D10.6 DC&SE report

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EXECUTIVE SUMMARY

The present report aims to track progress made with dissemination, communications and stakeholders' engagement (DC&SE) actions during the second year of the project (1st January 2022 – 31st December 2022) to maximise BRAINTEASER's impact so far.

This document will report actions recommended and/or guided by the first release of the project's DC&SE Strategy and Plan (D10.1), submitted in June 2021. All the activities undertaken in this context are here addressed as well as challenges, risks, means of mitigation, and lessons learned from such actions.

In particular, this report will examine how BRAINTEASER has:

- Implemented communication and dissemination activities to ensure that all project results reach the appropriate audience and achieve the expected impacts.

- Monitoring the impact of dissemination and adapting strategies and methodologies as deemed necessary.

- Involved all partners to execute the initial DC&SE strategy plan correctly and completely.

- Coordinated with external stakeholders (patients, health care professionals, regulators, policy makers), as well as other related projects and institutions to ensure a high reach of communication activities.

In completing this report, both a comprehensive overview of the activities, resources and capabilities involved in DC&SE efforts and the potential operational guidance for key partners tasked with maximising outreach and impact has been provided.

The underlying approach to the report drafting will prove essential for future reviews of the project's ability to improve, adapt and then leverage the outputs and achievements made. Basing on the lessons learned and results achieved during the first 2 years of the projects, the Dissemination Communication and Stakeholders Engagement Strategy and Plan has been updated accordingly (D10.2 DC&SE Strategy and Plan - M24)

LIST OF ABBREVIATIONS AND GLOSSARY

Acronym	Full name / definition
DC&SE	Dissemination Communication & Stakeholder Engagement
WP	Work Package
ALS	Amyotrophic Lateral Sclerosis
MS	Multiple Sclerosis
DoA	Description of Action
AI	Artificial Intelligence
EU	European Union
EC	European Commission
Grey literature	Common grey literature publication types include reports (annual, research, technical, project, etc.), working papers, government documents, white papers and evaluations. Organizations that produce grey literature include government departments and agencies, civil society or non-governmental organizations, academic centres and departments, and private companies and consultants.
Open Evaluation Challenges	Large-scale public evaluation initiatives to validate the solutions developed by the project with respect to third-party approaches.
Community of Practice (CoP)	An innovation community to create new breakthrough ideas, approaches, and knowledge.

1 INTRODUCTION

The BRAINTEASER's DC&SE Strategy follows an exploitation-driven dissemination approach. The design, maintenance, implementation and monitoring of the strategy form part of WP10. However, several other WPs implement different stakeholder engagement actions throughout the life course of the project to secure proactive involvement in co-creation processes, as well as endorsement of and institutional commitment to large-scale uptake overall. Additionally, all consortium partners have committed to dissemination activities per their foreseen role, effort and potential outreach to groups of interest. The various, pre-defined dissemination, communications and stakeholder engagement activities in alignment with our targeted audiences can be subject to changes or cessation depending on reporting results and recommendations.

The overarching goal of BRAINTEASER is to exploit the value of **Big Data** from a range of different sources (i.e., health, lifestyle habits, and environment) and of **Artificial Intelligence** methodologies to better support patients and clinicians in Amyotrophic Lateral Sclerosis (**ALS**) and Multiple Sclerosis (**MS**) management. The DC&SE strategy aims to help fulfil such an objective via three primary aims:

- Promote BRAINTEASER's key assets, including the know-how built from pilots' experience,

- Build and enlarge the BRAINTEASER stakeholder community at international level,

- Lay the groundwork for a strong BRAINTEASER market positioning and exploitation strategy.

Each of these aims is being tackled through the implementation of activities across the project's work packages on the basis of 4 strategic DC&SE pillars:

- **Raise awareness:** through communication: All the EU stakeholders relevant to BRAINTEASER should become aware of the aims, actions and achievements of the project and more widely, of their available assets and resources,

- **Create engagement:** Through a variety of initiatives, online tools, events, consultations, open challenges, community of practice etc. BRAINTEASER aims to attract and engage innovators and potential customers and users from all over Europe,

- **Secure participation:** Facilitating access to relevant information in order to better understanding of BRAINTEASER technologies and initiatives, including existing testbeds, deployment sites, resources, trials and services, which are key to stimulate active involvement and market uptake,

- **Enable uptake:** BRAINTEASER will go beyond the traditional dissemination and communication plans by gathering and disseminating evidence on the economic and social benefits of project assets and services, to embed such evidence in a value proposition in order to pave the way for its exploitation beyond the project's end.

2   METHODOLOGICAL APPROACH

The DC&SE plan developed during BRAINTEASER's first 6 months and recently updated is guiding the overall dissemination and communications.

So far, activities have focused mainly on the first two stages of the DC&SE strategy, namely the awareness and consideration phases. While during the first project's year effort has been devoted mostly on raising awareness on the project amongst the general public and various initial stakeholder groups, the second year has been dedicated to the production of strategic content communicated to an audience already more familiar with the BRAINTEASER's solution.
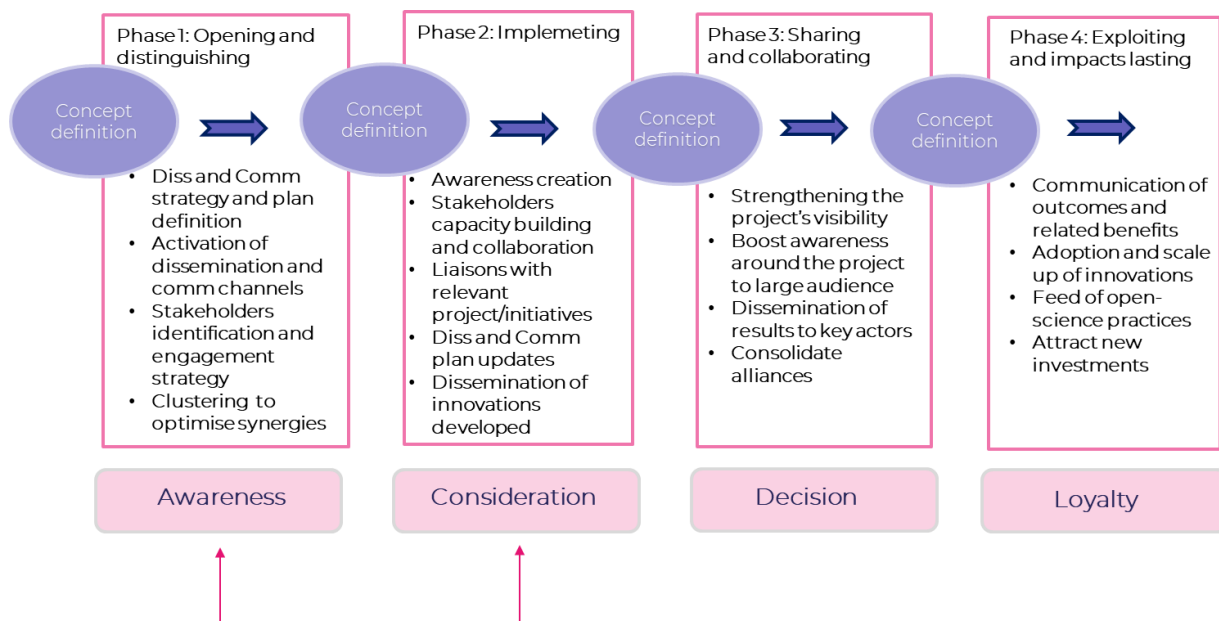
Figure 1. BRAINTEASER Communication, Engagement and Dissemination timeline.

To better organise the planning of the work of the dissemination, communication and stakeholders' engagement activities and the assessment of the related outcomes, ECHAlliance, in its role of WP10 and task 10.3 leader, has set up, at the beginning of the project, the BRAINTEASER **Dissemination & Communication Group** composed by identified contacts from each consortium partner.

