure FOR Citizens in Europe
UOXF	University of Oxford
WP	Work Package
ZSI	Zentrum Fur Soziale Innovation

1   Executive Summary

The current increase of popularity of Citizen Science is an evident litmus of the societal need to get more and more engaged in the scientific knowledge production, development and decision-making. Conversely, research institutions, scientists and research funders are concretely discovering the tangible benefits of opening the door of research to a wider range of society and to collaborate with citizens. This long-term process resulted in a remarkable rise in public participation in research endeavours and becoming engaged in knowledge co-creation.

Citizen Science, often referred as community science or public participation in scientific research, is a growing movement that attempt at involving the general public in scientific discovery, monitoring, and experimentation across a wide range of disciplines at a deeper extent (i.e. Citizen Science methodology represent a steadily growing area of opportunity for health and biomedical research, environmental or behavioural studies, scientific programmes as well as new boost for more collaborative forms of engagement in large-scale research).

The European Commission is putting a great emphasis to promote Citizen Science through research policy formulation and direct support because of its potential benefits for European researchers, competitiveness and the society at large.

The forward-looking objective is to build an inclusive concept of "Science for the People, by the People" by giving citizens a fair access to knowledge. This kind of approach should bring along at least three undeniable advantages:

1.   Augmented participation in Research, decision-making process and accountability.
2.   Fair and more effective usage of public and private science as well as research available funding.
3.   Bridging the gap between European Policy Makers and general public, whilst still basing activities on scientific evidence and know-how.

The most common and widely acknowledged interpretation breaks Citizen Science down into three categories: contributory, collaborative and co-created, whereas the actual citizen's involvement in the different stages of a scientific investigation dictates their classification.

REINFORCE, following closely the European guidelines in the field, aims to minimize the knowledge gap between Large Research Infrastructures and Society through Citizen Science. The most prominent goal is to engage and support citizens to cooperate with researchers and actively contribute in the development new knowledge for the needs of science and society. As a result, it is expected that the proposed project will reinforce the Science Capital of European Citizens by engaging them in the research done in Large Research Infrastructures.

This Deliverable is a valid compass to fully support the achievement of the abovementioned scope and an exhaustive roadmap that encompasses a wide spectrum of Communication, Outreach and Dissemination activities to be carried out in pursuit of such objectives. Next chapters describe painstakingly and in a prescriptive way how the process is going to take place and each task responsibility.

1.1 Purpose and scope

This Plan for the "Communication and Dissemination of results" will outline the promotional and outreach activities to be deployed throughout the overall lifespan of the REINFORCE project (M1 –

M36). The Plan is envisaged and coordinated under WP10 that copes with "Raising Awareness & Sustainability".

The Plan outlines a series of joint actions in order to ensure effective overall visibility of the project across a multitude of Stakeholders by leveraging the collective networks of the project partners, by joining either targeted third-party events or with the organisation of tailored Workshops based on the 4 Demonstrators of REINFORCE. As the project is going to move forward, some adjustments can be mutually agreed, whether some promotional strategy or dissemination asset is deemed to better serve the general scope of the initiative.

WP10 encompasses four main tasks:

Task 10.1: Plan for the Communication and Dissemination of Results
Task 10.2: Marketing, Communications materials & Activities
Task 10.3: Policy Roadmap on Research infrastructures for citizen science in Europe
Task 10.4: REINFORCE Sustainability & Exploitation Path

The Plan will be entirely based on a SMART and Agile approach (action will be clearly specific, measurable, attainable, relevant and time-bound) with a view to adjusting each action to successfully address targeted Stakeholders and promptly adapt to changing needs that may emerge during the whole timeframe.

In full accordance, this must be considered as a live document to be periodically updated and backed up by regular internal check-up (in the form of Conference Calls or General Assembly meetings) to reflect the above-mentioned circumstances and to pursue potential new synergies established with other Citizen Science organisations, similar H2020 initiatives, Research and Academia Institutions, Policy Makers on national and European level or the European Commission.

1.2 Stakeholders

REINFORCE aims to reflect on a broad and inclusive range of stakeholders and aims to actively engage them in citizen science activities. Consequently, the project's communication activities need to find ways to address each of these stakeholders explicitly, based on their respective needs, characteristics and possible motivation in order to involve and engage them in the project, specifically in the project demonstrators. To maximize the probability of sustained engagement in REINFORCE activities each of the stakeholder groups and actors require:

a) specific, custom-made means of communication, and
b) a carefully planned and implemented timing in the interaction with the project.

The stakeholders of REINFORCE can be broadly categorized in the following groups serving different goals:

a. **REINFORCE future potential users/citizen scientists:**
   Goals: The success of a citizen science project and activities such as planned in REINFORCE does not only rely on quantitative user numbers alone. Real impact is achieved by increasing the citizen scientists' loyalty to the REINFORCE demonstrators. The goal is therefore to establish a pool of citizens to act as citizen scientists and support the research work of project partners, and who agree to participate continuously in REINFORCE. To achieve that, the REINFORCE consortium needs to clearly communicate the benefits and opportunities of its citizen science activities to the potentially interested user and (future) citizen scientists. The rationale for communication activities with potential

citizen scientists is twofold: to attract new users bringing in various different backgrounds, skills, interests and motivation based on the project's inclusive design, while ensuring their sustained participation throughout the project's duration in order to maximize scientific efficiency.

This group includes various subgroups:

- European (and beyond) citizens interested in citizen science activities and/or interested in large scale research infrastructures.
- The audience within and beyond the project community, accessible via the project communication channels as well as the institutional activity of the consortium members and various communication tools and channels.
- Students, teachers, school communities
- Citizens with visual impairments and
- Elderly citizens.

The various target groups are expected to consist of individuals who vary with respect to age, ethnicity, gender, knowledge background, profession, science capital, potential impairments such as visual impairments, prior experience with citizen science in general and Zooniverse in particular and ICT literacy. Each sub-group requires a different approach in order to support and sustain their engagement with the project. The approach will be described in more detail in D2.1: The REINFORCE Citizen Engagement Plan

Timescale: The communication activities aiming to engage this target group have begun since the first month of the project and will be continued throughout the project's duration. M12 (deployment of the project's demonstrators and initiation of the participatory engagement activities) signifies a milestone in which the communication addressing these particular target groups will be intensified.

b. **Scientific and Research Community:**

Goals: Citizen science can only work in cooperation and collaboration with the scientists behind the activities. Therefore, and as equally important as engaging citizens is the communication to and with the scientific community. However, as there are misconceptions about science among citizens, there are also misconception about citizen science in the research community that should be addressed and targeted. The goal in REINFORCE is to engage this group and promote the concept that the research community has to move beyond traditional outreach programmes and learn to design effective citizens science activities that benefit their research and can ensure citizens' involvement.

This group includes: Universities, large research infrastructures, research centres, researchers, PhD students, graduate and undergraduate students as well as active university faculty and retired researchers and academics.

Timescale: The communication activities aiming to engage this target group have begun since the first month of the project and will be continued throughout the project's duration.

c. **The Citizen Science Community:**

Goals: There is a growing global community of active citizen scientists already involved through platforms such as Zooniverse. A central goal of the communication activities in REINFORCE should therefore be to convince this group to become engaged and to take part in the exchange of good practices, the liaison with other initiatives in the field of citizen science, the coordination of specific activities among different projects such as conferences and workshops, preparation of policy briefs and the potential integration of activities to maximise impact.

