



BD2Decide

Big Data and models for personalized Head and Neck Cancer Decision support

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Addressees of this document

This document is addressed to the BD2Decide Consortium. It describes the plan for dissemination and communication that should be enacted from M19 until M30. It should be distributed as a guidance to all BD2Decide team members involved in the project execution and, in particular, in the implementation of communication and dissemination actions.

This document will be delivered to the European Commission.



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***Abbreviations and definitions***

CA	Consortium Agreement
DoA	Description of Action, Technical Annex I to the Grant Agreement
EC	European Commission
EU	European Union
GA	Grant Agreement



Executive summary

[Note: this section has been **modified** wrt Executive Summary in D9.2]

This document represents the second release of the previous deliverable D9.2 *Communication plan and strategy*, that has been delivered last year, at M6 (June 2016).

With respect to D9.2, this document confirms the same successful communication strategy presented therein, to be enacted by BD2Decide in order to effectively reach all the actors categories targeted by the Project. In fact, several elements have not changed from D9.2 and are presented unmodified in this release, namely:

- the ultimate objective of the communication and dissemination activity, which is to prepare the exploitation phase of the Project, where results will be used to pursue clinical, commercial and scientific interests expressed by either the Consortium, the European healthcare system and industry, and the European citizens.
- the addressed actors' categories, such as
 - clinical, healthcare and industry representatives, potentially interested in collaborating with the Consortium and/or individual Partners to invest, commercialize, resell or build new products/services on relevant Project results.
 - scientific community, that can benefit from the European scale research collaboration enacted by the BD2Decide endeavour
 - EU citizens, and in particular HNC patients, who are the ultimate beneficiaries of the action, and need to be informed about the impact on their quality of life brought in by the Project
- the operational structure for the communication process, which is based on a specific workflow for the identification of pertinent communication opportunities, their mapping to appropriate target groups and communication channels, and the formulation and publishing of respective communication messages that best fit the intended purpose

In addition to the above, a new section has been included in order to report about the results of the communication activities conducted by the Consortium and individual Partners in the (just ended) period M1-M18, in terms of:

- publications of scientific results as articles in journals, presentations at conferences and other activities, such as publication of posters
- communication actions, such as organization of specific workshops, participation to exhibitions, delivery of press releases, etc.
- online communication actions, conducted through the Project website or through individual Partners' websites, as well as through the Project's social media channels

The above results have been also compared – in terms of actual audience reached – with the targets planned for in D9.2, revealing that such targets have all been achieved and, in several cases even



surpassed. This is evidence that the strategy outlined in D9.2 is effective, and this is the reason why it proposed substantially unmodified in this release.

As in D9.2, this new release also reports:

- relevant procedures are put in place in order to ensure that the communication activities are carried out in conformance with provisions of the GA and the CA, and that the interests of the Consortium Partners and of the EC are dutifully considered
- targets to assess the outcome of the communication activities for the next periods (M19-M30 and M31-M40)

***Note to the reader:** since, as mentioned, this deliverable is a revision of D9.2, several parts of this document have not changed with respect to D9.2, while others have been altered at different degrees. In order to simplify browsing for readers who are already familiar with D9.2, each section in the document is clearly marked with its status with respect to D9.2, as follows:*

- *Unmodified: essentially, the section has not been modified with respect to D9.2*
- *Adapted: the section has been slightly modified with respect to D9.2 in order to adapt existing content to the new period*
- *Modified: the section has been substantially modified with respect to D9.2*
- *New: the section was not present in D9.2*



1 OBJECTIVES OF THE COMMUNICATION PLAN

[Note: this section is **unmodified** wrt Section 1 in D9.2]

According to the GA, the BD2Decide Consortium has a contractual obligation to promote the Project and its results by providing targeted information to multiple interested audiences, including the media and the public, in a strategic and effective manner (Art. 38 of GA [1]).

In fact, communication is a crucial element to **prepare the exploitation phase** of the Project, where results will be used by Partners to either:

- Pursue clinical interests, through the application of the BD2Decide DSS platform to clinical practice, in order to improve the treatment of cancer – initially for HNC, but possibly extending to other areas where model-based prediction, deployment of big data techniques, data analytics and data visualization, are particularly relevant
- Pursue commercial interests, with the aim of bringing results (artefacts or knowledge) on the market, in order to provide the EU industry and citizens with innovative products and services in the area of decision support for the diagnosis and treatment of cancer
- Pursue scientific interests, with the aim of sharing knowledge and research results with the broader scientific community, and to allow other institutions and researchers to build upon the BD2Decide endeavour to further investigate the role of big data-based models in cancer research

From the above premises, the following general communication objectives are derived:

- To make BD2Decide results known to clinical and healthcare actors that may directly or indirectly benefit from it. This includes specialists involved decision making for HNC, for cancer treatment in general or for other healthcare areas that can take advantage from a coherent use of large quantities of heterogeneous data for predictive and therapeutic interventions.
- To make BD2Decide's exploitable components known to industry actors that are potentially interested in collaborating with the Consortium and/or individual Partners in order to invest, commercialize, resell or build new systems on top of the BD2Decide prototypes, tools and methods
- Illustrate to EU citizens how the results of the BD2Decide endeavour will have a strong and direct impact on their quality of life, by allowing earlier detection of cancer risks and better treatment decisions, including a more constructive and mutually beneficial patient-doctor relationship
- Show to actors in the scientific community and in the industry how the European collaboration enacted by BD2Decide allows to achieve objectives that would have been impossible to achieve at a national or local scale



1.1 TARGETED GROUPS

In order to effectively achieve the objectives presented above, it is important to precisely identify which are the actors that need to be targeted by the BD2Decide communication effort.

In fact, a clear-cut identification of relevant target groups is a crucial prerequisite to formulate accurate communication messages and to select the most appropriate communication channels to vehiculate them.

This work has already been developed by the Consortium at the proposal writing stage and the resulting list of the targeted groups is included in the DoA, Part B, Subsection 2.2.2.

The list is reported in the following table, for reader's convenience.

Table 1. Target groups for communication actions

Targeted Group	Description
Commercial organizations	To be targeted for commercial exploitation. This target group is very large, but can be effectively reached through the joint forces of the Consortium. In particular, the Consortium will set out to tap into the European hospital information systems market (primary target), diagnostic imaging software market and the big data analytics market
Healthcare and clinical organizations	Appropriate demonstration activities will target healthcare and clinical organization, in order to show the effectiveness of the BD2Decide approach in improving clinical decision making processes, improving efficiency and containing costs of diagnosis, prognosis and treatment, improving patients' quality of life.
Research organizations	To be targeted for scientific dissemination. Scientific dissemination will be conducted toward research and academic organizations, scientific journals, Committees, Internet Fora and other working groups in the fields related to the BD2Decide work. This target group can be effectively reached by the Consortium's prestigious research and academic organizations.
Policy-makers and funders	Given the importance of public healthcare systems in BD2Decide exploitation, the influence and connections of the Consortium's academic and industrial players will be enacted in order to guarantee that this target group can be effectively reached and shown the advantages and impacts of the project.



Targeted Group	Description
Patients Associations and Cancer Research NGOs	All of the project's dissemination activities will target this group, in order to contribute to raise awareness, and to foster knowledge sharing and participation to the project assessment. In this sense the use of social media and video-animations that clarify the project concepts and the innovations possible in HNC care is a key communication means. To achieve wider visibility, participation to cancer-related research campaigns, publications on cancer research NGOs press (e.g. AIRC in Italy) will be pursued. The presence in the Consortium of internationally recognized oncologists, biomolecular researchers, surgeons and radio-therapy researchers are important facilitators to these actions
General public	All of the project's dissemination activities will target this group, in order to contribute to raise awareness, particularly as concerns the improvement of quality of life of HNC patients, which is especially threatened, compared to other kinds of diseases.



2 COMMUNICATION STRATEGY

[Note: this section has been **adapted** wrt Section 2 in D9.2]

In order to achieve the objectives outlined in Section 1 and to effectively communicate relevant results to the target groups mentioned there, the Project will enact an appropriately crafted strategy, based on the three broad chronological phases:

- **Awareness raising phase**, from Month 1 to Month 18: during this phase – which was planned for in deliverable *D9.2 Communications plan and strategy*, first release – the major objective has been to make the Project known to its intended targeted categories. Since, during this period, there has not yet been full availability of relevant Project outcomes (in terms of prototype tools, models, methods, etc.) that could be presented to ultimate users, the effort of the Consortium has been concentrated in “spreading the news” and disseminate information about the BD2Decide endeavor, based on the knowledge assets produced by the specification phase. This includes, for instance, illustrating the overall project rationale and the general expected benefits, for each different targeted group. More details on performed activities are reported in Section 3, below.
- **Presentation phase**, from Month 18 to Month 30: during this phase – which is planned for in this deliverable – the first project results, available at Milestone 3 (Month 18), will be leveraged in order to demonstrate the specific advantages that BD2Decide components will bring to the clinical and research practice, resolving specific problems, improving specific processes and ultimately benefiting patients’ QoL.
- **Pre-exploitation phase**, from Month 30 to Month 40: during this phase – which is planned for in *D9.4 Communications plan and strategy, final release* – the emphasis will be on the preparation of the clinical, scientific and commercial exploitation phase of the Project. With the market requirements ready at Milestone 4 (Month 24), the communication messages will be more focused toward system usage and will start to gradually morph into *marketing messages*.