Even during the second year of the project, the periodic meetings of the Group proved their effectiveness in better evaluating the activities carried out and jointly planning future actions. The Group meetings have also made the internal communication very simple, facilitating the achievement of common positions on plans definition and on the operational actions to be implemented. The outcomes of each coordination meeting guided the activities to be carried out, individually or collectively, in subsequent periods.

All in all, implementing DC&SE activities have fallen under the aims to optimise outputs and thereby ensure sustainability throughout and beyond the project. For the BRAINTEASER project, maximal impact and sustainability have represented a high priority, so that all actions can eventually mean long-lasting positive change for citizens, communities and health systems.

During 2022, WP10 has cooperated closely with all project's WPs to fulfil the aforementioned aims, adapting to ever-changing scenarios to meet evolving stakeholders' needs to incorporate novel yet relevant technologies and multiple stakeholders' perspectives for long-term sustainability.

The figure below demonstrates how BRAINTEASER envisions the "Communication – Dissemination – Sustainability" triangle.
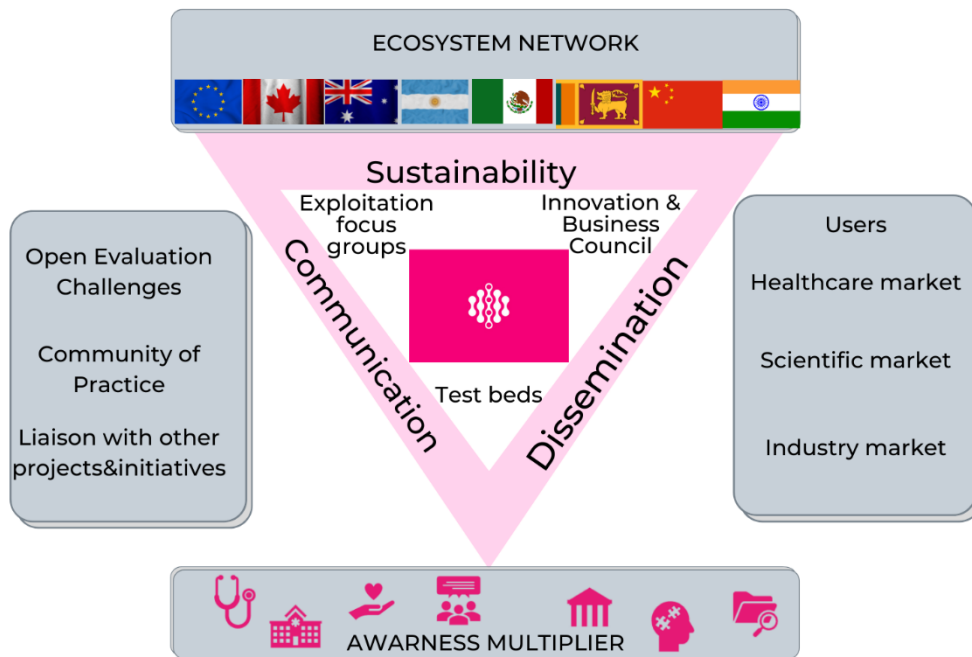
Figure 2. BRAINTEASER communication, dissemination, and sustainability triangle.

With the aim of capturing the completeness of DC&SE actions and their impact from all consortium members, the Excel-based monitoring and reporting tool developed at the beginning of the project has been used.

Using this tool, all partners reported information, links and supporting documented related to their communications and dissemination activities undertaken during year 2. Seven primary sheets were used for reporting and analysis purposes, including:

- Online communications activities,
- Scientific publications,
- Conference publications,
- Events tracker,
- Press clippings,
- Other activities,
- Printed materials used and distributed.

Working from a global-to-granular perspective, this report will take an in-depth look at DC&SE activities, whilst considering the interlinking framework of communication-

dissemination-sustainability for maximal project impact. To guide this analysis, a comparison between the key performance indicators set in the project's DoA against outcomes achieved by the consortium will be made. Finally, the report will be concluded with challenges recognised, lessons learned and recommendations to build upon achievements and reinforce the "Communications-Dissemination-Sustainability" triangle.

3 STAKEHOLDERS' IDENTIFICATION AND MAPPING: ACTIONS AND RESULTS ACHIEVED

BRAINTEASER activities and results can have a relevant and positive impact towards a full range of stakeholders. Main categories mapped, engaged and reached so far with the project's dissemination and communication activities are depicted in the figure below.

Figure 3. Stakeholder categories targeted by BRAINTEASER DC&SE activities.

3.1 Key stakeholders, interests and expectations and DC&SE Actions

The table below provides the list of stakeholders' categories, their relevance for the project and the DC&SE activities undertaken during year 2. Additionally, with the aim to provide more clarity by means of impact, the following section (section 4) will examine DC&SE actions by formats and pre-defined key performance indicators (KPI).
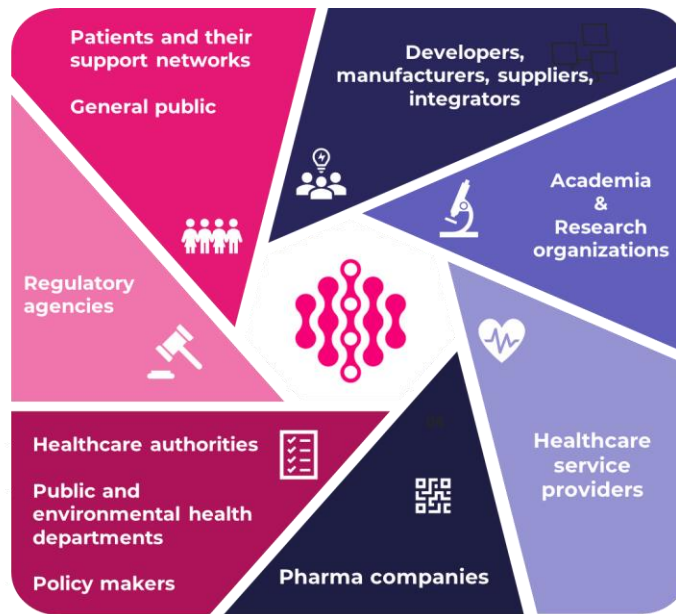
Table 1. Relevant stakeholders, interests and main actions undertaken during year 2.

Category	Relevance	DC&SE main actions and channels in year 2 of the action
Patients and their support networks as well as the general public	They are the ultimate beneficiaries of all BRAINTEASER tools and services created, deployed and evaluated. Particularly relevant to support one key feature of the project methodology that is co-creation with end users.	General actions included: - Continuous update of the BRAINTEASER website and social media accounts (LinkedIn/Twitter) with relevant content and project's events announcements - Release of the third and fourth newsletters - Involvement of patients' organisations in the project's first exploitation workshop panel discussion - Presentation of the project's in a number of large events (i.e DHSS and Brain Innovation Days) - Information about the project published on partners newsletters and web sites
Healthcare services providers (clinicians, hospital facilities, executives and decision makers)	Together with the previous category, they are the core end users of the BRAINTEASER tools and services. Fully involved in the project's co-creation initiatives.	The ongoing research findings of the BRAINTESER project are openly made available on the project web site in the Resources section. Clinicians have been involved in the panel discussion of the first exploitation workshop aimed at guiding the BRAINTEASER consortium in designing the most suitable exploitation path and will be involved in the second edition of the workshop already planned for early 2023. Health care services providers have been part of the audience attending a number of events in which BRAINTEASER has been showcased (i.e DHSS, Brain Innovation Days, I big data nelle neuroscienze traslazionali, The Digital Healthcare Show, ICOST 2022).