This group includes: EU funded projects in the field of citizen science, or in the field of frontier science with work packages dedicated to citizen science activities; Online citizen science projects in the same or other subject area as REINFORCE; Citizen science projects in general; Citizen Science practitioners with long experience in the field.
Timescale: The communication activities aiming to engage this target group have begun since the first month of the project and will be continued throughout the project's duration.

d. **Policy makers:**
Goals: The goals of engaging this group are: to diffuse the culture of citizen science among policy makers and introduce changes in the policy making processes; to raise awareness regarding the importance of citizen science in frontier Physics and its applications and thus ensure policy support at all levels; to communicate the impact of REINFORCE so that policy makers understand the benefits and support future activities
This group includes: Policy makers operating at local, regional and national levels as well as EU policy makers: the EU Commission and EU agencies
Timescale: The communication activities aiming to engage this target group have begun since the first month of the project and will be continued throughout the project's duration. Targeted communication activities will take place at a regular basis after the deployment and first period of implementation of the project's demonstrators (M24) in order to provide the policy making community with data-driven insights.

e. **The Industry/Innovation Community:**
Goals: The goals of engaging this group of stakeholders are: to spread the culture of citizen science in the Innovation community and provide guidance to research funders in its implementation: finding new, innovative ways, tools and apps to get citizens involved and contribute to better, citizen-based research and applications.
This group includes: Representatives of industry associations at regional national and EU levels, social innovators and entrepreneurs and the European Innovation Council.
Timescale: The communication activities aiming to engage this target group have begun since the first month of the project and will be continued throughout the project's duration. Targeted communication activities will take place at a regular basis after the deployment and first period of implementation of the project's demonstrators (M24) in order to provide the industry/innovation community with data-driven insights.

1.3 Internal Communication tools

Flawless communication within project partners is both a key-point and a necessity to guarantee the regular project workflow and to put in place the following best practices:

- • ensure that all the partners have a holistic view of the project;
- • keep everyone fully aligned and involved in the project's development;
- • create a secure space for shared feedback and discussion;
- • guarantee complete transparency across the different WPs;
- • prevent beforehand potential obstacles.

REINFORCE set-up different internal communication tools which are managed by WP1 (Management) in order to foster internal communication and share ideas and inputs across the REINFORCE consortium.

The project uses advanced ICT means, like audio and video conferencing tools, instant messaging, electronic mail, e-mailing lists, e-mail archives, document repositories, web servers, and a version control system for code and documentation.

A shared Google Drive folder with one folder per each WP has been created by EA and shared with all the partners, in order to provide a digital workspace to support the electronic communication and cooperation between project team members, where they can share project files, exchange and co-edit files.

Daily communications among the WPs and partners are carried out mainly through

- e-mails and a central mailing list including all project partners;
- web-conferencing for regular online meetings;
- face-to-face communication during physical project meetings;
- online storage of all documents (deliverables, contract, presentations, rolling minutes, etc.).

The project holds physical meetings approximately every six months in order to coordinate the research process, and guarantee consistency and integrity of the project. GA meetings will be held in this context.

One virtual consortium meeting per month takes place via video conferencing. These meetings ensure the internal communication among partners, allow the WP leaders/thematic leaders to coordinate the various tasks, and report the progress of work to the team members. All participants are invited to provide an update before the meetings start. All meetings are recorded and are made accessible to all partners.

1.3.1 Mailing lists

EGO created a mailing list for the REINFORCE consortium. REINFORCE mailing list addresses the WP1's goal to establish an efficient electronic service for communications, and document exchanging.

EGO created also 2 sub lists: one addressing management, impact and communication issues, which includes WP1, WP2, WP8, WP9 and WP10; and another one addressing technical deliverable issues, which features WP3, WP4, WP5, WP6 and WP7.

Mailing lists including all the members of one WP are under creation. These will provide the members with the possibility to easily reach their respective WP and committee and, consequently, to ensure the progress of the project towards its planned objectives.

1.4 Monitoring and KPIs

The communication and dissemination objectives mentioned above will be measured through Key Performance Indicators (KPIs) clearly listed in the Grant Agreement which defines a set of macro activities which include more detailed, specific activities that the Consortium will undertake to ensure an effective communication and outreach strategy spanning across a 36-months period.

KPIs will be closely monitored throughout the whole duration of the project, with a view to ensure the successful achievement of all the results. Under specific circumstances, KPIs could be slightly adjusted with a common agreement of the Consortium: every deviation from the initial KPIs framework will be surely proved and explained accordingly.

KPIs tracker information tool is displayed in the figure below (Table 1).

Toolkit Element	Communications Tools	KPI Requirements
Communication Toolbox	Press Releases	≥100
	Posters	≥5
	Project factsheet	1
	Leaflets	≥5
	Journal publications (International open refereed journals)	≥10
	Web platform	>100.000 Unique Visitors
	Video interviews	
	Webinars	≥4 webinars + 1 final webinar
	Newsletter	18
	Social media channels	≥5000 tweets and retweets with project hashtag
REINFORCE Community	Cooperation with other initiatives	>5
Events	Yearly showcase events	3 annual events + 1 final conference
	REINFORCE participation in conferences and expeditions and other events	≥15
	Presentation in conferences	≥10

TABLE 1 – KPIs

2 Communication, stakeholder and dissemination plan

The REINFORCE Communication, Stakeholder and Dissemination Plan is part of the endeavours of WP10. Given the cross-cutting theme of the WP, the ideas and guidelines sketched out in this document affect the creation of all content within the project. All organizations involved in the project are expected to contribute to communication, dissemination and impact. They are asked to follow the communication guidelines, which will be provided in this document and through other means (templates, etc.).

Communication activities ensures that diverse actors and stakeholders are continuously engaged in a two-way dialogue with the project at a local, national and EU level with the aim of raising awareness of citizen science and design among a broad segment of the public who currently does not identify them as a source of value.

All consortium members are involved in communication activities spanning six European countries and one from Latin America and reaching European and international audiences. This document provides an extensive and transnational communication strategy and aims to be a "living document" that is updated regularly to reflect the evolving needs of the project and incorporate stakeholder feedback gained during two-way exchanges. It addresses the communication actions of both research partners and the ethnography and co-creation exercises and is used strategically to manage communication and two-way exchanges with multiple audiences.

The Communication and Dissemination plan will concentrate its efforts around copywriting and producing engaging, stimulating and impactful content. Our editorial planning will include the regular publication of articles covering partners' highlights, successful stories, and best practices.

This strategy will entail attendance of strategic events across Europe with the two-fold objective of promoting the initiative to a wider audience as well as onboarding relevant Stakeholders to establish long-lasting collaboration.