From an implementation point of view, all the above phases will be based on a continuous quest to identify relevant prospects for effective communication of project achievements, and to exploit them by conducting the following coordinated steps:

- Identification of relevant events – either generated within the Project or by external actors working in areas pertinent to the Project – that can create **communication opportunities**, for conceiving and conveying relevant messages, appropriate for one or more of the target categories listed in subsection 1.1. These events may be, for instance: the issue of a public deliverable, the experimentation of a Project artefact at a pilot site, the generation of new knowledge that can be the subject for a scientific publication, or the emergence of external outputs (e.g. tools, scientific findings, etc.) that demonstrate synergy and/or complementarity to the BD2Decide endeavor and help to better illustrate its ultimate added value in the current context.

- Assessment of the specific **target groups** that are potentially interested in relevant communication messages, generated by specific events
- Identification of relevant **channels** to vehiculate BD2Decide communication messages, such as social networks, newsletters, mass media, scientific conferences, trade fairs, etc. Each channel has specific characteristics that makes it particularly suitable for certain target groups and messages types
- Identification of the most appropriate **format** for each communication message. This activity also depends on the nature of the message, the targeted categories that can benefit from it, and the selected communication channels
- Production and publication of the message (e.g. writing a micro-post or post article, writing a scientific paper, organizing a restricted workshop, etc.), possibly after the activation of an appropriate approval cycle

The conduction of the above activities entails the enactment of the workflow illustrated in Figure 1.

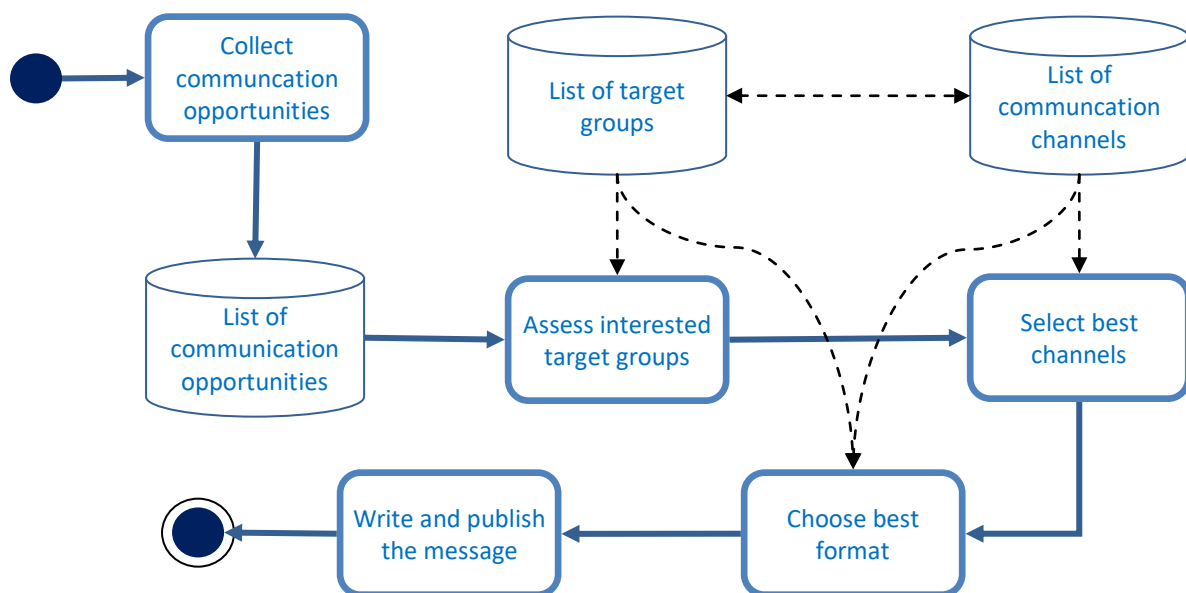


Figure 1. Communication strategy workflow

The workflow components illustrated in the Figure are described in details in the following subsections.

2.1 COLLECTION OF COMMUNICATION OPPORTUNITIES

The collection of communication opportunities is the “starting point” of the BD2Decide communication activity.



It aims at producing and maintaining a chronologically ordered *list of communication opportunities*, that registers relevant prospects for creating and publishing messages aimed at making BD2Decide and its results known to the intended target groups.

In its current status, at the time of writing, the list of communication opportunities is reported in Annex A. However, the list is an evolving document, as it will be continuously updated each time new opportunities emerge.

When inserting a new prospective communication action in the list, the fields illustrated in Table 2 have to be filled.

Table 2. Fields for the list of communication opportunities

Field	Content
Time	Estimated time at which the opportunity will arise
Event	Brief description of the event that generates the opportunity
Potential message	Brief description of the potential message that can be communicated
Target group(s)	Tentative indication of the addressable target groups
Possible channels	Tentative indication of the communication channels to be used

The main purpose of the list is to record every possible interesting opportunity and to put it in context by comparing it with the others, both from a temporal and from a content viewpoint.

It will be the reference point to decide what and when to communicate in BD2Decide, along the full Project duration.

Responsibility and timing

The collection of new opportunities is carried out under the responsibility of the whole Consortium. In fact, opportunities may be generated:

- At Consortium level, during the operations of the BD2Decide Project and the progress of the work-plan (e.g. issuing a public deliverable)
- At individual Partner level, during the course of the typical institutional or commercial activities of the Partner (e.g. publication of a local press release)

More information on this is provided in Section 4.

This action is carried out continuously, as events that may be linked to relevant communication opportunities occur.



MME, Work-package Leader of *WP9 Communication & Exploitation* will ensure the necessary coordination and management of the list.

2.2 ASSESSMENT OF INTERESTED TARGET GROUPS

The target groups to be addressed by BD2Decide communication have already been defined in the DoA and are replicated for convenience in subsection 1.1 of this document.

Each new communication opportunity is assessed against its value and attractiveness for each different target group and the resulting decision on which ones to address is recorded in the list illustrated in subsection 2.1 above.

Responsibility and timing

This action is carried out under the responsibility of MME, Work-package Leader of *WP9 Communication & Exploitation*.

It will be conducted each time a new entry is added to the list of communication opportunities.

2.3 SELECTION OF COMMUNICATION CHANNELS

The communication channels that will be used by BD2Decide are illustrated in Table 3 below.

In the Table, four different channels categories are identified:

- **Inbound (pull) channels:** these are the channels most suited for inbound communication, i.e. where the main initiator of the communication is the targeted audience, who spontaneously decide to accede the channel and consume its content. The most common examples in this category are micro-post based social media. BD2Decide will initially address three of them: Twitter, Facebook and LinkedIn. The creation of a YouTube channel will be considered in the future, depending on the importance that video content will assume in the BD2Decide dissemination. In addition to social media, this category also includes a Project Blog, hosted on the Project Website, that will present more in-depth posts and articles (<http://www.bd2decide.eu/content/project-blog>).
- **Outbound (push) channels:** these are more traditional channels, where the main initiator of the communication is the Project. It includes conventional press releases, the Project Newsletter, and the organization of Project workshops, possibly in cooperation with other actors.
- **Sectorial channels:** these channels have a more restricted and specific target, with respect to the previous two categories. It includes channels managed by the EU (and made available to H2020 Projects, among others), Scientific publications, and Trade fairs.
- **Focused channels:** these channels will be used for communication actions which are very close to dissemination and exploitation of Project results, either scientifically or commercially. It includes participation to Clustering activities and the organization of restricted presentation meetings.

**Table 3. BD2Decide communication channels**

Category	Channel	Description
Inbound (pull)	Twitter	A relatively “lean” channel, suitable to inform all target groups about what is going in general on in BD2Decide. Published micro-posts will possibly contain a link to more in-depth content, issued on other channels (such as the Project Blog) for interested readers.
	Facebook	<p>Given its wide appeal on a large number of users, this channel will be mainly exploited to reach the General Public as well as Patients Associations and Cancer Research NGOs.</p> <p>The possibility to add images and videos allows to convey more intensive and expressive messages.</p>
	LinkedIn	This channel addresses a more professionally oriented public, particularly through its Groups feature, which represent well-established professional Fora, that cover a wide variety of topics, including several of interest to BD2Decide (e.g. of clinical, scientific or commercial nature). The opportunity to open new Groups, specific to BD2Decide, will be assessed during the project, in case areas of interest to the Project result insufficiently covered by existing Groups.
	Project Blog	<p>The main characteristic of the Project Blog, with respect to the other channels in this category, is the possibility to convey much richer message formats, compared with what possible with micro-posting. As previously mentioned, the Project Blog can also be the destination of URLs from micro-posts published on other channels, aimed at providing more elaborated content for interested readers.</p> <p>As such, the Project Blog is naturally multi-target: each single post can be specifically targeted toward well-defined subset of actors. A tag/category hierarchy will help readers to find Posts of interest to them.</p>