Category	Relevance	DC&SE main actions and channels in year 2 of the action
Academia and research organizations	Bring essential know-how, disruptive ideas and solid multi-disciplinary backgrounds to the BRAINTEASER.	The scientific publications already made research and innovators communities. The project's public deliverables are accessible on the project website. The BRAINTEASER Open Evaluation Challenge, first edition, proceedings and publications are openly consultable; information about the second open challenge are already published together with instructions to participate and registration facility. All the international conferences in which BRAINTEASER has been presented during 2022 have registered a large participation of the scientific community.
Developers, manufacturers, suppliers, integrators	They lead innovation designing smart services and apps which are more usable, useful and affordable for users, using AI, Intelligent systems, big data and other emerging technologies	The BRAINTEASER Open Evaluation Challenges are conceived to meet the interest of this stakeholder group and to actively involve them in the design and develop of the evaluation infrastructure. ICT companies have been involved in the first exploitation workshop panel discussion and their presence is confirmed in the workshop second edition. Massive their participation in events such as IOT Solutions World Congress and ICCE-Berlin 2022, above others. Stable one2one conversations have been established with two ICT providers actively involved in the project's activities: Atmotube and Garmin.
Pharma Companies	Artificial Intelligence can improve the drug discovery process, enabling the identification of disease patterns in large datasets. The pharma industry will actively execute AI strategies to remain competitive and, as such, it represents one of the main project's key target groups for	All the external events in which BRAINTEASER has been presented during 2022 accounted for a sound participation of the pharmaceutical industry. Pharma companies will be fully involved in the second and third edition of the Exploitation and Sustainability Focus Groups, as key participants of the related co-design workshops. Ad-hoc communication will be used to involve them in the project's annual Open Evaluation Challenges.

Category	Relevance	DC&SE main actions and channels in year 2 of the action
	BRAINTEASER results sustainability.	
Healthcare authorities, public and environmental health departments, and policy makers	National and regional authorities are the key decision makers, procurers and payers in the healthcare systems.	Health authorities and policy makers have participated to the DHSS 2022 organised by ECHAlliance and the Digital Health Society (DHS). The DHS, a movement and a legacy of the Estonian Presidency of the Council of the European Union in 2017, works with interested EU Presidencies and multi stakeholders to promote digital health policies, services and products and focuses on health data and data management. Policy Makers and payers in the healthcare systems will be permanent guests of the BRAINTEASER Exploitation and Sustainability Focus Group.
Policy regulators (standardisation bodies, certification bodies)	Scientific knowledge is keystone for regulatory decision making. Many H2020 projects generate data of direct relevance to regulatory authorities, health technology assessment and payers.	Regulatory agencies and standardisation bodies are actors fully addressed by BRAINTEASER CoP (with dedicated services). In the first Exploitation and Sustainability Focus Group workshop, HL7 has already participated as panellist and in the programme of the second workshop of the Exploitation Focus Group has been already planned to reinforce the presence of policy regulators.

4 IN-DEPTH LOOK AT THE DC&SE ACTION PERFORMANCE (YEAR 2)

The Dissemination and Communication Manager (ECHAlliance) is responsible for processing, analysing and reporting communications and disseminations actions undertaken in year 2. While the previous section of this deliverable provided a global overview of DC&SE activities, this section aims to review the project's performance using the pre-established and approved key performance indicators (KPIs) and respective targets.

Reasoning for such outcomes and recommendations will be provided as well. These recommendations aim to either expand upon the success achieved or, conversely, pivot strategy within the scope of the updated versions of the DC&SE plans to deliver more suitable results during the following years of BRAINTEASER activity.

Table 2. KPI and outcomes for DC&SE actions during year 2.

Communication means	Key Performance Indicator (KPI)	PKI	Outcome in Year 2
Project website	No. of web visits	1.000 visits/year	4349 visits
Partners' website	No. of published info/news	≥ 5/year BRAINTEASER info/news	Not all partners have reached the target while others have exceeded it. Details are given in section 4.1.2
Newsletter	No. of issues	2/year	2 issues (June and December)
Press release	No. of issues	1/year	1 delivered in December '22 and a second under preparation to be shared in early January '23. Details in section 4.6
Scientific publications (by scientific/technical partners)	No. of publications	≥ 5/year	9
Social media (Twitter and LinkedIn)	No. of followers	1.000 followers in total	440 (Twitter 170 – LinkedIn 270)
Participation to external events	No. of events attended	4/year	16
Consortium organised events (for Y2)			
Mid-term workshop (M24)	Participants	Participants: ≥40	Although this event was to be organized at the end of the second year, it was decided to move it to the end of February 2023 in order to connect it to the next Consortium plenary meeting. Details about the midterm workshop organisation are here

4.1 Digital Communications, Positioning and Outreach Analysis

4.1.1 Project's Website

The website for BRAINTEASER (https://brainteaser.health/) was launched during mid-year 1 of the project. Since then, it has seen positive growth in terms of website visits (synonymous with "sessions" in Google Analytics) and page views.

As it follows the natural evolution of the project's activities and its achieved results, a number of new sections and updates of existing ones has been implemented during 2022.

New sections are:

- Resources: here the project's pubic deliverables, scientific papers and published materials are included for free consultation;
- IDPP@CLEF 2023: it presents all the information needed to participate to the new edition of the project's Open Evaluation Challenges;
- Community of Practice: dedicated to the collaborative space created by BRAINTEASER for clinicians, experts by experience, caregivers, and general public with interest in the use of artificial intelligence and other digital tools for the management of Amyotrophic lateral sclerosis (ALS) and Multiple Sclerosis (MS) diseases. The page is already designed, and will go live by the end of the year or in early 2023.
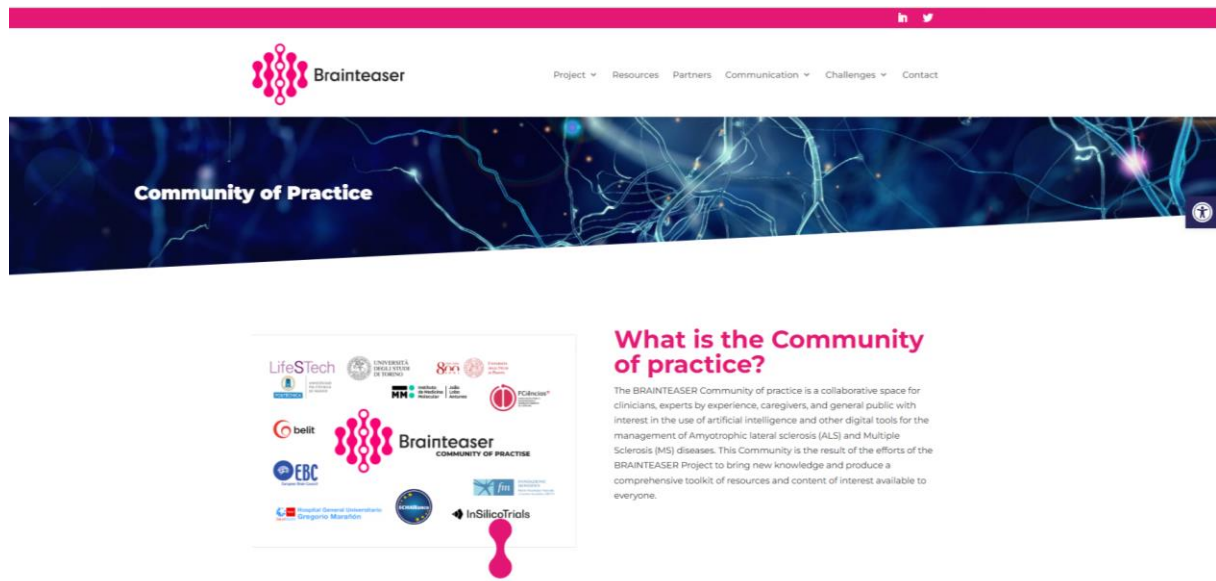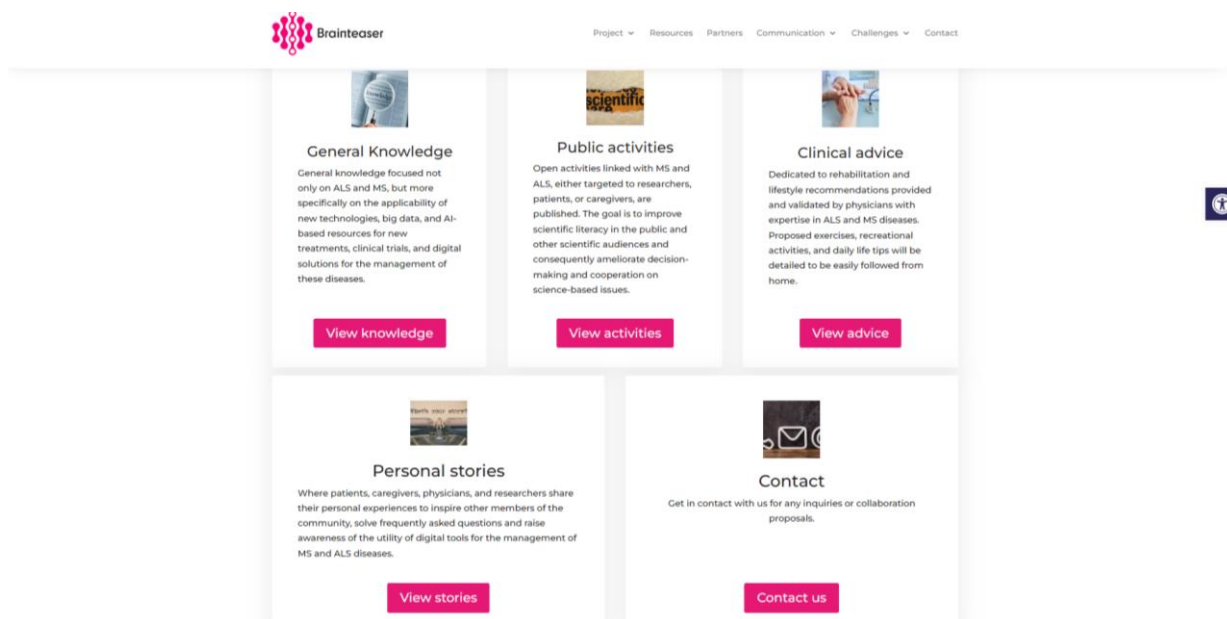
Figure 4. BRAINTEASER CoP page preview.