2.1 Internal Communication

Efficient communication and collaboration will be one of the main objectives of the REINFORCE consortium partners. For this reason, a web-based collaboration platform will be created offering at each partner independent access to important documents such as, deliverables, meeting minutes, agendas, supporting materials and other miscellaneous project information. The access to this collaboration tool will be restricted only to the consortium members, thus avoiding broadcasting of data and results. Furthermore, meetings will be organized on a regular basis in order to ensure clear and efficient project management. The types of meetings that will be organized are the following: Project Committee meetings (semi-annually), Scientific Committee meetings (four-month basis by remote), Work Package meetings (on demand by remote according to the work package progress and needs). Depending on the project needs, conference calls will be held. The schedules of the meeting will be fixed in advance to allow partners to be properly prepared. PC will take a comprehensive set of minutes at all meetings with clearly-stated action points, time-plan and names of those responsible for the actions.

2.1.1 General Assembly

The role of the GA is to make decisions concerning any important top-level management issues arising. This function will include the Project Coordinator and senior project representatives from each partner (MM). The main issues to be covered by this function are the following:

- Definition of a comprehensive and attainable strategy for completion of project objectives, with appropriate levels of control;
- Overall co-ordination of the macro issues which affect the running of the project, including management of financial, technical, planning, control and exploitation matters;
- Specific progress control of resources and utilization with respect to the work plan;
- Preparation and authorization of any subsequent contractual agreements;
- Definition of appropriate corrective actions to be taken in the case of progress problems or conflicts;
- Review of project risks at each GA meeting;
- Appointment of reviewers of deliverables, in accordance to the Quality Management Plan;
- Top level decision making in matters related to the Contract;
- Oversee and manage ethical issues in the REINFORCE use cases.

The activity of the General Assembly will be also defined in the Project Handbook, Quality Plan & Risk Management (D1.1), which will include detailed criteria and rules for: i) the project management procedures, roles, and responsibilities, ii) the project baselines, iii) the quality planning, metrics and control, iv) the change management plan and process, v) the communication management plan, vi) the effort and cost management plan; vii) the innovation management plan, and viii) the risk management plan.

2.1.2 Project Committee

It consists of representatives of each organization participating in the consortium. It constitutes the highest decision board and its main tasks are: overall responsibility of all technical, financial, legal, administrative, ethical, dissemination and exploitation issues of the project, monitoring and assessment of the actual progress of the project, decision making, amendments approval (where necessary). The leader of the PC is the Project Coordinator.

2.1.3 Project Technical Committee

The Project Technical Committee will ensure that scientific objectives of the project are met with quality and in time, lead the S&T activities undertaken within the project, oversee the overall consistency of the technical objectives and the relevant WP plans, prepare technical deliverables in conjunction with WP leaders, report on the technical progress of the project, schedule, coordinate and assess activities related to REINFORCE development effort, consult technical resources concerning algorithms and tools to be used during implementation, be responsible for resolving any issues of S&T nature that might occur. The Technical Manager of the project is Dr. Gary Hemming, member of the EGO IT Department and the Virgo Detector Characterisation group, closely interacting with the Coordinator in order to ensure adequate integration between scientific and technical outputs of the project.

2.1.4 Ethics Committee

The consortium will set up an Ethics Committee to systematically design and implement an Ethics protocol during the use cases implementation. The Ethics Committee will set out the "ethics requirements" that the project must comply with. The work includes the preparation of an Ethics Handbook (D1.2) and the processes to monitor the application of the foreseen ethics requirements during the pilots: e.g. provision of details on the procedures and criteria that will be used to identify/recruit participants in the pilots, provision of detailed information on the informed consent procedures that will be implemented for the participation of humans, provision of templates of the informed consent forms and information sheet. Additionally, a series of procedures to be followed will be described: e.g. copies of opinion or confirmation by the Ethics Manager and the Ethics Committee that all data collection and processing will be carried according to EU and national legislation must be obtained (whichever applies according to the EU General Data Protection Regulation - GDPR and the national law), detailed information must be provided on the procedures that will be implemented for data collection, storage, protection, retention and destruction and confirmation that they comply with national and EU legislation, justification must be given in case of collection and/or processing of personal sensitive data, details of methods used for tracking or observing participants must be provided and, if relevant, notification/authorisation for tracking or observation should be obtained and submitted upon request. Additionally, the Ethics Committee will work on potential requests from the EC services upon project selection and specific requirements that could arise from the evaluation process. The REINFORCE consortium takes into consideration the Code of Conduct for User Experience (UX) Professionals1 and especially

paragraph 6, according to which, privacy, confidentiality and anonymity shall be respected in any relevant study. In particular, paragraph 6 states that:

- UX practitioners shall not reveal information that identifies colleagues or participants without their permission and shall take reasonable precautions to avoid such information from being disclosed unintentionally;
- UX practitioners shall ensure that participants in any study provide informed consent for use of all data collected;
- UX practitioners shall never disclose in their writings, reports, teaching materials or other public media or otherwise make public any information they have acquired about persons, employers or clients in the course of their professional work unless disclosure is both legal and that they have either taken reasonable steps to disguise the identity of the person, employer or client, or they have the express permission to disclose.

In this direction, relevant data protection measures will be taken so that the security of the data is guaranteed.

The consortium's main priority will be to ensure respect for the persons behind the data and consideration of the potential harm to individuals or communities. Information in excess of the strictly required data will not be employed, in order to avoid gathering data that is irrelevant. Quality of data will be taken into account and specific measures will be adopted to ensure that the data provided by the participants is up to date and accurate, including providing adequate information to the participants and maximum transparency. Within the consortium, members will take individual responsibility and hold each other accountable for the criteria used to make decisions.

Even in the context of anonymous data, the tracking of data may allow to identify to one specific person. Therefore, location data collected is never "abstract" – there is always an identifier that tracks the user. For instance, in the movement of users, given the highly specific pattern of each person's trajectory, the resulting paths are never identical and, in combination with other data, may reveal the identity of a person even though they were anonymised.

In order to ensure that the processing of the location data meets the highest ethical standards, the data employed will be kept separate from other types of data and cross-referencing with different datasets will only be carried out in the experiment phase to assess the capacity of the tool to ensure anonymity.

2.1.5 Advisory Board

The Advisory Board will supervise and support the Consortium in achieving high level scientific results and impacts, acting as consultants. It will assist the partners in covering various multi-disciplinary aspects of policy domain, science, innovation, by contributing with their expertise through the validation and complementation of the consortium's inputs. The AB will be involved throughout the project to provide feedback on methodologies, tools, technologies and applications, as well as to support the dissemination of project results through their networks. The AB members will provide their feedback through online and offline focus groups as well as documents. They will be also invited to some of the REINFORCE meetings and will participate at the final event. Specific budget is foreseen within EGO's budget for travel cost reimbursement. EGO will be responsible for managing AB member contracts. The AB is chaired by the advisory board counsellors Professor Stephen Serjeant and Doctor Wanda Diaz-Merced.