Category	Channel	Description
Outbound (push)	Press releases	Press releases will be published by either the Consortium (mostly for EU- or World-level communication) or by individual Partners (mostly for local communication). Press releases can address several target groups, depending on the media to which they are ultimately sent.
	Newsletter	<p>A Project Newsletter will be published periodically, collecting in one place major Project achievements in the considered period.</p> <p>It is the ideal channel to represent a comprehensive reference information for BD2Decide, that can be used to efficiently communicate the status of the Project, particularly to professional actors and policy makers.</p>
	Workshops	<p>Workshops will be organized to present Project results and ideas, exploiting the “in presence” availability of BD2Decide experts, willing to interact with the audience.</p> <p>For instance, this channel can be used to target:</p> <ul style="list-style-type: none">• The General public, Patients Associations and Cancer Research NGOs – e.g. workshops organized in cooperation with associations like AIRC in Italy, who promote cancer research toward the public• Healthcare, clinical and research organizations, to present specific scientific ideas and methods explored and furthered by the Project• Commercial organizations, to present BD2Decide components that may be industrialized and marketed after the end of the Project



Category	Channel	Description
Sectorial	EU Channels	<p>This includes channels managed by the EU and made available to H2020 Projects.</p> <p>They will be mostly used to address professional groups, such as Healthcare and clinical organizations, Research organizations, Commercial organizations, as well as Policy-makers and funders.</p>
	Scientific publications	<p>This channel includes publications in journals and magazines or at scientific conferences and symposia.</p> <p>It will be the main channel to address Research organizations and to ensure the dissemination and use of the research oriented components of the Project.</p>
	Trade fairs	<p>This channel will be used to address Commercial, Healthcare and clinical organizations, in order to pave the way to an effective dissemination and exploitation phase, to be conducted after the end of the Project.</p> <p>Specific fairs will also allow to address Policy-makers and funders.</p>
Focused	Clustering	<p>Clustering with other Projects – in the same or in close areas – aims at sharing information on BD2Decide that may lead to additional research and/or industrial co-operation.</p>
	Restricted meetings	<p>This is the channel that will be used for communication actions that are very close to scientific or industrial dissemination and/or exploitation. For example, it includes meetings with potential customers or workshops with other research teams to start joint initiatives.</p>

Responsibility and timing

The selection of the most appropriate communication channel is carried out under the responsibility of MME, Work-package Leader of *WP9 Communication & Exploitation*.

It will be conducted each time a new entry is added to the list of communication opportunities, illustrated in subsection 2.1.



2.4 SELECTION OF FORMAT

When target groups and channels have been identified, the most appropriate message format shall be formulated, depending on the former elements as well as on the nature of the message.

It is very important that the decision is made by taking into consideration all the above mentioned dimensions.

For example, different channels present different limits to the format that can be used: for instance social networks mostly rely on micro-posts, where text is limited in size, although pictures and videos are allowed in some cases; on the other side, printed newsletters can feature more elaborated text content but have few multimedia capabilities, etc.

In addition, within these limits, decisions must also be based on the targeted groups or on the nature of the message. For example:

- Messages to involve the general public should be more attractive, with more visual content, in order to convince a non-specialist citizen to read through the message
- Messages directed to specialists (e.g. at Healthcare and clinical organizations or Research organizations), who generally know in advance a significant amount of background information, will likely need less “aesthetic” content and more hard data to show what concretely BD2Decide has to offer
- On the other side, some messages may intrinsically require usage of images (e.g. when addressing data visualization tools) or even video (e.g. if complex workflows are involved)
- And so on.

Responsibility and timing

This action is carried out under the responsibility of either:

- MME, as Work-package Leader of *WP9 Communication & Exploitation*, for Consortium level initiatives
- The relevant Partner, for Partner level initiatives

The action will be conducted in due time, as specified in the list of communication opportunities (subsection 2.1).

Once elaborated, the content of the communication may be subject to approval procedures, as illustrated in Section 5.

2.5 PRODUCTION AND PUBLISHING

When the content is ready and approved, it can be published, using the selected channels.

Responsibility and timing

This action is carried out under the responsibility of:

- MME, as Work-package Leader of *WP9 Communication & Exploitation*, for Consortium level initiatives



- The relevant Partner, for Partner level initiatives

The action will be conducted according to plan, after the approval procedures listed in Section 5 have been completed with positive outcome, if applicable.

2.6 DISSEMINATION MATERIALS

The overall communication strategy, illustrated in the preceding subsections, is based on the generation, planning and publication of relevant messages, tailored to the needs of the specific audience groups addressed by BD2Decide.

The strategy needs to be correspondingly supported by relevant dissemination materials, as it is appropriate to reinforce and substantiate the messages themselves and to further attract the interest of targeted actors.

The development of a high quality set of such materials has been planned as *D9.5 Dissemination materials – first release* to delivered at M8 (two further releases are planned at M20 and M32).

A summary of D9.5 content is reported in the following, for reader's convenience:

- Project Logo
- Project Web site
- Project presentations template
- Project social network accounts
- Project leaflet/brochure
- Project newsletter format and editorial plan
- Project video presentation

Some of these materials will be implemented immediately, while others – e.g. video presentation, that may require the availability of relevant project results to be created – will be published in later phases of the Project.



3 COMMUNICATION AND DISSEMINATION ACTIVITIES DURING THE FIRST PERIOD (M1-M18)

[Note: this section is **new** wrt D9.2]

In this section, the results achieved by the application of the strategy illustrated in the previous section in the period M1-M18 (i.e. from January 2016, start of the project, to June 2017, time of writing) are reported. The comparison of such results with targets established in D9.2 is presented later, in Section 6.

3.1 PUBLICATIONS

According to the strategy illustrated in previous Section 2, the period from M1 to M18 has been mainly dedicated to general awareness raising, while waiting for full availability of relevant Project outcomes, planned for later workplan periods. In general, the above implies a reduced availability of publishable scientific results. This notwithstanding, the Consortium has still been able to publish 3 articles in scientific journals, to submit 2 papers in conference proceedings (to be published on M19) and to present one scientific poster.

The following table provides details of the above publications.

Table 4. BD2Decide publications, period M1-M18

Type	Authors and title	Date	Journal, proceedings, book, etc.	Partner
Article in journal	Scheckenbach K. · Colter L. · Wagenmann M., “Radiomics in Head and Neck Cancer: Extracting Valuable Information from Data beyond Recognition”	2017	ORL J Otorhinolaryngol Relat Spec.	UDUS
Article in journal	Even AJ, Hamming-Vrieze O, van Elmp W, Winnepenninckx VJ, Heukelom J, Tesselaar ME, Vogel WV, Hoeben A, Zegers CM, Vugts DJ, van Dongen GA, Bartelink H, Mottaghy FM, Hoebbers F, Lambin P., “Quantitative assessment of Zirconium-89 labeled cetuximab using PET/CT imaging in patients with advanced head and neck cancer: a theragnostic approach”	January, 2017	Oncotarget	MAASTRO



Article in journal	Tonella L, Giannoccaro M, Alfieri S, Canevari S, De Cecco L., “Gene Expression Signatures for Head and Neck Cancer Patient Stratification: Are Results Ready for Clinical Application? Review”	May, 2017	Current Treatment Options in Oncology	INT
Publication in Conference proceedings/Workshop	Laura Lopez Perez, Liss Hernandez, Giuseppe Fico, and Maria Teresa Arredondo, “Definition of a Decision Support System to Support Research on Head and Neck Cancer”	July, 2017	39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Korea	UPM
Publication in Conference proceedings/Workshop	Giuseppe Fico, “Big Data for Head & Neck Cancer (Workshop on BIG DATA TO IMPROVE OUTCOMES, PROCESS AND SERVICES IN HEALTH)”	July, 2017	39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Korea	UPM
Other	Berlanga, A.J., Petersen, M., Hoebbers, F., Delbressine, S., van den Brek, M., Lambin, P., “Towards a validated Decision Aid Tool for advanced larynx cancer patients”	2017	Towards a validated Decision Aid Tool for advanced larynx cancer patients	MAASTRO

3.2 DISSEMINATION AND COMMUNICATION ACTIVITIES

During the period M1-M18 the Project conducted a very significant record of communication and dissemination activities, aimed at raising awareness of the Project and its evolution towards various stakeholder categories, with important results:

- Several hundreds of representatives of the scientific community have been reached through organization conferences and workshops, participation to scientific exhibitions and training sessions; many more – in the order of thousands – have been reached through online channel, such as academic Partners’ websites
- Several tens of industry representatives have been reached through exhibitions and other events, to start investigating interest regarding potential, future exploitable results
- Around 20 civil society representatives (mainly from patients’ associations) have been reached, to start presenting the ultimate benefits for patients envisaged in the Project
- Around 15 policy makers have been addressed, to inform them of the advantages that BD2Decide could bring to HNC care processes



- General public has been addressed through online channels (see also next subsection 3.3), press releases and open conferences, totaling several thousands of people reached and informed about the Project
- 5 investors representatives have also been contacted by Partner Fraunhofer at the RSNA exhibition in Chicago

The above results, the details of which are reported in the following table, are evidence of a good start in the awareness raising phase, that will continue in the next period, together with more “presentation-oriented” initiatives, as mentioned in Section 2.