Updated section:

- IDPP@CLEF 2022: the page has been updated after the challenge completion including the agenda of the lab, the presentations made and the scientific papers submitted and discussed.

The key performance indicator for the website was set at 1000 visits per year. During year 2, the web site had 4,349 visits and 8,508 page views. This means that not only did **the set KPI was exceeded (334.9% increase)** but users were perusing the website much more frequently. In comparison to the number of page views last year, an overall 347% increase is reported.

These high figures represent great degree of visibility for the project and reflect the effects of stronger, more focused actions by both the communications team and BRAINTEASER consortium.

For example, consortium members were extremely active online and offline, sharing news and information about the project. Multiple members participated in two major panel discussions of the Digital Health Society (DHS) Summit, a well-known virtual event that plays host to large audiences on both European and international levels. At the DHSS, BRAINTEASER was able to leverage its virtual booth and presentation to reach a greater audience and share information related to the website.

At the same time, it has been evident how interest in an event like the Open Evaluation Challenge or in scientific resources could be leveraged to re-direct individuals to the BRAINTEASER website. There is, indeed, a specific page on the website dedicated to the outputs and insights gained from the challenge. There is also another page that showcases scientific publications from consortium members and allows other external MS/ALS-related investigators to find papers that can prove valuable for their work. By sharing the same host space, the probability of piquing users' interest in the project and its progress has been increased.

Additionally, simplified language and text may provide another explanation for BRAINTEASER's robust website performance in year 2. The subject matter for this project is complex and extensive. However, strong efforts were made to condense and clarify the language so website viewers, especially citizens, could understand the tenets of the project. The text was also presented in a way that would be visually appealing and facilitate reading. For example, having a look at this article written by consortium member European Brain Council, it is evident how the topic was broken down into questions that readers could ask. These aspects are important, as readers do not become overwhelmed and deterred from the text, and desire to stay on the website. In fact, for every session (a 30-minute visit), users would view approximately 2 pages of the website.

These are the recommendations to continue building viewership and user sessions include:

1. Promoting project and website awareness through participation in virtual and on-site events,
2. Promoting project and website awareness through social media campaign pushes,
3. Continue creating content that reads in layperson language whilst upholding the integrity of the content thereof,
4. Taking advantage of the third year to dive into a deeper understanding of how website visitors are interacting with the different elements of the BRAINTEASER website and make recommendations for improvements,
5. Strengthening the content of the most recent pages added to the website, including adding the scientific publications, possible interviews, and more. Additional resources and links can help redirect audiences to the page and afford them the opportunity to peruse the website.

4.1.2 Partners' Websites and social media communication

The table below gives a specific overview of partners' contribution and support to the BRAINTEASER online communication activities during year 2.

Table 3. Outcomes of partners' online communication activities during year 2.

Partner	Website/Blog posts	Twitter No. tweets/ retweets	LinkedIn No. posts	Newsletter No. articles
UPM	-	10 tweets	2	-
UNIPD	1. iDPP@CLEF 2022 in Bologna – Where Experimental Information Retrieval Meets Multilinguality, Multimodality, and Interaction	33 tweets	7	-
FC.ID	1. WORLD PARKINSON'S DAY 2.LASIGE CO-ORGANIZER OF CHALLENGE IDPP@CLEF 2022	-	2	2

Partner	Website/Blog posts	Twitter No. tweets/ retweets	LinkedIn No. posts	Newsletter No. articles
	3. LASIGE PUBLISHED IN THE JOURNAL OF BIOMEDICAL INFORMATICS			
UNITO	-	10 tweets		-
iMM	-	2 tweets	1	-
SERMAS	-	-	-	-
MNDN-PV	-	49 retweets		-
BELIT	1. ICOST 2022 2 SoftCOM 2022	13 tweets	12	-
IST	1.News on our collaborations within EU Horizon 2020 projects: BRAINTEASER interview with Nicola Ferro	17 tweets	14	-
ECHA	1.BRAINTEASER Focus Groups: suitable exploitation routes co-design first online workshop 2. 3rd Brainteaser Newsletter 3. BRAINTEASER Conference Paper on Design and Optimization of REST Service Layer presented at ICCE Berlin 2022 4. BRAINTEASER contribution to the DHSS 2022 5. BRAINTEASER takes part in the Brain Innovation Days 2022 6. BRAINTEASER Half project's way: the midterm workshop	10 tweets – 35 retweets	12	7
EBC	-	7 tweets - 10 retweets	6	8 (6 on the internal newsletter "Brainy Insights", 2 on the EBC monthly Newsletters)

4.1.3   Newsletter

In June 2022, BRAINTEASER released its third newsletter to subscribers and followers of the project. The third issue aimed to address the concerns and needs of a more specific stakeholder audience (patients and patient organisations). This meant that there was insight and knowledge about:

- Funding opportunities and news pieces related to MS/ALS from patient organisations
- Project highlights that directly involve or could affect patients and patient organisations
- Upcoming events
- Practical tips to strengthen patient organisations
- And more…

Figure 5. Preview of BRAINTEASER Newsletter (June 2022 issue).

The newsletter was unique in that it took a different approach than that used in previous newsletters. In this case, the text aimed to focus in on a more specific group that is critical to the success of the project-patients and patient organisations. The aim of the changes was to increase value proposition; encourage their involvement in and awareness of BRAINTEASER; and reinforce the perception that this digital health project is, indeed, patient-centric. With respect to the latter item, strengthening the notion that patient centricity is integral to BRAINTEASER supports the exploitation and sustainability efforts being pursued internally.

It is worth noting that whilst no specific KPI for newsletter performance was set, it has appeared to continue doing well. More than 50% of recipients opened the newsletter. Furthermore, it is extremely important to highlight that the number of subscribers (from the second newsletter issue) rose from 65 to 117 in total. **This is about an 80% increase in the BRAINTEASER subscriber base**!

Furthermore, we would like to add that this positive trend in subscribers is attributable to synergistic outreach efforts by the consortium, i.e., contacting a well-curated list of MS/ALS researchers and related contacts.