2.1.6 Innovation Management

This activity includes innovation process aspects such as market analysis, business and sustainability models, and innovation potential analysis. Innovation Management will be embedded in the management of the project as well by means of a dedicated Innovation Manager role. Innovation Management activities will be aimed at optimizing the opportunities related to the innovation deployed during the project. In particular, Innovation management will serve to align innovation the final project outcomes to user needs (with focus on the frontier physics domain), to continuously analyse market and competitors' trends, to optimize the competitive edge of the solution based on a recursive process of feedback loops, to foster the exploitation of innovation and to connect with other suppliers and to promote the openness of the approach. Innovation management identify relevant "market" expectations and evolution, and will ensure that these are taken into account for both strategic and technical decisions making with a view to exploit the project outcomes and collaboration with stakeholders and related entities across the EU and to develop detailed sustainability plans and the IPR strategy in line with the IPR agreements defined in the REINFORCE GA. This translates into the following tasks:

- Links and refines user needs to monitor and ensure alignment of technology innovation to user needs;
- Support in preparing the exploitation and sustainability plan;
- Manages the execution of the overall exploitation and sustainability plan and supports partners in setting up their individual sustainability plans;
- Manages the knowledge produced during the project lifecycle, support and assesses standardisation aspects;
- Supports the individual partners' legal departments in their drafting of the legal and contractual agreements with respect to the IPR.

The Innovation Management activities will be led and supervised by the Innovation Manager (IM) which will be in charge to keep the project on the edge of innovation, as part of the duty of the management, to open the project to external influences and to let them actively contribute to the project evolution. The active involvement of stakeholders, representatives of public institutions and policy makers as well as research organisations and industries, ensure that the project results will be integrated with innovative pathways into an optimized new approach for R&I, without neglecting market trends and sustainability environments. The IM performs the following tasks: i) promote and stimulate the establishment of contacts with other relevant experiences (e.g. innovative projects) with the aim to establish cooperation and learn best practices; ii) ensure that the project will remain open to integrate its activities with the influences coming from the innovation process and identify and support new business ideas emerging; iv) promote and coordinate actions to engage the general public and increase social awareness on the topic. Due to this specific role, the IM will lead the exploitation process, and identify where to capitalise on these approaches into future business scenarios and ensure the long-term sustainability of the solution. The IM is Francesco Mureddu from LC.

2.2 External Communication

In order to support its goals and generate impact, REINFORCE implements a 36-month communication strategy aimed at supporting the dissemination and stakeholder engagement goals and targets of the project, coordinated under WP10 – Raising Awareness & Sustainability, drawing on the extensive know-how, experience, and network within REINFORCE consortium.

Throughout the duration of the project, all REINFORCE partners contribute to community development on a continuous basis, in addition to providing valuable content related to their work package. Having an effective communication plan is key to paving the way to dissemination and exploitation of results. Assets to support these goals include an already strong community of EU Citizen Science projects. The involvement of many REINFORCE partners in organisations focused on frontier Physics will be instrumental in the engagement and participation of the community at large, by their involvement in scientific, training and outreach activities, including specialized workshops. The various Stakeholder groups defined in Chapter 1.2 will be targeted by a number of engagement activities and campaigns aimed to enable the successful deployment and evolution of the four demonstrators.

The Communication strategy pays close attention to incorporate a public policy perspective, sharing successful stories of transnational cooperation among the citizen science initiatives and illustrating the impact the project can have on everyday lives through a focus on the societal challenges addressed by the co-creation labs.

2.2.1 REINFORCE Community

REINFORCE forges strong connections between successful frontier citizen science projects and amongst 11 partners. EGO, the coordinator of the project, is engaged in the Gravity Spy citizen Science Project through the VIRGO collaboration. The project capitalizes from the experience in frontier citizen science of the University of Oxford and the Open University, from the contribution in the introduction of RRI in frontier science by EA and ZSI, from participatory design for online frontier science education developed by IASA and EA, from the solid tradition in the experimental physics of University of Pisa, from the research activities in the fields of nuclear physics, particle and astroparticle physics carried by CNRS and the efforts made by CONICET to achieve better and multisensorial access to the astronomical data. The partners Lisbon Council and TRUST-IT Services are responsible for the Awareness-Raising and Communication tasks to maximize visibility of project's objectives, achievements and results.

Since the start of the project the community has been expanding already thanks to social media activity, collaboration with other European projects related to Citizen Science and partner and linked third parties reach out.

At the time of writing, REINFORCE is expanding its community through Twitter (180 connections at the time of writing), Facebook (75 followers at the time of writing) and LinkedIn (18 followers at the time of writing), resulting in a total of 273 community involved. Overall acquired contacts are spanning across all the stakeholder profiles of paragraph 1.2. A high number of profiles acts as a multiplier and as an influencer generating an elevated resonance among our stakeholders. Our social media communication will leverage on their network of followers to increase the project's visibility. Annex 1 lists some of the channels that are following REINFORCE's Twitter account at the time of submission the deliverable (March 2020), representing relevant numbers in terms of followers in fields that are of interest to REINFORCE's community. Continuous community monitoring is performed by Trust-IT and it will be circulated regularly to all Consortium Partners.

2.2.2 REINFORCE Promotion campaign

REINFORCE promotion campaign will focus on its expected impacts, which are the following:

1. Contributing to a significant change in awareness and understanding of basic research and its impact on societal challenges, and to the democratization of frontier science by including citizens in a participatory framework.

2. Development of new knowledge and innovations by citizen, by providing teachers with a unique set of resources and challenging questions that will allow students to embed and use the concepts of the offered sciences in their full context.
3. Availability of evaluation data concerning the societal, democratic and economic costs and benefits of citizen science by the means of both using already existing resources and substantive data collection and analysis activities.
4. Indicators to measure the impact of the project's work, matching the indicators defined from the citizen science evaluation framework with MoRRI indicators and the Sustainable Development goals.

2.2.3 REINFORCE Stakeholder Community Building campaign

REINFORCE will use various communication channels, leveraging in part on the project partner networks, and will produce a set of tailored communication formats targeting different stakeholder groups. The target groups are intended to reflect a broad range of stakeholders of citizen science.

2.2.3.1 Public Engagement
The REINFORCE website is going to focus on the user experience with a user friendly, easy to access and dynamic appeal to the REINFORCE community as well as to a general public.

Workshops, as well as training events organized by WP8, will be opportunities to share REINFORCE findings with new generations of citizen scientists. REINFORCE team is planning to join other public events such as ECSA conference 2020, the ESOF – EuroScience Open Forum and Researcher's Nights. Within each action, special attention will be devoted to disadvantaged groups in terms of visual impairments, age, gender, rural residencies, or social criteria.

2.2.3.2 Pan-European Dimension
REINFORCE consortium puts into place profitable/synergistic interactions with other citizen science European projects. Among these engagement initiatives, REINFORCE joined the joint newsletter created by EU-Citizen.Science under the lead of ECSITE which gathers all the SwafS projects working on Citizen Science. The newsletter is released every few months committed to a certain topic and containing information of the projects related to it as well as information central to projects. This aims to increase the visibility for citizen science to a broader target group not limited to the projects' audience.

In order to establish some mutual collaboration opportunities in the coming months, a total number of 23 European projects has been contacted. This synergy effort consists in mutually referencing the projects on the respective websites, supporting each other through social media (LinkedIn, Twitter and Facebook), informing each other about ongoing activities, upcoming events and webinars, and potentially contributing or co-locating an event or webinar on relevant topics.

Furthermore, REINFORCE has been invited to take part in regular monthly calls with the projects funded under SwafS-15-2018-2019 in order to keep updated each other and for collaborating on certain topics.

Joining effort and initiating exchanges with such projects, on the one hand, enables to identifying common contents, discuss together and develop common positions as well as challenges; on the other hand, it strengthens the position of citizen science from a political perspective.