Table 5. BD2Decide communication and dissemination activities, period M1-M18

Type	Description	Place and date	Estimated audience	Partner
Exhibition	RSNA (Radiological Society of North America Annual Meeting)	Chicago, 27/11/2016-2/12/2016	Scientific Comm.: 15 Industry: 25 Policy makers: 5 Media: 10 Investors: 5	Fraunhofer
Website	Design and implementation of the BD2Decide Page at All-in-Image web site	From June 2016 onwards	General public: 500	AI
Website	Publication of relevant information about the BD2Decide Project on the company website	From June 2016 onwards	General public: 500	MME
Website	Publication of BD2Decide dedicated page on POLIMI website	From June 2016 onwards	Scientific comm.: 1000 General public: 400	POLIMI
Organization of a conference	INT annual research activity presentation “La giornata della ricerca”	Milan, 23/6/2016	Scientific comm.: 200 General public: 1000	INT
Participation to an Event other than a Conference or a Workshop	Medical Innovation Summer School on Rare Cancer	July-August, 2016	Scientific comm.: 30 Industry: 10 Civil society: 5 Policy makers: 5	UPM
Press release	Article on national online magazine “Il Sole 24 Ore online”, titled “All'ospedale di Parma big data e modelli predittivi per la cura del tumore del cavo orale”	Milano, 26/7/2016	General public: 1000	AOP



Type	Description	Place and date	Estimated audience	Partner
Press release	Article on local newspaper “Gazzetta di Parma”, titled “Il computer della Nasa aiuta a combattere i tumori”	Parma, 28/7/2016	General public: 1000	AOP
Organization of a workshop	Workshop jointly organized with FP7 OraMod project titled “Nuove frontiere terapeutiche nella cura dei tumori del cavo orale”	Parma, 30/9/2016	Scientific comm.: 40 General public: 20 Policy makers: 5 Media: 1	AOP, UNIPR
Training	Demo of Radiomics FE software	Milano, 26/1/2017	Scientific comm.: 40	POLIMI
Other	Presentation to Hellenic Pasteur Institute of the BD2Decide project and the technical solutions for managing big data (from anonymised patients’ records and population data) towards providing personalisation in deciding treatments for HNC patients. Focus on the project vision and sample of the functions already been specified for data collection and visualisation	Athens, 2/2/2017	Scientific comm.: 4	ATC
Participation to an Event other than a Conference or a Workshop	Presentation Patient Decision Aid Tool, Dutch organization of Head and Neck cancer patients	Utrecht, 6/4/2017	Civil society: 15	MAASTRO
Organization of a conference	INT annual research activity presentation “La giornata della ricerca”	Milan, 23/5/2017	Scientific comm.: 200 General public: 1000	INT
Other	Presenting progress on the BD2Decide project at the weekly <i>Cancer Center Amsterdam</i> work discussions	June 2016-June 2017, monthly	Scientific comm.: 20	VUMC

3.3 INBOUND ONLINE CHANNELS

In addition to the publication, dissemination and communication activities conducted by individual Partners, illustrated in the previous subsections, BD2Decide has conducted several Consortium level communication activities that – in the period M1-M18 – have been focussed on inbound online communication, i.e. through the Project website and the Project social media channels, as illustrated in the following.

3.3.1 Project website

The Web Site was made live on June 2016 (URL: <http://www.bd2decide.eu/>).

According to deliverable D9.1 and subsequent adjustments performed along the conduction of the work-plan, the website delivers the content elements illustrated in the following table

Table 6: The main content element delivered by the Project website

Section	Content
Overall project information	Static pages with all relevant public information about the Project, including strategy and objectives, usage scenarios, structure, expected results, composition of the Consortium.
Public deliverables	All public deliverables issued to date, including D1.2, D2.1, D2.2, D2.3, D3.2, D5.1, D5.2, D7.2, D9.1, D9.2, D9.5. For each deliverable, the website reports a brief abstract and a link to the downloadable full PDF version.
Publications	Links to 4 scientific publications from BD2Decide Partners
Project Blog	Section that includes several dissemination / communication posts, targeting different actors categories. Currently 8 posts have been written.
Other material	Links to download the official Project Leaflet and Project logo.

We now present relevant analytics, collected from the launch of the Web site until June 11th, 2017 (date of writing of this subsection), that provide quantitative evidence of the engagement of visitors with the site.

In the monitored period, the site has been visited 709 times. The analysis shows that from the total number of visitors 618 were unique visitors, while 285 were returning visits. The distribution of these visits in time is presented in Figure 2.

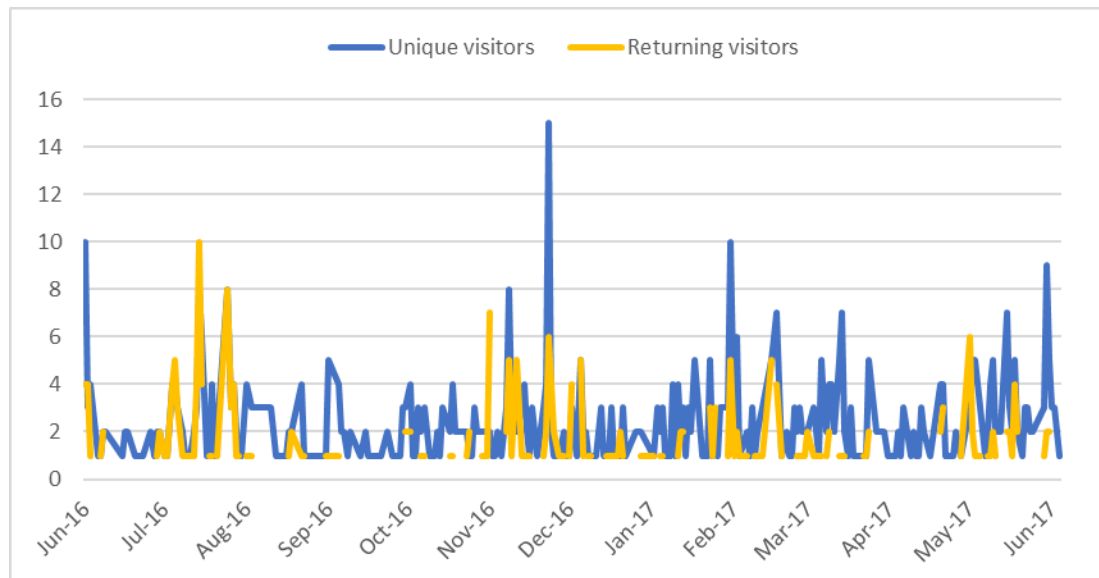


Figure 2: Distribution of website visits for this project period.

Table 7 summarises the main statistics of the website for this period. From the statistics, we see that on average each visitor has stayed more than 4 minutes on the site, while an average of around 5 actions per visit have been recorded, including views of internal pages and downloads. These numbers turn out to be better for the returning visitors, giving almost 7 minutes for these visitors to stay on the site and perform around 6 actions per visit.

Table 7: The main statistic of the bd2decide.eu domain for the reported period.

Website Statistics	Period M1-M18
Unique Visitors	618
Number of visits	709
Returning visits	285
Average time per visit	4,21min
Average time per returning visit	6,57 min
Number of actions per visit	4.9
Number of actions per returning visit	6.1
Number of page views	3313
Number of unique page views	2174
Number of downloads	53

Figure 3 and Table 8 summarise the geographical distribution of the visitors and their domain or country of access to the Web Site.

Although the effect of local communication performed by Partners in their respective countries (e.g. Italy, Spain, Germany, Israel, Netherlands and Greece) is evident, it is also noteworthy that visitors from other relevant countries, such as the United Kingdom and the United States, have also been attracted to the BD2Decide website. This may be due, for example, to international dissemination activities performed by Partners (e.g. dissemination by Fraunhofer at the RSNA exhibition in Chicago) or to the synergy with online communication activities on social media (see next section).

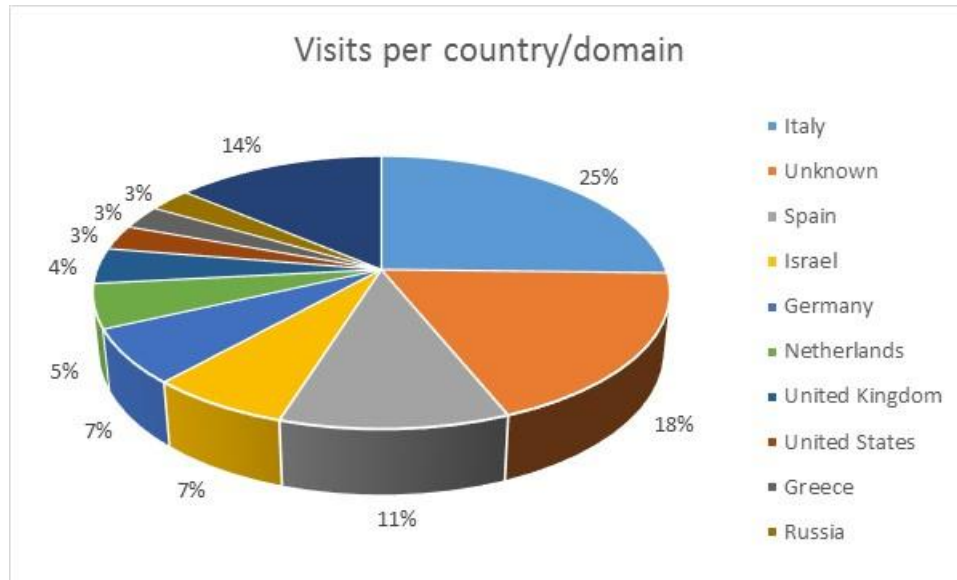


Figure 3: Percentage of website visits for the top 10 countries.