The fourth issue of the project newsletter is expected to be released before December 22nd, 2022. In the same vein as the previous newsletter, which was to center messaging and newsletter items, the focus has been shift to a more exploitation-oriented approach. This change arose for two primary reasons:

- There have been strong developments in the project, including the kick-off of pilot sites and the MVP creation of apps and AI models. This means there was a need to highlight this progress to the different audiences and support objectives related to eventual uptake

- There has also been a rise in expressed interest in the project from the United States. In the last newsletter, 78.3% of the readership was based in the North American country.

The structure of this newsletter has decided to respect the layout seen in the last one; however, it includes two core differences:

- "Why to invest" – this section would include article pieces, videos or interviews that would touch upon topics raised in the exploitation plan presented by consortium member InSilicoTrials (deliverable is pending approval) to ensure alignment with audience expectations and reinforce potential value proposition of the BRAINTEASER project

- "Big news" – this section would highlight breakthrough progress or major events in line with increasing the value proposition of the project. For example, in the latest newsletter, we mentioned the upcoming Open Evaluation Challenge, because it reiterates how work related to data and research is being evaluated and expanded upon thoroughly by individuals external to the project.
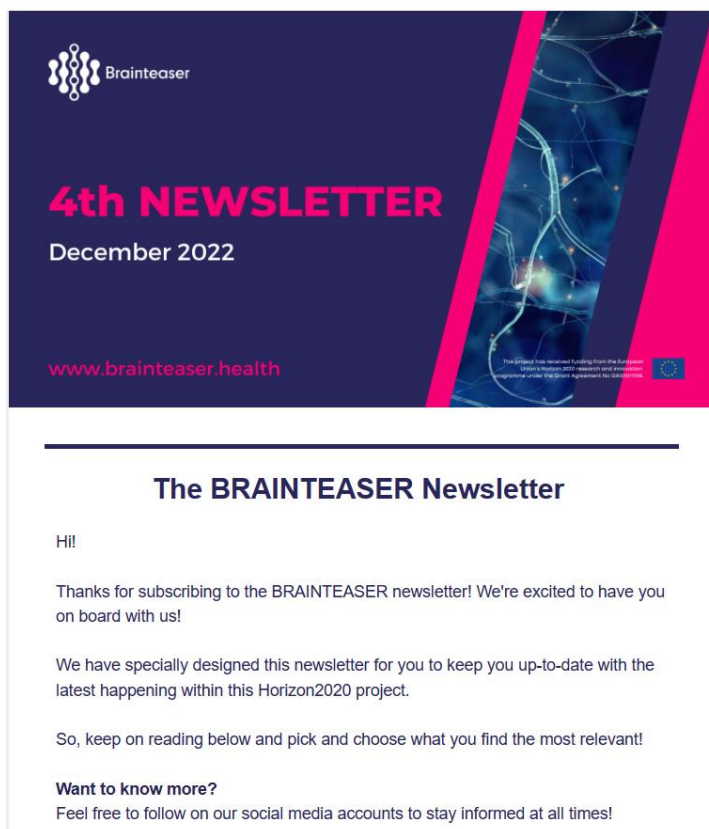
Figure 6. Preview of BRAINTEASER Newsletter (December 2022 issue).

The project's newsletters can be found here.

4.2   Social Media Outreach Analysis

Alongside the creation of the BRAINTEASER website, social media accounts for the project on LinkedIn and Twitter have been created. As proposed in the original DC&SE plan, various hashtags were used to support BRAINTEASER online actions including, but not limited to:

- #BRAINTEASER_EU
- #ALS
- #MS
- #AI
- #ArtificialIntelligence
- #BigData
- #Neuroscience

The KPI set for social media was 1000 followers in total on Twitter and LinkedIn. However, while the KPI has not being achieved just yet, progress have been seen in year 2.

For example, the current figures for Twitter and LinkedIn are 170 and 270, respectively. This means that there are **440 followers** in total, the 44% of the established KPI. **When compared to year 1, an 88.8% increase in the total number of followers has been experienced.**

From a more granular perspective, Twitter experienced a 46.5% increase in the total number of followers while LinkedIn observed a growth of 130.7%. Worth to highlight that

this growth also represented other positive trends in some cases. For instance, on LinkedIn, making a step back to look at the full year, there has been an overall percentage increase in page views among visitors (1,613.2%) and unique visitors (1,484%). In terms of Twitter performance, the engagement rate was 5.6% overall.

These figures are significant given that they underpin how auspicious engagement and an increase in followers could occur simultaneously if the content resonates well. This year, the content included ranged from interviews, structured news pieces and content articles that address stakeholders concerns on a broader level while never forgetting to reference and showcase the BRAINTEASER project.

Nonetheless, with the aim to promote visibility and awareness of BRAINTEASER and increase follower count/engagement, year 3 will see certain actions to be undertaken, including:

1. Continue adhering to the monthly planned calendar that outlined different article ideas for better stakeholder engagement
2. Continue performing quarterly internal report of social media performance, to adapt messaging and approaches
3. Pull article content ideas from the exploitation plan that would address the appropriate audiences and relate how the BRAINTEASER project will support better care for patients and help caregivers and healthcare professionals
4. Define and promote social media campaigns, e.g., the Open Evaluation Challenges (next one in the first quarter 2023) or the Community of Practice (the page is to be live in December 2022-January 2023)

It is worth mentioning that the BRAINTEASER project did well with engagement and increased number of followers due to the support and participation of monthly Dissemination & Communication Virtual meetings with consortium partners. This action will be continued, although with a stronger focus on the content writing pieces. To support this, the communications lead will organise periodic one-to-one sessions with consortium writers to improve their writing and provide tips for more effective communications. As seen earlier in section 4.1.2, consortium partners contributed to communications and dissemination actions through their own social media channels. This, too, will be fostered further to maintain active engagement.

Lastly, while no videos or podcasts have been produced during year 2 to support engagement efforts due to a stronger focus on other approaches, year 3 will aim to use more this kind of communication tool. For example, it is already planned to speak with representatives from the consortium and other relevant stakeholder in the plenary meetings and during the mid-term workshop to be held in February 2023.

4.3 Audio-visual products

During year 2, no videos or podcasts have been produced to support engagement efforts due to a stronger focus on other approaches. Resources and time have been devoted to create and develop image materials/social media campaign/content pieces to deliver more holistic impact.

For example, having a look at the Open Evaluation challenge, a banner images with catchy taglines has been created and an interview with the consortium organiser was wrote up to provide more insights into the event and share links.

Nonetheless, year 3 will aim to present more video interviews. For example, interviews

with representatives from the consortium and other relevant stakeholders in the plenary meetings and mid-term workshop have been already planned.

Ad hoc audio-visual products will be produced to showcase the BRAINTEASER Community of Practices activities and services for stronger awareness and engagement.

4.4 Events

4.4.1 Events arranged by BRAINTEASER partners

In the framework of the Consortium's organised events, worth to mention is:

- The First Exploitation Focus Group held online on the 1st February 2022.
  A series of four Focus Group online workshops is organised with the aim of enlarging the project's vision on users and market needs, obtaining additional requirements and accompanying the BRAINTEASER Consortium towards the most suitable results' sustainability and commercialisation strategy. This first workshop was aimed at offering an overview of the BRAINTEASER project as a whole, spotting a light on the apps and clinical tools that are under development. Advocacy patient groups representatives, clinicians, policy makers, ICT professionals, ethical and standardisation experts have animated the plenary discussion to assess and enhance the BRAINTESER solutions and its exploitation approach. More information about the outcomes of the workshop can be found here. The **second exploitation Focus Group workshop** is under organisation and will be held in early 2023. In this new edition, the panel discussion will be focussing on the ways to maximize the use and value of healthcare data;
- The First Open Evaluation Challenge with its final workshop held in Bologna (IT) on the 5th September 2022 during the CLEF Conference.
  A total of three annual open evaluation challenges are organised by BRAINTEASER to validate the solutions developed by the project with respect to third-party approaches. All the produced experimental data during the challenges are shared of the as open data evaluation, complying with the privacy and confidentiality requirements identified for the various kinds of data mined.
  The first challenge and related lab has been aimed at predicting disease prognosis in ALS. The results from the BRAINTEASER workshop "Intelligent Disease Progression Prediction at CLEF - iDPP@CLEF 2022", namely PPT presentations, scientific papers and the scripts used for computing the performance scores at iDPP@CLEF 2022 can be consulted here.
  The second edition of the challenge, iDPP@CLEF 2023, is coming in Fall 2023 and it will be aimed at discussing analogous AI solutions for MS and the possible impact of the environment. All information about the 2023 challenge, including the important dates, information on the dataset and registration facilities, are already available in a new dedicated section of the project's web site.