2.2.3.3 Research community
REINFORCE aggregates expertise of stakeholders in the fields of Citizen Science, Open Schooling, and Frontier Research in the fields of Particle Physics, Astrophysics, Astroparticle and

Gravitational Wave Physics, Space and Cosmology, Policy, Social innovation and Science Education. This expert community will develop, implement and evaluate citizen science projects with citizens across Europe.

One of the objectives of the project is to improve citizens' trust in science and attitudes towards it, and this will be achieved through their active participation with the project's proposed citizen science initiatives and through their direct communication with research and education specialists in the REINFORCE community. For this reason, citizens are in constant connection with researchers through their communities of practice, providing their feedback and voicing their concerns.

The engagement with the research community will be particularly relevant to pave the way for the Policy Roadmap that will be developed during the last six months of the project, and will act as a guide for other research infrastructures aiming to utilize citizen science in order to maximize public engagement in frontier science.

2.2.4 REINFORCE Event campaign

Event promotion, coverage and follow-up is central for REINFORCE outreach. A perfect example of the promotion of a REINFORCE event could be the kick-off meeting happened on the 9th of December 2019 at EGO in Cascina, Pisa (Italy). During the one-day conference event, its tweets registered a total of 2.1K impressions.

Opening	Live coverage
ReinforceEU @ReinforceEU · Dec 9, 2019 Stavros Katsanevas, Director at @ego_virgo, introduces the expected impacts of the project at REINFORCE Ko meeting in Pisa: ▶ Promote #SocialInclusion ▶ Establish #CitizensScience methodology ▶ Minimize #Knowledge Gap between #Sciences & citizens #CriticalThinking lisboncouncil and 2 others ♡ 2	**ReinforceEU** @ReinforceEU · Dec 9, 2019 "Citizen #Science activities will exploit multi-messager #Astronomy tools to engage citizens in classification of different noise sources for deep sea #neutrino telescopes" @paschalcoyle, #Physicist at @CPPMLuminy @cnrs presenting #DeepSea hunters Demonstrator 🌀 The Open University and 5 others ♡ 9
Partners' tweets	**Conclusion**
chrislintott ✔ @chrislintott · Dec 9, 2019 At the kickoff meeting for our EU-funded @ReinforceEU project with @mrniaboc and @the_zooniverse. Seems a good time to be building new European collaborations... 💬 2 🔁 ♡ 32	

TABLE 2 – Kick-off MEETING SOCIAL MEDIA COVERAGE

2.2.5 REINFORCE Demonstrators Result Dissemination Campaign

In order to make the demonstrators accessible to citizens, REINFORCE will be using Zooniverse, as the platform on top of which it will build its infrastructure and engage with its community. Relying on an existing portal has the advantage of working with proven, scalable software, while also allowing the project to have an impact beyond its initial stages.

One of the key aspects that is worth being highlighted is that, because of the uniquely shared nature of this open source platform, any tools built for one project are immediately available to a large audience of research groups and communities they work with. This means that REINFORCE will be able to make use of the existing network of Zooniverse contacts: new projects built with the platform may be promoted to the large mailing list of Zooniverse volunteers, and the more than 100 research groups who make use of the platform will be an audience for the best practice materials that are produced.

The dissemination of REINFORCE' outputs has two major objectives:

i)   making the knowledge developed throughout the project available to the widest audience (public disclosure of project results), and
ii)   enhancing its exploitation potential in further research activities developed by different stakeholders.

In order to reach peers in the research community, industry, commercial actors, professional organisations, policy makers, and other European projects the following steps are going to be taken:

- Prompt publication of project results on the REINFORCE platform, where a specific section will be reserved for gathering all the public deliverables, and an open access repository;
- Prompt publication of learning tools and any contents produced during the project;
- Dissemination to stakeholders directly at live events organised by REINFORCE where the project's results feed into workshops, trainings and networking events, and enable stakeholders to make use of the project results in practice and uptake them for later use; and

- Dissemination to stakeholders during third-party workshops, conferences and events, and via articles in peer reviewed publications and sector-specific magazines and journals.

2.2.6 Liaison with Participatory Engagement Activities

This section is to highlight the partnership with WP8, led by Emmanuel Chaniotakis (EA), with the purpose to engage more than 100,000 citizens throughout the duration of the project.

The participatory engagement activities will support the field work of the REINFORCE demonstrators, opening large research infrastructures to society and providing training and support, in addition to opportunities to directly interact with scientists and decision makers.

In liaison with WP8, different actions will be planned to involve and train new generations of citizen scientists. Within each action, special attention will be devoted to sense-disabled people (especially visually-impaired), senior citizens, but also artists and female researchers.

Two main types of participatory engagement activities will be organized for the REINFORCE project:

- Citizen education and empowerment activities, which refer to training workshops, systematic online meetings, practice reflection workshops, summer and winter schools both online and in situ.
- Community Awareness activities, which refer to activities such as research infrastructure open days, national events, events taking place at local and regional level, exhibitions, competitions, masterclasses, debates, conferences, hackathons, open schooling events and info-days at educational institutions.
  These activities aim to:
    - keep citizens engaged with the project activities,
    - promote work done by citizens at local, national and international level and provide means of recognition for the citizens' achievements,
    - act as vehicles for the dissemination of the project to a larger target group of citizens, and
    - forge communication channels between different stakeholders in the fields of science, policy, civic society, education and outreach.

In addition to that, a central web-based interface will be developed on the website to offer access to the different tools that will be developed by WP3, WP4, WP5, WP6 and WP7.

To highly monitor the engagement activities and events organized or co-organized by REINFORCE and partners we will refer to the Engagement & Dissemination Activities Database developed by WP8 and promote these events though social media and blog posts on the website.

3 REINFORCE Branding

The project's visual identity comprises of a logo, templates for documents (e.g. press releases, newsletters, posters, reports, published deliverables etc.) and style guidelines for on-line and off-line use.

A consistent visual identity will be used for all communication and dissemination activities. Templates for external communication and documents have been provided. There will be a final branding alignment across all formats and channels used to reach stakeholders, spanning the

training, products and services, and integrated news, social media, brochures, banners, posters, and other collaterals.

As a result of this homogeneous and solid Branding strategy, the project aims at achieving the following outcomes:

- More effective memorisation and visual identification;
- Improved recognition and acknowledgement across a broad range of recipients;
- Strengthened loyalty and trust from the audience;
- Sustain the overall message that REINFORCE wants to convey.

Information of EU funding will always be present by a prominently displayed EU emblem and the text suggested in the Grant Agreement: "The REINFORCE project has received funding from the European Union's Horizon 2020 project call H2020-SwafS-2018-2020 funded project Grant Agreement no. 872859". Further it will be disclaimed that the content does not represent the opinion of the European Commission and the European Commission is not responsible for any use that might be made of such content.

The use of the logo with any colours other than the REIFORCE corporate reds is not permitted. Please see the following images for examples of proper colour usage.

The specifications for REINFORCE's corporate dark and light red are the following:

HEX: #812529
HSB: 357°, 70%, 50%
RGB: 129,37,41

HEX: #AA3339
HSB: 355°, 69%, 66%
RGB: 170,51,57

4 Communication Tools and Channels (D10.2)

REINFORCE set-up different communication tools and channels to reach stakeholders leveraging consolidated networks and new engagement mechanisms.