Table 8: Website visitors' domains/countries for this period.

Visitors Domains/Countries		
Domains / Countries	Visits	Unique Visitors
Italy	180	151
Unknown	131	109
Spain	78	67
Israel	48	42
Germany	46	45
Netherlands	37	35
United Kingdom	30	26
United States	21	20
Greece	20	18
Russia	20	18
Belgium	13	11
France	12	12

Visitors Domains/Countries		
Domains / Countries	Visits	Unique Visitors
India	11	11
Turkey	7	2
Belarus	6	5
Other countries/domains	49	47
Total	709	618

In Figure 4, we present the percentage of visitors who spent a particular time spell in browsing the contents of the Web Site.

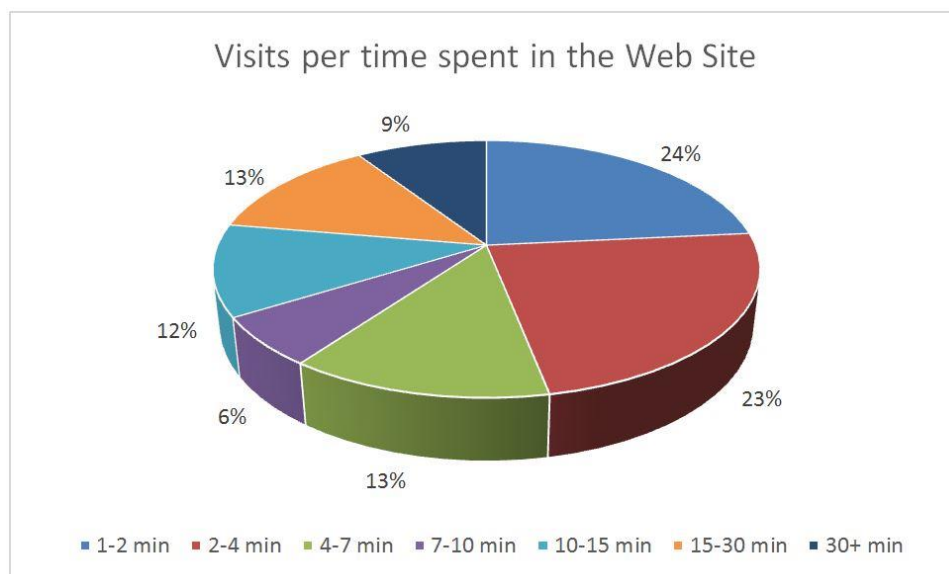


Figure 4: Percentage of website visits duration.

Consistently with the averages reported at the beginning of this subsection, most visitors spent between 2 to 7 minutes (more than one third of total), although the percentage of visitors that stayed on the site for a period between 10 to 15 minutes is also sizeable (around one quarter of total).

3.3.2 Social media accounts

According to the plan reported in subsection 2.3 above and in deliverable *D9.5 Dissemination materials - first release*, the following actions have been completed to address social media:

- Opening of a BD2Decide Twitter account at <https://twitter.com/bd2decide>
- Opening of a BD2Decide Facebook page at <https://www.facebook.com/bd2decide>
- Registration of a BD2Decide team member (at MME) on several LinkedIn Groups, related to areas of interest for the Project dissemination and communication (see D9.5)



These accounts have been used to relay actions involving production of relevant material (such as the publication of a public deliverable, or writing a Project Blog post).

The objective of these actions has been to reinforce dissemination of BD2Decide public content, an objective that seems to have been satisfactorily achieved during the period M1-M18, looking at the web analytics reported above.



4 OPERATIONAL PLANNING

[Note: this section has been **modified** wrt Section 3 in D9.2]

This section defines the communication actions that the Project will implement – at both Consortium level and individual Partner level – in order to operatively implement the strategy presented in the previous Section 2.

4.1 CONSORTIUM LEVEL OPERATIONAL PLANNING

Consortium level communication actions revolve around assets collectively produced by Partners during the development of the BD2Decide work-plan: public deliverables, demonstration of prototypes and the organization of dedicated scientific workshops in three EU countries represented in BD2Decide, according to what planned in DoA, Part A.

Details are provided in the following table.

Table 9. Consortium level operational planning

Description	Targeted group(s)	Size of audience (estimate)	Timing
Public Project deliverables	Potentially all, depending on the deliverable. Choice of specific targets to be made according to Section 2 above.	Order of 1000s	According to work-plan in DoA, Part A
Demonstration of project prototypes	Healthcare and clinical organizations, Commercial organizations	Order to 100s	After Milestone 3, when BD2Decide prototypes will be available
Scientific workshops in Italy, Germany and the Netherlands	Research organizations	Order of 1000s	After Milestone 3, when significant scientific results will be available

These elements will produce a series of multiple communication actions, according to the workflow illustrated in Section 2, which are listed in Annex A for the period from Month 19 to Month 30, covered by this deliverable (the following period will be covered in deliverable *D9.4 Communications plan and strategy, third release*).



4.2 PARTNER LEVEL OPERATIONAL PLANNING

Besides the Consortium level actions, presented in the previous subsection, each Partner will also enact an individual communication strategy, aiming to synergically reinforce the Project communication effort, by addressing specific concerns such as:

- Particular exploitation targets of interest to the Partner (e.g. by scientific area, clinical application or industry segment)
- Exploitation of additional communications channels available to the Partner (e.g. customer lists and business networks for companies, educational activities for universities, participation in government panels and workgroups for healthcare organizations, etc.)
- Localization (e.g. translation in local language, adaptation to the local healthcare structure and regulations, etc.)

In the following subsections the individual communication planning of each BD2Decide Partner is presented in detail.

In particular, for each Partner, the following is illustrated:

- Overall rationale of the Partner's individual communication strategy
- List of planned communication actions, including for each action:
 - Brief description of the action
 - Groups targeted by the action (the groups are selected among those foreseen in the DoA and listed for convenience in subsection 1.1)
 - Estimate of the size of the audience that can be potentially reached
 - Tentative scheduling/timing

The plans here presented will be conducted under the direct responsibility of the relevant Partner.

When sufficient detail is available, actions proposed by Partners will also be added to the list of Consortium level communication opportunities reported in Annex A, in order to relay and reinforce Partner level communication. This objective will be continuously pursued as more details become available, in the frame of the constant update of the list of communication opportunities (see section 2.1).



4.2.1 AOP and UNIPR

4.2.1.1 Overall communication strategy (July '17 to June '18)

As it has been done in the first period (M1-M18) – given that AOP is a University hospital and most clinicians are also university professors at Parma University (UNIPR) medicine faculty – the dissemination actions for period M19-M30 will be jointly performed by Partners AOP and UNIPR whenever scientific and medical communication actions will be involved.

Within the above described framework, the following actions have been planned.

4.2.1.2 List of planned actions (July '17 to June '18)

Description	Targeted group(s)	Size of audience (estimate)	Timing
Posters presenting BD2Decide and the role of patients for research, placed at University hospital spots (e.g. emergency ward, ENT department, maxillo-facial department, radiological wards, outpatients clinics (oncology, radiotherapy, ENT)	General public	Order of 1000s	Across the whole period M19-M30
(Possibly) Submit a paper to EORTC Head and Neck cancer group meeting, http://www.eortc.org/events/category/head-and-neck-cancer-group/	Scientific medical community	Order of 100s	13-14 October 2017
Submit a paper concerning results from pathologic prognostic factors vs. TNM v7 and V8	Scientific medical community	Order of 100s	By year end 2017



Description	Targeted group(s)	Size of audience (estimate)	Timing
Organize a meeting with Regional Health Authorities to present the project	Policy makers and funders	Order of 10s	Year end 2017-first half 2018
Participate to head and neck cancer day promotional activities toward citizens	General public	Order of 100s	In 2018
Submit a paper to ECHNO 2018, http://www.echno2018.com/	Scientific medical community	Order of 100s	April 11-14, 2018
Submit a paper to SIO 2018	Scientific medical community	Order of 100s	May 16-18, 2018
Submit a paper to American Society Of Clinical Oncology (ASCO) Annual Meeting 2018	Scientific medical community	Order of 100s	June 1-15, 2018 (abstracts to be submitted by December 2017)
Submit a paper to IAOO 2019 http://www.iaoo2019.com/	Scientific medical community	Order of 100s	July 3-6, 2019



4.2.2 VU/VUmc

4.2.2.1 Overall communication strategy (July '17 to June '18)

First of all, we will frequently present the progress and results of the BD2Decide project during the weekly work discussion within our tumorbiology focus group. Secondly, we have written an article on the validation of the TNM-8 on p16-positive OPSCCs and we will submit the article in June/July of 2017. Furthermore, we will apply for a presentation on that article during the 2nd International Symposium on Tumor-Host Interaction in Head and Neck Cancer / 3rd International Symposium on HPV Infection in Head and Neck Cancer.

In addition, VUmc statisticians are working on methodological issues relating to (a) re-calibrating available statistical models to multiple patient populations with applications to BD2Decide multi-center data (b) estimating optimal treatment regimens to personalize head and neck cancer treatments. Results will be published in two papers and presented at scientific conferences.