In addition, a part from a number of informal meetings organised with groups interested in collaborating/exchange knowledge with the BRAINTEASER initiative, dedicated events have been organised to boost the networking with projects and initiatives relevant to BRAINTASER. Details about these activities are provided in the next section 5.

4.4.2 Conferences and congresses featuring BRAINTEASER

An essential part of the communications, dissemination and stakeholders' engagement strategy is the participation of BRAINTEASER consortium members in national and international conferences to spread BRAINTEASER's value and interact directly with the audiences. The following list reflects the participation of partners in key conferences and events during year 2, as well as the stakeholders reached.

Table 4. Conferences and meetings attended by BRAINTEASER partners in year 2.

Conference name and link	Location	Date	Type of participation in the event	Attending partner/s	Audience
I big data nelle neuroscienze traslazionali	Accademia di Medicina di Torino, Turin (IT)	18/02/22	**Conference and webinar**	UNIPD, UNITO	Mainly clinical audience
European conference on Information Retrieval and Information Access **(ECIR 2022)**	Stavanger (NO)	10-14/04/22	**- Poster presentation:** "BRAINTEASER IDPP@CLEF2022"	UNIPD	Scientific community
IOT Solutions World Congress **(IOTSWC)**	Fira Barcelona, Barcelona (SP)	10-12/05/22	**- Panel discussion:** "A multi-stakeholder approach to successful upscale of IoT in Health"	ECHA	Industry, pharma, scientific community
The Digital Healthcare Show	London, (UK)	18-19/05/22	**Panel discussion:** "Co-creating the digital health solutions with end-users for sustainable adoption-lessons learned"	UPM	Healthcare professionals, industry, pharma, scientific community
Medical Informatics Europe **(MIE 2022)**	Palais des Congrès, Nice Acropolis (FR)	27-30/05/22	**Panel discussion:** "Explainability, Causability, Causality, Reliability: The many facets of "good" explanations in XAI for health"	MNDN-PV	Scientific community

Conference name and link	Location	Date	Type of participation in the event	Attending partner/s	Audience
BRAINTEASER presentation	Smart House Living Lab UPM, Madrid (SP)	02/06/22	**Project Presentation**	UPM	Academic community
ICOST 2022	Paris, France	June 27–30th 2022	**Paper presentation:** "Novel Interactive BRAINTEASER Tools for Amyotrophic Lateral Sclerosis (ALS) and Multiple Sclerosis (MS) Management"	BELIT	Government, health & social care providers, companies and start-ups, researchers, insurances, patients' groups, investment community
ICCE-Berlin 2022	Berlin, (D)	05/09/22	**Paper presentation:** "Design and Optimization of REST Services for Performance and Scalability in Provision of Big Environmental Data to Exploratory Analytics of their Effects on Progression of ALS and MS"	BELIT	Industry, researchers, consumers
30th SoftCOM 2022	Split, Croatia	September 22-24th 2022	**Demo and poster:** "Novel Interactive BRAINTEASER Tools for ALS and MS Management v1.2"	BELIT	Industry, researchers
4th Digital Health Society Summit **(DHSS2022)**	Virtual	04-05/10/22	**Panel discussion:** "Data & Digital services to support the recovery of health systems	UNIPD, MNDN-PV and ECHAlliance (panels moderator)	Government, health & social care providers, companies and start-ups, researchers, insurances, patients' groups

Conference name and link	Location	Date	Type of participation in the event	Attending partner/s	Audience
			across the globe" **Panel discussion:** "Health data for smarter, more resilient and sustainable cities" **Virtual booth**		and citizens, investment community
IEEE BHI-BSN Conference	Ioannina, (GR)	27/09/22	**Workshop:** Gender in STI. BRAINTEASER as an example of diversity, equity and inclusion	UPM	Scientists and academic community
Conference and Labs of the Evaluation Forum **(CLEF 2022)**	Unversità degli Studi di Bologna, Bologna (IT)	05-08/09/22	**Conference and lab**	UNIPV, UNITO, FC.ID, iMM	Scientists and industry
The Green Brain: un "Caffe Scientifico" per comprendere l'impatto di alimenti e inquinanti ambientali sulla salute del nostro cervello	Casa del Quartiere di San Salvario, Torino (IT)	01/10/22	**Poster presentation and study demonstration**	UNITO	General pubic
Brain Innovation Days	Brussels, (BE)	11-12/10/22	**Demo session**	BELIT and EBC	Start-ups, researchers, patients, patient representatives, policymakers, industry, healthcare professionals, investors
DEI retreat	Università degli Studi di Padova, Padova (IT)	11/11/22	Overview of the research activity carried on by young researchers at the Dept. of Information	UNIPD	Scientists

Conference name and link	Location	Date	Type of participation in the event	Attending partner/s	Audience
			Engineering, UNIPD		
DEI talks	Università degli Studi di Padova, Padova (IT)	23/11/22	Overview of the research activity carried on by young researchers at the Dept. of Information Engineering, UNIPD	UNIPD	Scientists

4.5 Scientific dissemination

Scientific publications are developed to share the research experiences and evidence about the potential of the BRAINTEASER technology and methodological approach amongst the research and innovators communities. The BRAINTEASER consortium will publish position papers, review articles and research papers related to the scientific topic and findings in this domain, in peer review journals and "grey" (non-indexed) literature. The list of scientific publications in 2022 is included in the list below.

Table 5. BRAINTEASER Scientific publications during year 2.

Title and identifier	Partner	Authors	Title of periodical or series	Publisher	Year of publication	Open access
Deep learning methods to predict amyotrophic lateral sclerosis disease progression	UNITO, UNIPD	Corrado Pancotti, Giovanni Birolo, Cesare Rollo, Tiziana Sanavia, Barbara Di Camillo, Umberto Manera, Adriano Chiò & Piero Fariselli	Scientific Reports	Springer Nature	2022	yes
Exposure to electromagnetic fields does not modify neither the age of onset nor the disease progression in ALS patients	UNITO	Vasta R, Callegaro S, Grassano M, Canosa A, Cabras S, Di Pede F, Matteoni E, De Mattei F, Casale F, Salamone P, Mazzini L, De Marchi F, Moglia C, Calvo A, Chiò A, Manera U	Amyotroph Lateral Scler Frontotemporal Degener	Taylor and Francis	2022	no
Exploring the phenotype of Italian patients with ALS with intermediate ATXN2 polyQ repeats	UNITO	Chio A, Moglia C, Canosa A, Manera U, Grassano M, Vasta R, Palumbo F, Gallone S, Brunetti M, Barberis M, De Marchi F, Dalgard C, Chia R, Mora G, Iazzolino B, Peotta L, Traynor B, Corrado L,	J Neurol Neurosurg Psychiatry	BMJ Group	2022	yes