An exhaustive overview of the dissemination materials produced till the date of writing was provided in Deliverable 10.2

The core elements of the document are highlighted below.

4.1 Templates

Templates for external communication and documents were set-up. Presentations templates are already available including on the last page a call to join the REINFORCE community and to connect with our main channels. The rationale behind this strategy is to guarantee univocal communication style and provide the entire REINFORCE team with a shared toolkit of Communication items to be deployed in recurring events.

FIGURE 1 – DELIVERABLE TEMPLATE
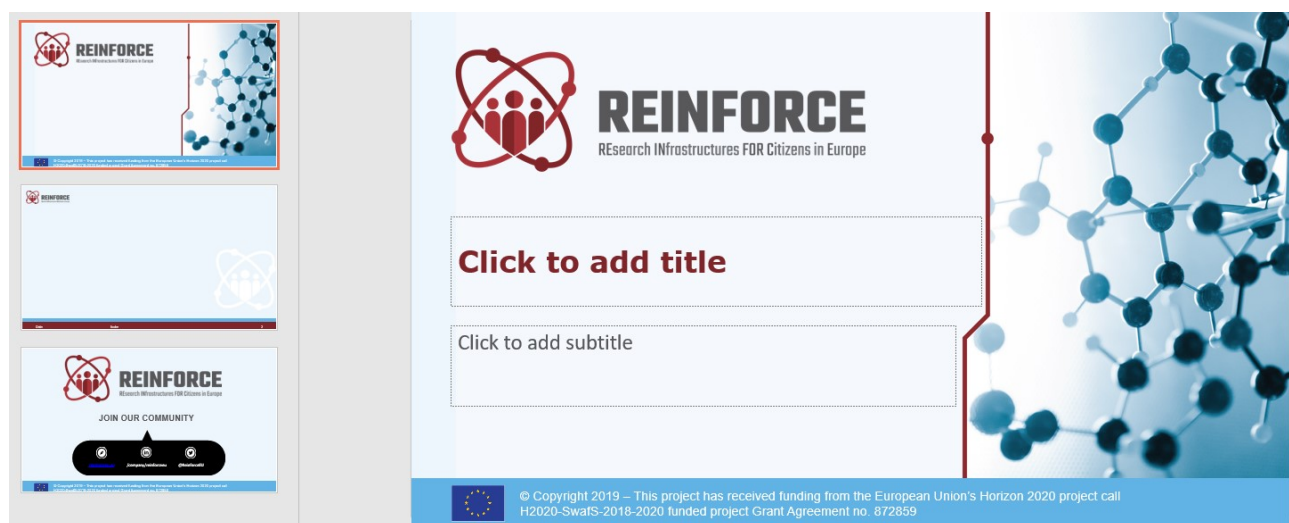
FIGURE 2 – PPT TEMPLATE

4.2 Website

The project website (www.reinforceeu.eu) will be the heart of the communication, dissemination and engagement tools and channels of REINFORCE.

This will be used as the access point for the REINFORCE use cases updates, trainings and articles for future findings on Gravitational Wave Astronomy, Neutrino Astronomy, High Energy Physics, and the interplay of Cosmic Rays with Geoscience and Archaeology. In addition, it will showcase the project's objectives, the partners involved and events related to citizen science and frontier Physics. The Website will also be a catch-all platform to store the most critical outputs and deliverables achieved by the project throughout its lifespan. The Website will also represent the official hub to store all the Public Deliverable produced in the course of the project, to be regularly updated in the forthcoming of the delivery dates.

The Platform will conveniently respond to the latest IT criteria in order to grant adequate degree of responsiveness, UX design, loading speed, smooth usability, appealing graphics and essential factors to facilitate a successful SEO ranking.

The initial REINFORCE landing page was created on M1 of the project. The iteration and full development of the official website will be done on the M5 is expected to be completed in the second half of 2020.
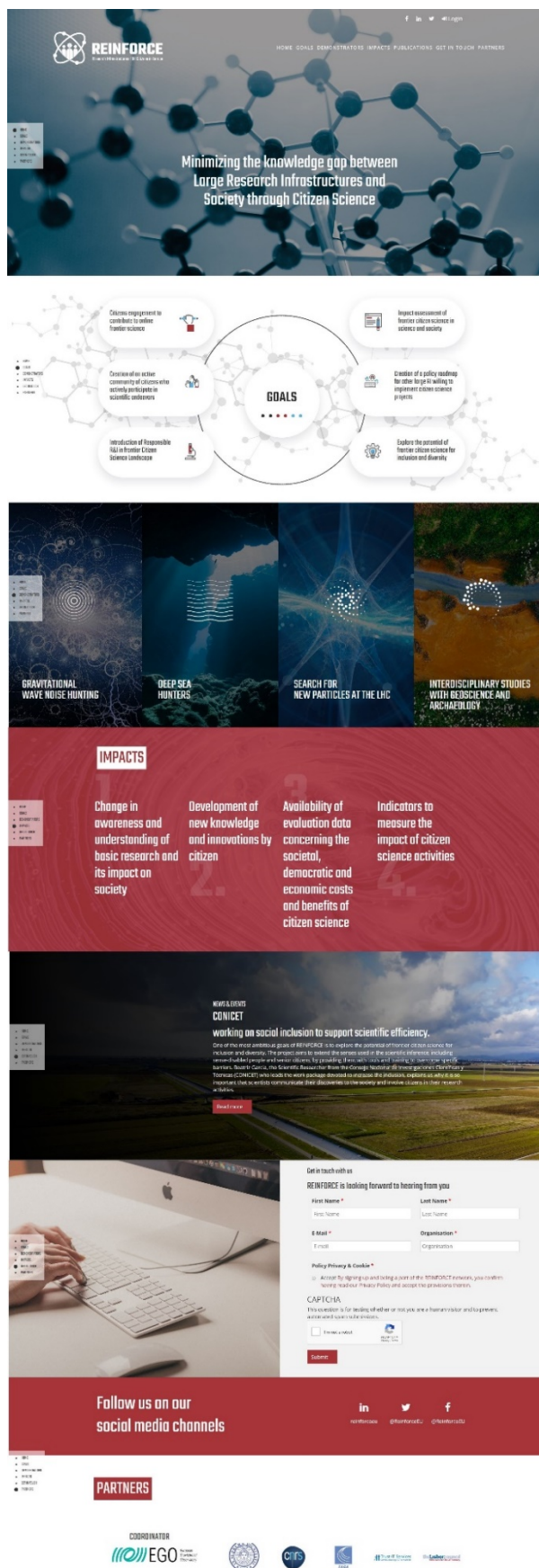
FIGURE 3 – LANDING PAGE