4.2.2.2 List of planned actions (July '17 to June '18)

Description	Targeted group(s)	Size of audience (estimate)	Timing
Submitting the article "Validation of TNM-8 on p16-positive OPSCCs and the importance of additional HPV DNA-testing	Otolaryngologists, medical oncologists, radiotherapists, scientists.	10.000	June-July 2017
Presenting the above mentioned study at the weekly CCA work discussions	PhD students, postdocs	20	June 2017
Presenting progress on the BD2Decide project at the weekly CCA work discussions	PhD students, postdocs	20	July 2017 – Jan 2018
Presenting the above mentioned study at the 2 nd International Symposium on Tumor-Host Interaction in Head and Neck Cancer / 3 rd International Symposium on HPV Infection in Head and Neck Cancer	Otolaryngologists/head and neck surgeons, medical oncologists, radiotherapists, scientists.	250	Jan 2018



Description	Targeted group(s)	Size of audience (estimate)	Timing
(a) Paper on-calibrating available statistical models to multiple patient populations	Statisticians, Methodologists, Epidemiologists	1000	June 2018
(b) Paper “Identifying treatment effect heterogeneity from retrospective patient registries: a statistical learning approach”	Statisticians, Methodologists, Epidemiologists	1000	June 2018
Presentation on (a)	Statisticians, Methodologists, Epidemiologists	50	July 2018
Presentation on (b)	Statisticians, Methodologists, Epidemiologists	50	July 2018



4.2.3 UDUS

4.2.3.1 Overall communication strategy (July '17 to June '18)

As an academic and research Partner, UDUS will continue its scientific publication activities, as done in the previous period. UDUS also systematically informs about the Project to related other clinics in Germany. As mentioned in the plan for the previous period, as soon as results are available, UDUS plans to participate in publishing peer-reviewed journals. Furthermore, we will present the findings at national and international conferences.

In student's lessons and lectures associated with oncologic topics, BD2Decide will also be shown to students and therefore confronting them with ongoing science in this field.

4.2.3.2 List of planned actions (July '17 to June '18)

Description	Targeted group(s)	Size of audience (estimate)	Timing
Integration in lectures	students	50	2h/6Month
Presentations	colleagues	Several groups, 20-30 persons	varying
Internal communication	Colleagues also of other specialities	5-20 persons	varying
Presentations at national/international conferences	colleagues	20-100	varying
publications	colleagues	varying	varying
Presentation about BD2Decided themes (modelling, radiomics etc in Head and Neck Cancer) for the next National German ENT Congress in 2018 (DGHNO).	colleagues	varying	2018



4.2.4 INT

4.2.4.1 Overall communication strategy (July '17 to June '18)

The dissemination will take place throughout the duration of the project, with continuous diffusion of the results.

Promotional material will be designed and developed, aimed at presenting briefly the project, its partners, activities and the expected outcomes. The promotional material will be handed at all project events and at major conferences where the project will be presented.

Scientific publications are envisaged to disseminate the methodological results of the project. We aim at giving project presentations at local and international meetings, events, congresses throughout the duration of the project. Presentations will aim at awareness raising and they will aim at persuading people, physicians as well as patients, to take advantage of the project outcomes. International communication will be in English, associated, in the local communication, to the national language.

The results of the clinical study will be reported at general and disease specific oncological meetings and congresses. ECPC (European Cancer Patients Coalition) that is currently implementing a head & neck cancer task force, as well as national advocacy groups will be contacted.

Moreover INT is also coordinating the Joint Action on Rare Cancer (JARC) which aims at prioritising rare cancers (RCs) in the agenda of the EU and Member States, and at developing innovative and shared solutions, mainly to be implemented through the European reference networks on rare cancers, in the areas of quality of care, research, education and state of the art definition on prevention, diagnosis and treatment of rare cancers.

Head and neck cancers are rare cancers thus INT will disseminate information on BD2Decide in the discussion dedicated to quality of care and research and innovation which include researchers, clinical experts, politicians, health care planners, and scientific societies.

INT supports the make sense campaign which is the EU head and neck awareness week. The results of the project will be mentioned in this campaign at European and National level.

Publications on peer-reviewed journals of at least 3 open access papers:

- 1) Research paper: *Are fusion transcripts in relapsed/metastatic head and neck cancer patients predictive of response to anti-EGFR therapies?* Paolo Bossi, Marco Siano, Cristiana Bergamini, Maria Cossu Rocca, Andrea P. Sponghini, Luca Tonella, Marco Giannoccaro, Edoardo Marchesi, Federica Perrone, Silvana Pilotti, Laura D. Locati, Silvana Canevari, Lisa Licitra and Loris De Cecco in *Disease Markers*, Special Issue on “Predicting and Understanding Cancer Response to Treatment”, (in revision) 2017. **This paper gives in selected H&N cancer samples the proof of principle of the relevance of fusion transcripts in predicting sensitivity/resistance to a targeted therapy and opens the way to new genomics evaluations**
- 2) Research paper: *Comprehensive meta-analysis of publicly available microarray data in HPV-negative oral squamous cell carcinoma.* Paolo Bossi, Henry Wirth, Salvatore Alfieri, Laura Locati, Lisa Licitra, Silvana Canevari, and Loris De Cecco (manuscript in preparation). **This meta-analysis allowed disclosing molecular subtypes characterized by unique expression profiles and prognostic behaviors. The biological pathways associated to each subtype were investigated by gene set enrichment analysis and the**



most deregulated pathways include epithelial mesenchymal transition, cell motility, angiogenesis, and hypoxia.

- 3) BD2Decide joint Research paper referring the genomics results obtained on OSCC (retrospective series) (planned)

Presentation of data (poster/oral presentation) to national and international meetings

4.2.4.2 List of planned actions (July '17 to June '18)

Description	Targeted group(s)	Size of audience (estimate)	Timing
Peer-reviewed Publication	Scientific community	Estimate for an open access	November 2017
AIOM National Congress	Scientific community	Patients associations/Physicians/General population	October 2017
AIOCC	Scientific community	Physicians, researchers, Italian Head and Neck Oncologic Society.	10 November 2017
AIRO - XXVII Congress 2017	Scientific community	Physicians, researchers.	11-13 November–2017
ESO-ESMO-RCE	Scientific community	Researchers, Clinical Update on Rare Adult Solid Cancers	02/04 December 2017, Milan, Italy
Presentation at 2 JARC meetings (WP6 on clinical guidelines and WP7 on research)	Researchers, clinical experts, healthcare providers, scientific societies	Researchers, clinical experts, healthcare providers, scientific societies (about 30 subjects)	End 2017 - first semester 2018
Make-sense campaign initiatives	Politicians and general public	Politicians and general public	Campaign 2017
ECHNO 2018	Scientific community, Medical oncologists	Researchers, 8th European Congress on head and neck oncology	11-14 April 2018
Abstract submission to ESMO	Medical oncologists, healthcare providers, researchers with an interest in oncology	European Medical Oncology Society	October 2018
Posters and abstracts	Scientific community	Related to topic of conference	2017 - 2018
Presentation(s) at conference(s)	Scientific community	Related to topic of conference	2017 - 2018



Description	Targeted group(s)	Size of audience (estimate)	Timing
Journal Paper(s)	Scientific community	Related to Journals IF	Year 2018



4.2.5 UPM

4.2.5.1 Overall communication strategy (July '17 to June '18)

In this moment, the Life Supporting Technologies group of the UPM is at the edge of international R&D&I activities. The LST group is active in H2020 research and innovation projects, is a core partner of the EIT Health and leader of the Living Lab and Testbed Accelerator activities and has coordinating role in the European Innovation Partnership on Active and Healthy Ageing. This means that it has clear and strong connections with all the stakeholders of the innovation value chain, this means that the communication strategy will be done in several directions, as it is shown in the next table.

4.2.5.2 List of planned actions (July '17 to June '18)

Description	Targeted group(s)	Size of audience (estimate)	Timing
Participation to the IEEE EMBS and IFMBE conferences	Biomedical engineers and clinical engineers' national societies worldwide. And Biomedical Engineering Society	The IEEE EMBS, MEDICON and IUPESM conference have usually an attendance of around 1000 persons.	At least 1 Action at the end of each year (starting from month 12)
Publication on a journal or conference about the UCD methodology followed on the research tool definition	Biomedical engineers and clinical engineers national societies worldwide. And Biomedical Engineering Society	NA	At least 1 Action at the end of de period
Publication on a journal about big data techniques that UPM is defining for exploitation of population data and litterature	Biomedical engineers and clinical engineers national societies worldwide. And Biomedical Engineering Society	NA	At least 1 Action at the end of de period
Training on Ontology and BD2D Data Layers for the subject "Electronic Health Records, Terminologies and Standards"	undergraduate Students of Biomedical Engineering at UPM	30	First half of 2018



Description	Targeted group(s)	Size of audience (estimate)	Timing
Proposal for exploitation of the VAT tool through accelerator and incubator programs of the EIT-Health during the matchmaking events	Industries, Healthcare Professionals	400	1 per year



4.2.6 Fraunhofer

4.2.6.1 Overall communication strategy (July '17 to June '18)

Fraunhofer IGD will focus its communication strategy on the dissemination in scientific papers and conference talks, as well as the presentation at exhibitions.