		D'Alfonso S, Mazzini L, Calvo A				
Systematic evaluation of genetic mutations in ALS: a population-based study	UNITO	Grassano M, Calvo A, Moglia C, Sbaiz L, Brunetti M, Barberis M, Casale F, Manera U, Vasta R, Canosa A, D'Alfonso S, Corrado L, Mazzini L, Dalgard C, Karra R, Chia R, Traynor B, Chiò A	J Neurol Neurosurg Psychiatry	BMJ Group	2022	yes
Social cognition deficits in amyotrophic lateral sclerosis: A pilot cross-sectional population-based study	UNITO	Palumbo F, Iazzolino B, Peotta L, Canosa A, Manera U, Grassano M, Casale F, Pellegrino G, Rizzone MG, Vasta R, Moglia C, Chiò A, Calvo A	Eur J Neurol	Wiley-Blackwell	2022	yes
Respiratory onset in amyotrophic lateral sclerosis: clinical features and spreading pattern	iMM	Susana Pinto, Marta Gromicho, Miguel Oliveira Oliveira Santos, Michael Swash & Mamede De Carvalho	Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration	Taylor & Francis	2022	no
Motor neuron disease in three asymptomatic pVal50Met TTR gene carriers	iMM	Santos Silva C, Gromicho M, Oliveira Santos M,	Neurological Sciences	Springer Nature	2022	yes

		Pinto S, Swash M, de Carvalho				
[Mild dysphagia does not influence survival in ventilated amyotrophic lateral sclerosis patients](#)	iMM	Miguel Oliveira Santos, Marta Gromicho, Susana Pinto, Michael Swash, Mamede de Carvalho	Journal of the Neurological Sciences	Elsevier	2022	no
[Learning prognostic models using a mixture of biclustering and triclustering: Predicting the need for non-invasive ventilation in Amyotrophic Lateral Sclerosis](#)	FC.ID, iMM	Diogo F. Soares, Rui Henriques, Marta Gromicho, Mamede de Carvalho, Sara C. Madeira	Journal of Biomedical Informatics	Elsevier	2022	yes

In addition to the scientific publications, as outlined in the table below, a number of academic papers have published in the context of academic conferences and workshops.

Table 6. Conferences publications in year 2

Author(s)	Title	Conference	Date	Location	Published in	Link to Paper
Sergio Gonzalez-Martinez, María Fernanda Cabrera-Umpiérrez, Manuel Ottaviano, Vladimir Urošević, Nikola Vojičić, Stefan Spasojević & Ognjen Milićević	Novel Interactive BRAINTEASER Tools for Amyotrophic Lateral Sclerosis (ALS) and Multiple Sclerosis (MS) Management	ICOST	27-30 June 2022	Paris	Springer	[here](#)
V. Urošević, A. Dagliati, M. Ottaviano, N. Vojičić, C. Larizza, D. Pala	Design and Optimization of REST Services for Performance and Scalability in Provision of Big	ICCE Berlin	September 2-6th 2022	Berlin, Germany	IEEE Explore	[here](#)

	Environmental Data to Exploratory Analytics of their Effects on Progression of ALS and MS					
Buonocore T.M.;Nicora, Giovanna;Dagliati, Arianna;Parimbelli, Enea	Evaluation of XAI on ALS 6-months mortality prediction	CLEF 2022	September 2022	Bologna	CEUR Workshop Proceedings	here
Alessandro Guazzo, Isotta Trescato, Enrico Longato, Enidia Hazizaj, Dennis Dosso, Guglielmo Faggioli, Giorgio Maria Di Nunzio, Gianmaria Silvello, Martina Vettoretti, Erica Tavazzi, Chiara Roversi, Piero Fariselli, Sara C. Madeira, Mamede de Carvalho, Marta Gromicho, Adriano Chiò, Umberto Manera, Arianna Dagliati, Giovanni Birolo, Helena Aidos, Barbara Di Camillo and Nicola Ferro	Overview of iDPP@CLEF 2022: The Intelligent Disease Progression Prediction Challenge	CLEF 2022	September 2022	Bologna, Italy	CEUR Workshop Proceedings, Volume 3180, Pages 1130 - 1210, 2022 - 2022 Conference and Labs of the Evaluation Forum, CLEF 2022	here
Alessandro Guazzo, Isotta Trescato, Enrico Longato, Enidia Hazizaj, Dennis Dosso, Guglielmo Faggioli, Giorgio Maria Di Nunzio, Gianmaria Silvello, Martina Vettoretti, Erica Tavazzi, Chiara Roversi, Piero Fariselli, Sara C. Madeira, Mamede de Carvalho,	Intelligent Disease Progression Prediction: Overview of iDPP@CLEF 2022	CLEF 2022	September 2022	Bologna, Italy	Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics),	here

Marta Gromicho, Adriano Chio', Umberto Manera, Arianna Dagliati, Giovanni Birolo, Helena Aidos, Barbara Di Camillo, and Nicola Ferro						Volume 13390 LNCS, Pages 395 - 422, 2022 - 13th International Conference of the Cross-Language Evaluation Forum for European Languages, CLEF 2022	
Pancotti Corrado, Birolo Giovanni, Sanavia Tiziana, Rollo Cesare, Fariselli Piero	Multi-Event Survival Prediction for Amyotrophic Lateral Sclerosis	CLEF 2022	September 2022	Bologna	CEUR WORKSHOP PROCEEDINGS	here
Ruben Branco, Diogo F. Soares, Andreia S. Martins, Eleonora Auletta, Eduardo N. Castanho, Susana Nunes, Filipa Serrano, Rita T. Sousa, Catia Pesquita, Sara C. Madeira and Helena Aidos	Hierarchical Modelling for ALS Prognosis: Predicting the Progression Towards Critical Events	CLEF 2022	September 2022	Bologna	CEUR Workshop Proceedings	here
Susana Nunes, Rita T. Sousa, Filipa Serrano, Ruben Branco, Diogo F. Soares, Andreia S. Martins, Eleonora Auletta, Eduardo N. Castanho, Sara C. Madeira, Helena Aidos and Catia Pesquita	Explaining Artificial Intelligence Predictions of Disease Progression with Semantic Similarity	CLEF 2022	September 2022	Bologna	CEUR Workshop Proceedings	here

V. Urošević, N. Vojičić, S. Gonzalez-Martinez, M. F. Cabrera-Umpiérrez, O. Milićević	Novel Interactive BRAINTEASER Tools for ALS and MS Management v1.2 (Professional Demo & Poster)	30th SoftCOM 2022	September 22-24th 2022	Split, Croatia	Conference proceedings	here
Manera U, Callegaro S, Vasta R, Grassano M, Canosa A, Cabras S, Di Pede F, De Marchi F, Mazzini L, Moglia C, Calvo A, Chiò A	EPI-14 The influence of agricultural areas on ALS risk and phenotype: a population-based study	ALS-MND Virtual 2022	6-10/12/2022	Virtual	33rd International Symposium on ALS/MND	here
Umberto Manera, Maurizio Grassano, Maria Claudia Torrieri, Antonio Canosa, Rosario Vasta, Francesca Palumbo, Paolo Cugnasco, Enrico Matteoni, Sara Cabras, Francesca Di Pede, Filippo De Mattei, Cristina Moglia, Andrea Calvo, Adriano Chiò	The role of serum chloride as a marker of respiratory failure in Amyotrophic Lateral Sclerosis	52° CONGRESSO SIN MILANO 2022	4th December 2022	Milan	Sin	here

4.6 Traditional media coverage

During the current year, no information about BRAINTEASER have been published on traditional media.

The main reason for this is related to the fact that the 2022 press release meant to be distributed for publication on traditional channels has been finalised at the time of writing of this document.

As it is known, newsletters are news that are sent to inform the public about something relevant or of significant importance and their purpose is to earn positive media coverage. To have a successful coverage, press releases need to be relevant to journalists and the target audience, and they need to be distributed to the right outlets and individual at the right moment.

Following this reasoning, press releases should be prepared and shared once key facts should be conveyed. As such, the time is now mature to promote the achievements made by the project in relation to the web-based dashboard for health professionals and mobile-based app for patients and caregivers. Key updates about the two novel tools have been included in the "***EU Digital Health Project Develops Novel Tools to Help Patients with MS and ALS***" press release.

The second press release, already under preparation, is addressing "EU Digital Health Project Develops Novel Tools to Help Patients with MS and ALS". This will be finalised by the end of the year and shared with project's members for further distribution.