4.3 Social media

Social media are a core element of REINFORCE communication, especially to follow ongoing developments and to connect with different stakeholders. REINFORCE uses Social Media channels and professional networks such as Twitter, LinkedIn, Facebook, and YouTube in order to build a stronger and highly engaged REINFORCE community.
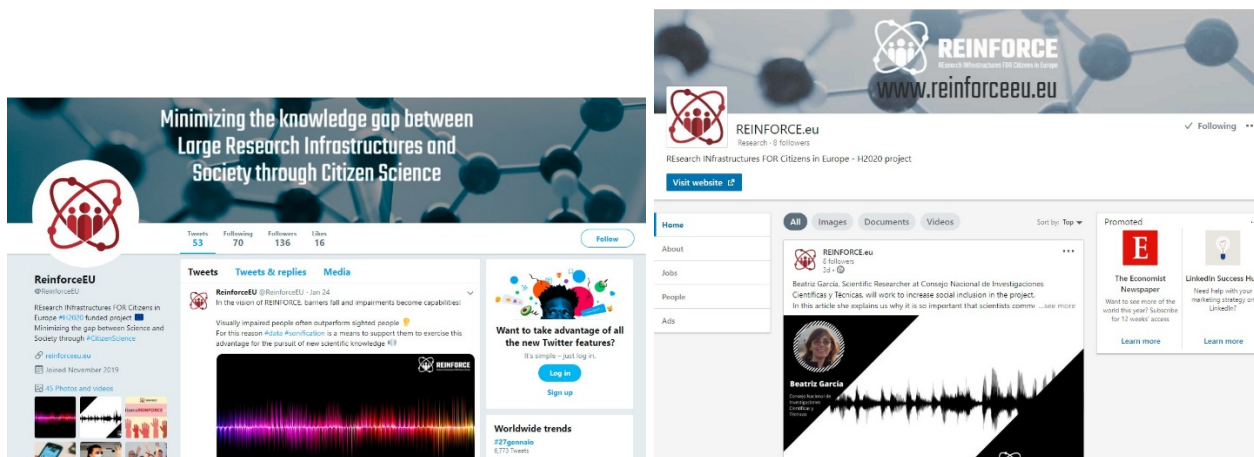
FIGURE 4 – REINFORCE TWITTER and LINKEDIN ACCOUNTS

4.4 Events

In order to maximise the impact towards REINFORCE stakeholders in collaboration with all the WPs, WP10 will be promoting and supporting the organisation of EU-wide workshops, trainings, science café, laboratory open days, webinars, and other kind of events.

4.4.1 Webinar

A webinar series is one of the tailored dissemination and outreach activities to attract interest of specific communities. A set of five (5) specific webinars will be organised and broadcasted (and eventually published for playback) to support the training elements in the other WPs showcasing the latest Large-Scale Citizen Science Demonstrators results and impact.

4.4.2 Physical events

Besides participating in conferences, expeditions and other events, REINFORCE will organise three annual events, culminating the third year in a final conference serving as a moment for disseminating the main achievements of the initiative and engaging with new members for the community. High-level policy makers will be invited to take part and to present in such events.

These events also aim to consolidate the project network and facilitate cross-pollination between representatives from the Citizen Science communities, users within the scientific communities, and public and private sector stakeholders.

Every REINFORCE related event, workshop, or webinar will be communicated and posted on the dedicated section of REINFORCE' website and social media channels, covering pre-, during-, and post-event activities.

WP10 together with WP8 created a REINFORCE Event tracker taking into consideration the related events, in the fields of Citizen Science, Science Education, Physics and Open Science.

4.5 Video

Videos are part of the continuous communication of project activities through online content.

Three first video interviews were created from the REINFORCE meeting that took place on the 16th of January 2020 at EGO, highlighting relevant WPs members from the REINFORCE consortium who answered a set of questions and.

- How will your expertise contribute to the success of the project?
- Why do you think it is necessary to bridge the gap between science and society?
- Which impact do you expect REINFORCE will have on citizens?
- Could you share a take-away message for the citizens that will be engaged in the project?

The video interviews were promoted though REINFORCE' social media channels. Other video interviews to the main actors of the project and the related end-users will be created in the following months.
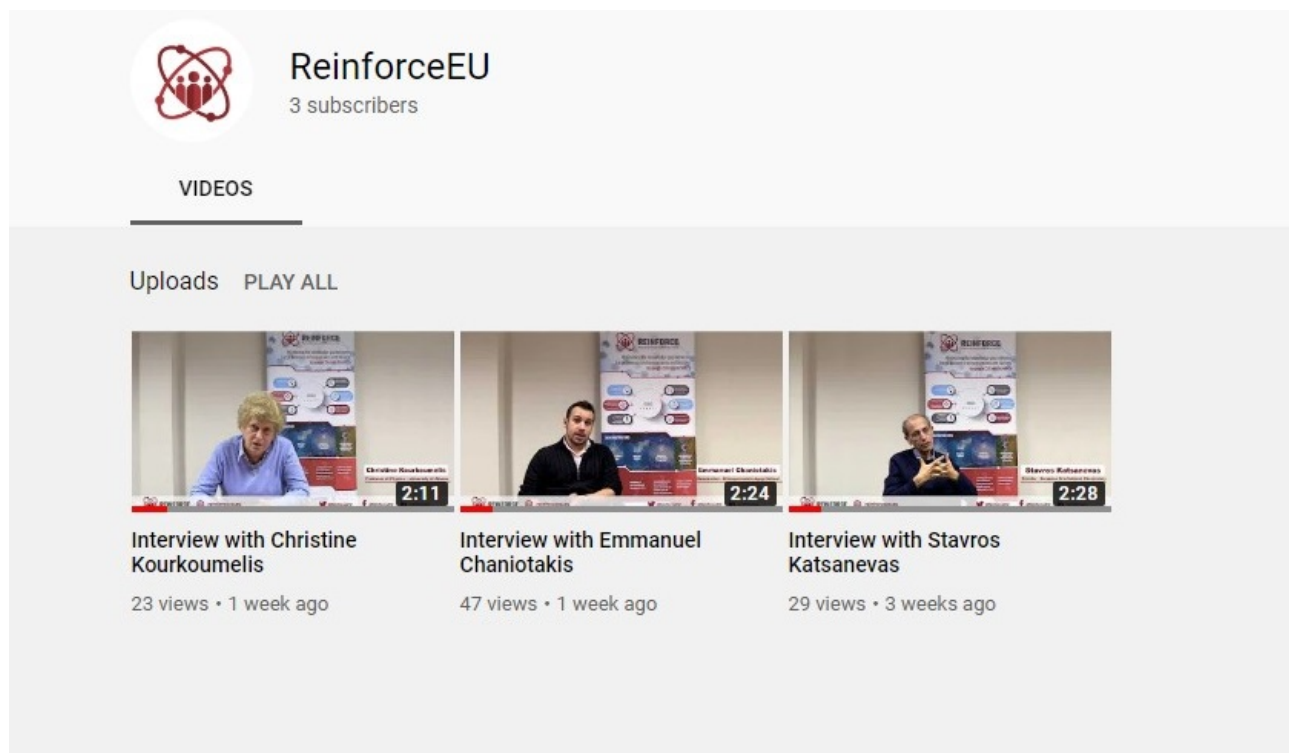
FIGURE 5 – VIDEO INTERVIEWS PUBLISHED ON REINFORCE' Youtube CHANNEL