Furthermore, Fraunhofer will present the BD2Decide software and its novel algorithms at the RSNA in Chicago, which is the world's biggest medical meeting. Every important hardware and software company from the medical field is present at this exhibition. Hereby, the BD2Decide project will be presented and potential interested customers of the software solutions can be found.

In addition, Fraunhofer will publish the results and the outcome of newly developed algorithms in scientific papers and journals to raise the awareness of the project.

4.2.6.2 List of planned actions (July '17 to June '18)

Description	Targeted group(s)	Size of audience (estimate)	Timing
Scientific Paper on tumor segmentation algorithms	Scientific community	Dependent on Journal IF	M21
Demo of BD2Decide software	Exhibition of the "Radiological Society of North America" in Chicago	The exhibition has around 11500 visitors	M24
Scientific Paper on BD2Decide software in clinical practice	Scientific community	Dependent on the Journal IF	M24

4.2.7 ATC

4.2.7.1 Overall communication strategy (July '17 to June '18)

Following the achievements from the implementation of the ATC communication strategy for the first 18 months of the project, ATC plans to expand the communication activities for the period M19-M30 by exploiting the actual implementation performed especially in WP5 for the visualization tools of the BD2Decide platform. The objective is to leverage awareness of the BD2Decide research and innovation efforts and engage stakeholders from the health domain, such as professionals, policy makers and researchers, in evaluating the platform development and the usability of the provided functionalities. Further to it, ATC plans to target ICT specialists in the technologies addressed by the project. Especially, the presence of ATC as a full member of BDVA will be exploited to drive the dissemination of the BD2Decide big data technologies to a wider group of scientists with particular focus and interest in the exploitation of big data for healthy living and healthcare.

Apart from wider dissemination, ATC plans to participate in meetings and events that will allow the company to promote the commercial potentials of the BD2Decide platform. To this end, ATC will join the Consortium efforts in strengthening the BD2Decide presence in ICT health related conferences and events for presentation and demonstration purposes and will seek for commercial contacts with a role in adopting the BD2Decide platform and the scientific results. Such events raise interest for the usability evaluation tasks of the BD2Decide platform, in which ATC takes the leading role. By doing so, ATC aims to open up opportunities for future commercialization agreements in the e-health / m-health domain and expand their customer portfolio to this business sector.

4.2.7.2 List of planned actions (July '17 to June '18)

Description	Targeted group(s)	Size of audience (estimate)	Timing
Support to the BD2Decide Web Site	All groups	Around 5000 unique visitors for the whole project duration	Frequent and periodic updates on the Web Site are being executed.
Support in expanding the BD2Decide social media presence by posting about the project using ATC social media accounts and using tags pointing to the project	All groups	Target for 50 followers	Monthly posts on the social media channels and the iLab group of ATC.



Description	Targeted group(s)	Size of audience (estimate)	Timing
Usability evaluation session	Healthcare and clinical organizations, scientific community, Patients Associations and Cancer Research NGOs	10-15 individuals	October 2017
Usability evaluation session	Policy makers, scientific community, Healthcare and clinical organizations, Patients Associations and Cancer Research NGOs	15-20 individuals	May 2018
Presentation and/or demonstration at the eHealthForum 2017 ²	e-health gatekeepers, industry leaders, scientists, patients and innovators	500	19 th – 24 th October 2017

² <http://www.ehealthforum.org/>



4.2.8 AII

4.2.8.1 Overall communication strategy (July '17 to June '18)

AII intend to implement the communication actions listed below.

4.2.8.2 List of planned actions (July '17 to June '18)

Description	Targeted group(s)	Size of audience (estimate)	Timing
Announcement about BD2Decide to Israel High-tech	Israel High-tech – Big Data community	6000 people	Q4, 2017
Announcement about BD2Decide to the local Head and Neck Cancer research community in Israel	Head and Neck Cancer research community in Israel	10 people	Q1, 2018
Periodic Company Twitter and LinkedIn BD2Decide Announcements	High-tech – Big Data community	1000s people	July 2017-June 2018



4.2.9 MAASTRO

4.2.9.1 Overall communication strategy (July '17 to June '18)

MAASTRO clinic bases its communication strategy through dissemination of results via conferences talks and scientific papers in order to inform scientific community about latest results in research.

Demonstrations of Oncoradiomics software will be used to inform healthcare organization about the use of radiomics features for outcome predictions

Web-based platforms will be employed to capture other institutions and patients interest in BD2Decide project

4.2.9.2 List of planned actions (July '17 to June '18)

Description	Targeted group(s)	Size of audience (estimate)	Timing
Scientific Paper on the detection of HPV status using RADIOMIC biomarkers	Scientific community	Dependent on Journal IF	M20
Demos Of Oncoradiomics software	Scientific community Healthcare organization	300	Actual
Demos of IPDAS larynx	Scientific community Healthcare organization, patient organizations	150	Actual
Website with interactive patient co-decision aid	Patients Healthcare organization Scientific community	5000	M24



4.2.10 POLIMI

4.2.10.1 Overall communication strategy (July '17 to June '18)

The purpose of POLIMI communication strategy in BD2Decide is the spreading of information about the MRI Radiomic tools and the MRI tumor phenotypes in HNC.

The main target groups include the scientific communities and the healthcare and clinical organizations.

The main content will be the association findings between MRI Radiomic and the other –omics results as a resource for the research community.

4.2.10.2 List of planned actions (July '17 to June '18)

Description	Targeted group(s)	Size of audience (estimate)	Timing
Conference participation at Annual International Conference of the IEEE Engineering in Medicine and Biology Society 2017	Scientific community	2500	M19
Partecipation to ICT4all (POLIMI researchers meet people)	General population	1000 – 1500 visitors	M22
Journal Paper	Scientific community	Related to Jounal's IF	M23
Participation to GNB 2018 national bioengineering conference, Milan	Scientific community and industrial stakeholders	500	M30
Organization of Workshop at Annual International Conference of the IEEE Engineering in Medicine and Biology Society 2018	Scientific community	2500	M31



4.2.11 MME

4.2.11.1 Overall communication strategy (July '17 to June '18)

In the first period (M1-M18) MME contributed to raise awareness about the BD2Decide endeavor at the local (national, regional) level by informing stakeholders with which it relates locally – with particular focus on its customers in the area of eHealth solutions.

This included distribution of public dissemination material, as elaborated by the Consortium, such as the Project Leaflet, the Project Website and Public deliverables (with particular emphasis on D2.1, D2.2 and D2.3, that are those providing an overall, yet detailed and clear, overview of the results expected from the Project). MME has also published information on its company website, to make it known to all visitors its participation to the BD2Decide Consortium and to acknowledge the relevant support received from the H2020 Programme.

From M6 (date of issue of D9.1 and D9.2) onward, MME has continuously curated the web and social media presence for the whole Project, by maintaining the Project's website and the Project's social media accounts (Twitter, LinkedIn, Facebook).

More specific presentations (e.g. such as focused press releases or presentations at commercial exhibition and fairs) were not yet possible, as publishable results – beyond specifications as reported in the above mentioned deliverables – were not so far available.

The subsequent period (M19-M30) will be characterized by a more targeted dissemination and communication, depending in particular on the artefacts that the Consortium will make available for public demonstration. The following subsection lists the communication actions that MME will plan to implement in such period.

4.2.11.2 List of planned actions (July '17 to June '18)

Description	Targeted group(s)	Size of audience (estimate)	Timing
Continuing curation of the Project Website (at http://www.bd2decide.eu) and of Project social media channels on Twitter, LinkedIn and Facebook.	General Public, Policy-makers and funders Commercial organizations, Healthcare and clinical organizations	Around 1000	All period
Continuing publication of relevant information on the company's website, at http://www.multimedengineers.com/	All groups	100s of visitors	All period



Description	Targeted group(s)	Size of audience (estimate)	Timing
Depending on available publishable results, press release for regional newspapers, to raise general awareness about BD2Decide effort and the role of MME	General Public, Policy-makers and funders	Several 1000s	End of 2017 First half of 2018
Depending on available publishable results, national and regional trade fairs dedicated to healthcare, to raise awareness at relevant industry actors	Commercial organizations, Healthcare and clinical organizations	Several 100s	To be precisely determined on the basis of available results
Meetings organized by MME in the course of its current business operations with local healthcare authorities, to discuss specific business opportunities	Policy-makers and funders, Healthcare and clinical organizations	Order of 10s	All period



5 PROCEDURES

[Note: this section is **unmodified** wrt Section 4 in D9.2]

5.1 APPROVAL CYCLE

Under article 29.1 of the GA, the BD2Decide Consortium has an obligation to disseminate results by “disclosing them to the public by appropriate means (other than those resulting from protecting or exploiting the results), including in scientific publications (in any medium).”

The modalities chosen by the BD2Decide Consortium to fulfil this obligation are addressed in the previous sections.

The GA article also states that “A beneficiary that intends to disseminate its results must give advance notice to the other beneficiaries of — unless agreed otherwise — at least 45 days, together with sufficient information on the results it will disseminate. Any other beneficiary may object within — unless agreed otherwise — 30 days of receiving notification, if it can show that its legitimate interests in relation to the results or background would be significantly harmed. In such cases, the dissemination may not take place unless appropriate steps are taken to safeguard these legitimate interests.”