Finally, the announcement of the BRAINTEASER midterm workshop will be promoted using this type of communication tool. This official statement will be designed with a clear news angle, and the information will be expressed simply and concisely to also attract the general public to attend the event.

5 COMMUNICATION AND DISSEMINATION SYNERGIES WITH OTHER PROJECTS AND INITIATIVES

In the first year of the project, the consortium focused on other EU funded projects with similar strategic objectives. Among eight identified EU projects (from first year), four responded positively to the invitation (see first 4 projects of table 7) for a meeting in January 2022.

This liaison meeting discussed the technologies developed by RADAR-AD and how they could be used in other brain conditions in particular those addressed by Brainteaser (Multiple Sclerosis (MS) and Amyotrophic Lateral Sclerosis (ALS)).

During this meeting the following common challenges were discussed.

- Topic 1: sharing collected data that would give the projects access to trustworthy databanks and algorithms

- Topic 2: exchange on the solutions developed by RADAR-AD to collect data & explore the possibility to transfer the solution developed in the field of Alzheimer disease to the fields of MS and ALS

- Topic 3: Jointly address regulatory issues and deal with regulatory agencies

Over the year, the network enlarged, and other related projects (private/EU) were also added (see table below for full overview of involved EU and private funded projects).

Table 7. Established liaisons with relevant projects and initiatives during year.

Related projects involved in this task
1) **Radar-AD** - (EU) Remote Assessment of Disease and Relapse – Alzheimer's Disease
2) **Lethe** (λήθη) – (EU) A personalized prediction and intervention model for early detection and reduction of risk factors causing dementia, based on AI and distributed Machine Learning
3) **AI-MIND**- (EU) Intelligent digital tools for screening of brain connectivity and dementia risk estimation in people affected by mild cognitive impairment
4) **WARIFA** - (EU) Watching the risk factors: Artificial intelligence and the prevention of chronic conditions
5) **ORIGENT DATA SCIENCES** - Origent is dedicated to managing and reducing drug development risks through better foresight. We are experts in the development and application of predictive models that are designed to anticipate and predict the dynamics of individual patients.
6) **NEURODEGENERATIVE DISEASE ATLAS**- Neurodegenerative Disease Atlas (NDAtlas) is a database for the collective information of the proteins involved in NDs, the related PPIs, and interactive visualizations.
7) **ROCK-ALS TRIALS** - The ROCK-ALS trial is a multicenter, interventional, randomized, controlled phase IIa trial assessing the safety, tolerability and efficacy of Fasudil in patients with amyotrophic lateral sclerosis
8) **MAXOMOD** - Multi-omic analysis of axono-synaptic degeneration in motoneuron disease

9) **PREMODI-ALS** - (EU) The premodiALS consortium is an initiative funded within the 2021 EU Joint Programme - Neurodegenerative Disease Research (JPND) call for proposals: "Linking pre-diagnosis disturbances of physiological systems to Neurodegenerative Diseases"

Regarding the collection of coordination requirements, individual liaison meetings were held between March and April 2022 with the newly added projects (project 5 to 9 in table 7) to get to know the projects, to get them acquainted with the Brainteaser project and to identify what their coordination needs are. They were all very interested in the topic of regulatory challenges (topic 3).

On June 21st another liaison meeting was held with all 9 related projects on the topic of regulatory challenges. In this meeting each project shared its objectives as well as the specific regulatory challenges and actions taken so far. At the end of the meeting, we shortly discussed some common challenges and findings.

As we received a lot of input during this meeting with a wide variety of regulatory challenges, the BRAINTEASER consortium is currently discussing the 3 main regulatory challenges to further focus on.

Therefore, a mail was sent to all BRAINTEASER consortium partners listing all the regulatory challenges mentioned during that meeting (see below list) in order to indicate their top 3 priorities.

Both subtask 1 (mapping of initiatives) and 2 (collection of coordination needs) have been finished but might be updated in the process as new related initiatives might be brought in and additional coordination needs might come up (e.g., in relationship to the CoP activities).

In relation to the task for developing a programme of coordination activities, as the topic (regulatory challenges) is defined, the plan is to have 3 coordination meetings around the topic of regulatory challenges and data sharing. The first coordination meeting will be a stakeholder meeting where external experts (e.g., from European Medicines Agency) will be present, the second one will focus on the output (recommendations) and the third one will focus on the communication and dissemination of these recommendations. The exact planning of these coordination meetings will be discussed in 2023 in order to align the activities with the Community of Practice.

Finally, as mentioned, in 2023 the first coordination meetings will take place to work on how to tackle these regulatory challenges and to come up with some recommendations and solutions together with Brainteaser, the related projects and external experts. In this endeavor we will make sure to make the relevant links with the Community of Practice and general dissemination and communication activities.

6 CHALLENGES, RISKS, MITIGATION PLAN AND LESSONS LEARNED

6.1 Challenges experienced

This report serves as a tool to identify the achievements but also barriers that influence maximal impact and should be addressed in the upcoming months. Thus, the following challenges are listed as learning points that will be taken forward by the communications and dissemination team to improve BRAINTEASER visibility, outreach, stakeholder engagement and ultimately, sustainability.

The first challenge was related to the creation and implementation of the content ideation strategy. This challenge arose because the communications team does not know the intricate details of the project progress and outputs and where/to which specific area individual project partners contribute. However, to mitigate this issue, the monthly DC&SE meetings were used to open the communications channels and assign tasks. When possible, one-to-one meetings to gain more insight were held. Similarly, content creation is a skill that must be refined and not all partners know how to write content that will resonate effectively with stakeholders' needs or wants. To address this, a presentation was conceived that highlights mistakes made, lessons learned, tips gained. This document was shared with partners to use, alongside other resources to improve writing skills and strengthen their skills as contributors to the communications process.

The other, more internal challenge has been maintaining equal participation of all consortium members in DC&SE efforts, including reporting. Although the great majority of partners dynamically participated to the project's DC&SE activities, for example providing news for the project's web site and supporting the dissemination by using social media channels, few others have been less active. This might be due to the fact that these members were too busy with their daily activities, especially the clinical partners, and didn't have so much time to be dedicated to this action. A difference that was observed between this year and last was improved project management in terms of providing details of actions needed further in advance. This has allowed partners to better plan their schedules and contribute more effectively to the communications and dissemination activities.

6.2 Next steps

Next steps for the BRAINTEASER project will first and foremost aim to uphold and reinforce the Communications-Dissemination-Sustainability triangle mentioned earlier in this report. This means that BRAINTEASER will integrate the recommendations and even the risk and mitigation plan into the work and processes of the project. These changes will occur gradually, beginning with a comprehensive overview of the main findings of this report.

It will be important to continue the Dissemination & Communication monthly meetings to ensure alignment with all the partners' representatives and clarify any doubts that might prevent the consortium from implementing the recommendations effectively and efficiently.

Year 3 of the project is interesting as BRAINTEASER will be making great strides in outputs. It will be important that more content (from campaigns and article pieces to video interviews) is created in support of the project's exploitation plan (currently finalised in its first version) and to strengthen the stakeholders' engagement.

If we all do our part, we will ensure the positive trends in growth across the different communications channels continue rising.

7   CONCLUSIONS

BRAINTESER project started during the times of an unprecedented crisis that might have influenced its internal communications and external outreach. Despite this, it has managed to ensure smooth communications amongst partners and promote grand visibility on the busy international stage of research and innovation initiatives. Understandably, for a European digital health project of this complexity, there were also some challenges that this report described for purposes related to transparency and points of focus of improvement for the consortium. The project will build upon these learned experiences to guide the activities during the year 3 of the project.

BRAINTEASER has continued embarking on the promising path it first began two years ago. We have seen that there is visible growth across many dimensions of the project. We also anticipate that such growth will not stop, especially as more outputs come to light. That said, it will be vital that communications and dissemination embrace all opportunities for impact so the project enjoys the highest probability of successful uptake after its completion.