4.6 Timeline of activities

The purpose of creating the timeline of activities as outlined in Figure 6 Timeline [M1-M12] is to map the results as well as to match the outreach activities as indicated in the Timeline itself.
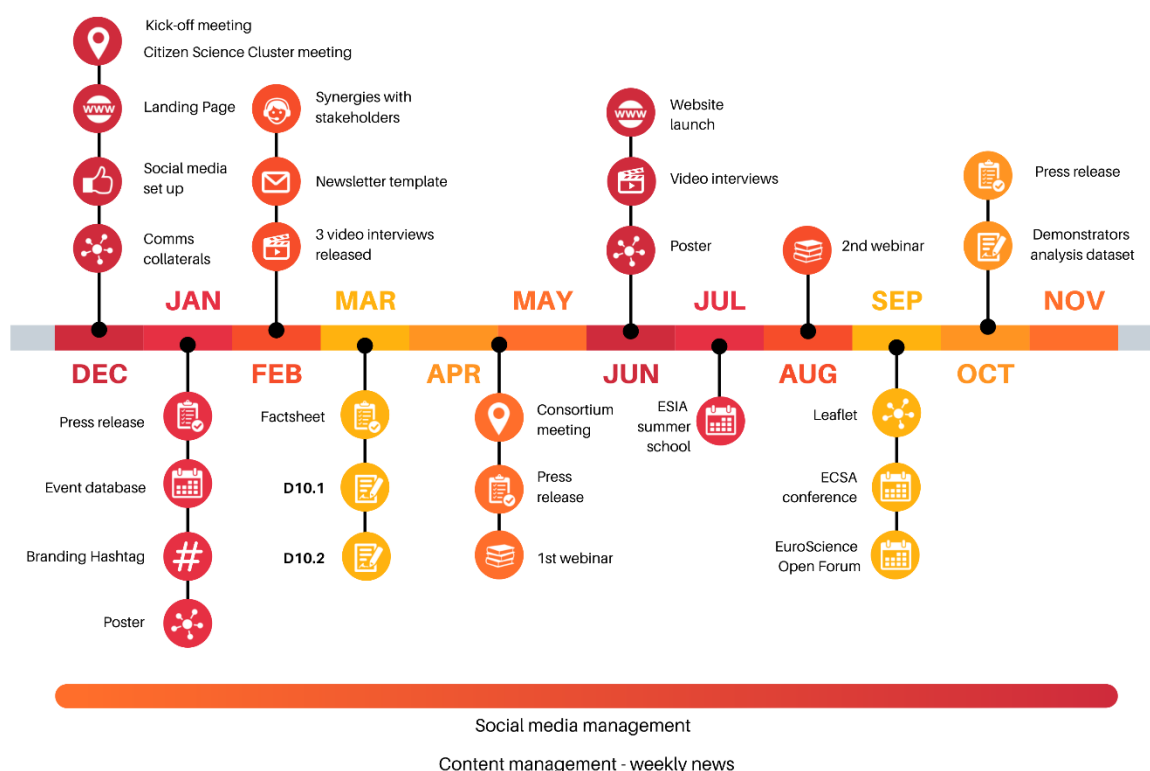
FIGURE 6 - TIMELINE

5 Conclusion

This document sets the beginning of the Communication and Dissemination Plan of the REINFORCE Project, with its goals and specific actions to be carried out. As such, this document constitutes the reference plan to which all partners commit to contribute (with the different degree of effort foreseen by the REINFOCE work plan, as stated in the Grant Agreement).
Some of the foundational elements pointed out by the present document are the following:

- REINFORCE will build on a highly committed Scientific and Research community that should encompass members of universities, PhD students, large research infrastructures, research centres, similar EU funded projects within the citizen science domain, Policy Makers and Industry associations active both at national and European level.

- The active and continuous contribution of each member of the Consortium will be fundamental to accomplish the list of objectives described in this plan. The personal network of affiliates, partners and contacts of every member will be extensively used and will play a substantial role to ensure a proper promotion and dissemination strategy for the project, along its whole lifetime.

- The impacts of REINFORCE communication activities on the Scientific community will be monitored continuously, by means of a set of measurable KPIs, which have been indicated in the present document.

- Website release. A new functional website will constitute the official platform to more effectively reach out the desired Stakeholders and better promote the cutting-edge results of the Project.
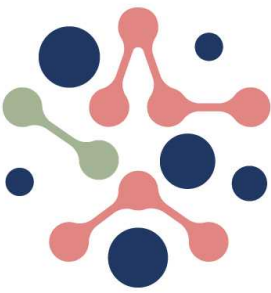
- The organisation of a recurring annual event and Webinars will be the chance to consolidate the project network, attract new Stakeholders and spark inter-collaboration.

Leveraging this framework, large communication campaigns will be designed by the project consortium and accompanied by the production and release of multiple dissemination material, in pursuit of the following goals:
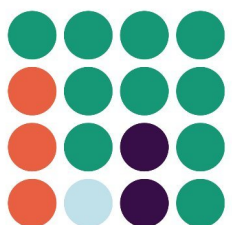
- Guarantee a harmonised, solid and common public image of the project, facilitating its recognition, raising awareness about it and attracting the relevant target groups.
- Ensure proper visibility of the project's actions, activities and events.
- Disseminate adequately the project's outputs to policy makers at different levels, the research and scientific community, citizens and businesses.
- Disseminate to a wide array of stakeholders the learning and material produced by the project.
- Exploit similar international networks of citizen science initiatives through the involved partners for a more effective outreach.

Annex I - REINFORCE Twitter followers (March 2020)

Organization	Logo	Handle	No. of followers	Stakeholder group
EU Research Results		@CORDIS_EU	33.2K	
OpenAIRE		@OpenAIRE_eu	12.6K	Scientific & research community
SciStarter		@SciStarter	12.2K	Scientific & research community
Istituto Nazionale di Fisica Nucleare		@INFN_	10.9K	Scientific & research community
Associació Catalana de Comunicació Científica		@ACCC_	10.2K	Scientific & research community
EGO-Virgo		@ego_virgo	8.7K	Partner

RRI Tools		@RRITools	4.9K	EU project
EU-Citizen.Science		@EUCitSciProject	2.5K	EU project
Australian Citizen Science Association		@CitSciOZ	4.9K	Scientific & research community
ECSA		@EuCitSci	3K	Scientific & research community
Zentrum für CS		@_CitizenScience	1.4K	Scientific & research community
Crowdhelix		@Crowdhelix	1K	Scientific & research community

OpenSystems		@OpenSystemsUB	1.7K	Scientific & research community
ESIA - European School Innovation Academy		@esia_eu	184	Scientific & research community
MICS project		@MICSproject	239	EU project
COS4CLOUD		@Cos4Cloud	309	EU project
Open Science Platform		@OpenSciPlatform	742	Scientific & research community
Citizen Science Global Partnership		@CitSciGlobal	467	Scientific & research community

CitieS-Health project		@CitieSHealthEU	816	EU project
ESCAPE		@ESCAPE_EU	296	EU project
Asterics		@asterics2020	311	EU project
CHERRIES		@CHERRIES_eu	101	EU project
WeCount		@WecountH	119	EU project
INOS Project		@INOSproject	144	EU project

ZSI Research Policy		@zsi_fe	1K	Partner
SUPER_MoRRI		@MorriSuper	431	EU project
ACTION PROJECT		@ACTION4CS	390	EU project
Fundación Ibercivis		@Ibercivis	3.5K	Industry/innovation
VA (Public & Science)		@vetenskapoallm	8.1K	Industry/innovation