In addition to this, the BD2Decide CA – article 8.3.1 – establishes additional provisions, including those aimed at defining what is a “justified objection” and how to negotiate its resolution.

The following procedure describes the approval cycle that the BD2Decide Consortium will use to regulate publication of results by Partners consistently with article 29.1 of the GA and article 8.3.1 of the CA.

Table 10. Approval cycle for publishing Project results

Step	Description	Input	Output
1	<p>A Partner that wants to publish own results should notify all other Partners, by sending a copy of the information it wishes to publish.</p> <p>According to art. 8.3.1.1 of CA, the notification should be sent at least 45 calendar days before the date proposed for the publication.</p>		Notification of information proposed for publishing



Step	Description	Input	Output
2	<p>Any Partner that wants to object to the publication can do so by writing (including through email) to the Project Manager and the Partner that proposed the publication within 30 days from receiving the notification under (1) above.</p> <p>This communication must include:</p> <ul style="list-style-type: none">• Explanation of the reason of the objection (it must be justified under art. 8.3.1.2 of the CA)• Identification of the parts of the document that the Partner does not want to be published• Explicit request for necessary modifications	Notification of information proposed for publishing	Objection to publication, sent to Project Manager and Partner proposing the publication, with proposal for modifications
3	If no objections have been received within 30 calendar days from the notification under (1) above, the publication is permitted.		Publishable information
4	<p>If one or more objections have been received, the Partner that proposes the publication should seek bilateral agreements with the Partners that objected, based on the relevant requests for modifications, according to art. 8.3.1.3 of the CA.</p> <p>The publication is permitted only if all Partners mentioned above agree.</p> <p>Partners that object to the publication can ask for a publication delay of not more than 90 calendar days from the time of raising the objection.</p>	Objection to publication, with proposal for modifications	Possibly modified publishable information, agreed by the proposing Partner and all objecting Partners



Step	Description	Input	Output
5	After 90 calendar days from the last objection raised, the publication is permitted if the content identified by the objecting Partner(s) is fully removed from the information to be published, according to art. 8.3.1.3 of the CA		Published information with objected parts removed.

5.2 PUBLICATION OF OTHER PARTNERS RESULTS

According to art. 8.3.2 of the CA, a Partner is not allowed to include in any dissemination activity another Partner's Results or Background without obtaining the owning Partner's prior written approval, unless they are already published.

5.3 INFORMATION ON EU FUNDING

Any publication of information regarding the BD2Decide Project, including those deriving from the enactment of the workflow illustrated in Section 2 of this deliverable, shall clearly display with appropriate prominence, the following:

- The EU emblem (as it may be downloaded from http://europa.eu/about-eu/basic-information/symbols/flag/index_en.htm)
- The notice “*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 689715*”

5.4 COMMUNICATION ACTIVITIES BY THE EC

According to the provisions of article 38.2 of the GA, the EC is entitled to “use for its communication and publicising activities, information relating to the action, documents notably summaries for publication and public deliverables as well as any other material, such as pictures or audio-visual material that it receives from any beneficiary (including in electronic form).”

The list of EC rights included in the above provision are presented under art. 3.8.2.1 of the GA.

If applicable and requested by Partners, the EC will add the following text to the published information:

“© – [year] – [name of the copyright owner]. All rights reserved. Licensed to the European Union (EU) under conditions.”



6 MEASUREMENT OF OUTCOMES

[Note: this section has been **modified** wrt Section 5 in D9.2]

Outcomes from the BD2Decide communication activity are expected along two main directions:

- **Direct outcomes**, in terms of audience size reached, segmented per targeted groups listed in subsection 1.1
- **Indirect outcomes**, in terms of how the communication activity actually sustains the Project exploitation objectives

Indirect outcomes will be dealt with in deliverables *D9.9 Market & Exploitation plan* and *D9.10 Market & Exploitation plans - Final release*, in the frame of exploitation planning.

Direct outcomes are being measured according to the procedure illustrated below:

- After each activity, an estimate of the audience that has been reached will be performed by the responsible Partner, segmented by target group (as much as possible). Depending on the nature of the channel, this assessment has been performed:
 - Punctually (e.g. number of attendees registered to events, as presented in subsections 3.1 and 3.2 above)
 - Continuous, to be conducted over a period of time (e.g. Web site engagement analytics, as presented in subsection 3.3.1 above)
- A consolidation of available estimates for period M1-M18 is presented in Table 11 below.
- Subsequent consolidations, in order to reach additional targets also established in Table 11, will be performed at:
 - Month 30, to be reported in *D9.4 Communications plan and strategy, third release*
 - Month 40, to be reported in *D9.10 Market & Exploitation plans, Final release*, as a guide to marketing- and exploitation-related communication, to be conducted after the end of the Project

Table 11. Audience to be reached per target group and point of assessment and comparison with actual value at M18

Target group	M18 Actual / planned	M30 Planned	M40 Planned
Commercial organizations	35 / 5	10	15



Target group	M18 Actual / planned	M30 Planned	M40 Planned
Healthcare and clinical organizations	Several hundreds ³ / 40	50	100
Research organizations		50	100
Policy-makers and funders	20 / 5	10	15
Patients Associations and Cancer Research NGOs	20 / 5	10	15
General public	More than 5.000 / 5.000	7.500	10.000

As shown in the table, targets for M18 have been achieved and even largely surpassed in some cases, giving evidence of the effectiveness of the dissemination and communication strategy laid out in D9.2. For this reason, the same strategy is re-proposed in this deliverable.

As the objectives for the period M19-M30 will in part be changing with respect to the previous period, as mentioned in Section 2, the Consortium will continue to carefully monitor the execution of the strategy and, if needed, will provide a revised formulation, to be presented in the next release of this deliverable, i.e. deliverable D9.4 due at M30.

³ In period M1-M30 Scientific organization and clinical organization have been reported together, as a distinction among the two was difficult at this stage of the Project



ANNEX A. UPDATED SCHEDULING

[Note: this section has been **modified** wrt Annex A in D9.2]

The table below represents Consortium level communication actions which are planned for at the date of writing.

Currently, the table covers the period from Month 18 to Month 30.

The table will be continuously updated during the course of the Project, in order to guide and support the implementation of the communication strategy illustrated in Section 2.

A new version of this table, covering the final period M30-M40, will be presented in deliverable D9.4.

Time	Event	Potential message	Target group(s)	Possible channels
M18	Public deliverable D5.4 on IPDA prototype available	BD2Decide is moving on	Generic	Twitter
M18	Public deliverable D5.4 on IPDA prototype available	Supporting the physician-patient dialogue in HNC	General Public	Project Blog, Facebook, press release
M18	Public deliverable D9.3 on Communication planning available	BD2Decide is moving on	Generic	Twitter
M19-M30	Give prominence to possible papers published by Partners at relevant scientific conferences.	BD2Decide contribution to scientific advancements in HNC treatment	Research organizations, Healthcare and clinical organizations	Project Blog
M20	Public deliverable D9.6 on the Dissemination materials – second release	BD2Decide is moving on	Generic	Twitter
M22	Give prominence to the Usability evaluation session, conducted by Partner ATC	BD2Decide applies user centered design to ensure the most accurate adherence to the needs of clinicians and patients	Healthcare and clinical organizations Associations and Cancer Research NGOs	Twitter Facebook Project Blog



Time	Event	Potential message	Target group(s)	Possible channels
M24	Public deliverable D5.3 on the BD2Decide visualization mockups	Demonstrating the deployment of DSS and Visual Analytics tool usage in clinical practice and its clinical and commercial value	Research organizations, Healthcare and clinical organizations, Commercial Organizations	Project Blog, LinkedIn
M24	Public deliverable D6.3 on Security and Standards for Clinical data	BD2Decide cares the personal data protection interests of Patients	Policy-makers and funders Patients Associations and Cancer Research NGOs	Facebook, Project Blog
M24	Give prominence to demonstration of BD2Decide at the Exhibition of the “Radiological Society of North America” in Chicago, by Partner Fraunhofer	BD2Decide soon to be ready for actual clinical deployment	Research organizations, Healthcare and clinical organizations Commercial Organizations	Twitter Project Blog LinkedIn
M28	Public deliverable D5.5 on the Clinical DSS tool suite	BD2Decide delivers its DSS integrated with other tools into the overall platform	Healthcare and clinical organizations Commercial Organizations	Project Blog, LinkedIn
M29	Give prominence to the second Usability evaluation session, conducted by Partner ATC	BD2Decide applies user centered design to ensure the most accurate adherence to the needs of clinicians and patients	Healthcare and clinical organizations Associations and Cancer Research NGOs	Twitter Facebook Project Blog
M30	Give prominence to UPM training activities on Ontology and BD2D Data Layers for the subject “Electronic Health Records, Terminologies and Standards”	BD2Decide concepts and discovery spread among young researchers and clinicians	Policy-makers and funders Associations and Cancer Research NGOs General Public	Twitter Project Blog LinkedIn



REFERENCES

[Note: this section is **unmodified** wrt References in D9.2]

- [1] GRANT AGREEMENT NUMBER — 689715 — BD2Decide digitally sealed by the European Commission on October 21st 2015
- [2] Consortium Agreement for the BD2Decide project (based on the Desca model, 2015), Version CA. Version 2016-03-03
- [3] Communicating EU research and innovation guidance for project participants, version 1.0, 25 September 2014