

Communication and Dissemination Plan

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Revision history

#	Document version	Section	Revision description
1	Version 2 (28.11.2022)	Key Audiences (“Who?”)	Added a section on the partner workshop held in January 2022.
		Method (“How?”)	Added a section on the toolkit provided to partners for their workshops.
		Method (“How?”)	Added a section on the collaboration with other EU-funded projects.
		Monitoring & Evaluation	Updated the KPI table with a section on ‘Status’ and ‘Action’ to improve monitoring. Relevant adjustments in the KPIs are explained within this section.
		Annex 1: Human Microbiome Action Impact Pathways	Updated the section to reflect requested changes during the amendment.
		Annex 7: Persona Exercise	Added to the annex to showcase the exercise of the partner workshop in January 2022.
2	Version 2.1 (02.03.2023)	Method (“How?”)	Added justifications on the selection of involved social media channels
		Time (“When?”)	Included a timeline on the preparation and distribution of a project leaflet/bookmark
		Monitoring & Evaluation	Included additional details on how specific metrics have been generated, their feasibility and verification
		Monitoring & Evaluation	Added a summary table of published scientific publication and events during which the project has been represented

Executive summary

The “Communication and Dissemination Plan” is the first deliverable of Work Package 8 concerning the Communication and Dissemination Activities. The present report establishes a 3-year communication and dissemination strategy for the Human Microbiome Action project. The plan will be a living document and evaluated yearly to keep the viability of the communication strategy aligned with the project’s evolution. If needs be, the plan will be updated according to the recent changes. The overall strategy set in this document aims to build the visibility and reputation of the Human Microbiome Action project and to boost the uptake of its results by the relevant audiences. The ultimate goals are to maximise the impact and relevance of the projects’ work to stakeholders and support the vision of the project to fight the rise of non-communicable diseases and to keep Europe at the forefront of microbiome research.

This document contains the detailed scope on the project’s:

- Purpose of the communication and dissemination strategy (“Why”)
- Key target-audiences (“Who”)
- Main key-messages and communication goals (“What”)
- Communication tools and channels (“How”)
- Expected timeline for each activity (“When”)

As the leader of the WP8, EUFIC will coordinate all the communication and dissemination activities and provide guidance and support to the consortium members in any related matters. All partners will be involved in the communication and dissemination efforts and contribute to the impact and success of the project’s communication strategy. During the first reporting period, the project partners contributed to the communication and dissemination activities and the majority of the activities are in line with the KPIs. The majority of the KPIs will be reached towards the end of the project, with more project results being available. In a few cases, minor issues were registered, and corrective actions will be implemented over the next months. There are no major concerns about the achievement of the KPIs.

Introduction

Understanding the microbiome has enormous potential in public health, particularly in the prevention and treatment of many non-communicable diseases. Yet despite promising advances in microbiome research in recent years, meaningful clinical applications, lifestyle recommendations (e.g. personalised medicine and diet) and public health guidance from research outcomes are still lacking. The reasons for the shortfall in the microbiome's potential are the lack of commonly used and accepted foundational approaches within research and practice that include:

- Standardised approaches for clinical trial design and analytical standards.
- An understanding and agreement of what constitutes a healthy microbiome.
- Means of demonstrating cause and effect in altered host-microbiome interactions.
- Processes for the development and application of biomarkers.

The Human Microbiome Action has the overall goal to keep Europe at the forefront of microbiome research and innovation and maximise its impact by ensuring coherence and harmony in the way microbiome research is and will be performed. Therefore, the project will develop a range of guidance documents and recommendations for researchers, public health officials and industry stakeholders to build or provide roadmaps for necessary foundations that allow aligned microbiome research in the future. The aim is to build consensus and commitment across microbiome stakeholder groups for more meaningful research outcomes that translate into products and applications that contribute directly to improved public health in the future.

In addition to the executive summary and the present introduction, the document is organised into four other chapters. Under Objectives, the goals of the document are defined, providing an overview of its need. A specific and short chapter (Project Name) clarifies why the consortium agreed in modifying the project name contained in the Grant Agreement, proposing a different one that could be understood immediately and clearly by its target audience. The chapter on the Communication and Dissemination Strategy presents the concept behind the document, as well as the practical activities to be implemented. It is structured according to the classic elements that a communication and dissemination plan has – the purpose of activities designed (why), key audiences to be addressed (who), messages to be delivered (what), methods to apply, including activities and tools to be implemented with a portfolio of formats for reaching the different audiences, (how) and the time in which to carry them out (when). The strategy is complemented by the monitoring and evaluation procedures to assess its success and the actions needed to readdress it, based on the definition of quantitative Key Performance Indicators (KPIs).

Finally, the document is completed with annexes aiming to provide further details on specific activities implemented.

The current version of the document represents an update of the D8.1, after one year of its delivery and after 18 months from the beginning of the project. According to the results achieved so far, how they are addressing the fixed KPIs and considering the lessons learnt from the implementation of the activities, the document fine-tunes the strategy and reports about additional actions decided during the first period of the project.

Objectives

The Human Microbiome Action project communication and dissemination plan (CDP) follows the main aim of the project's communication efforts to capture the attention of multiple target audiences and engage with them in a co-creative fashion in order to accumulate active support for the Human Microbiome Action mission. The CDP sets out a strategy to maximise the impact of the project, increase its visibility, and ensure that project outputs reach a wide audience of relevant stakeholders and uptake of knowledge throughout and beyond the project's lifetime. The plan will focus on procedures, impact-effective activities and means to reach the project vision. It falls under the remit of WP8 'Exchange and dissemination' and its execution with the help of all partners is coordinated by EUFIC.

The CDP will build on the network of the Human Microbiome Action partners, the project's Steering Committee and Stakeholders Advisory Board; hence, a significant emphasis will be put on tapping into the connections and communication channels that all project and associated partners already have, through their membership base, newsletters, social media reach, etc. All partners are considered ambassadors of the project and are encouraged and expected to be involved to different degrees in communication and dissemination efforts.

Project Name

The project will be using the name 'Human Microbiome Action' for all its public-facing activities to provide more tangible information to external stakeholders from the get-go than the project abbreviation IHMCSA (International Human Microbiome Coordination and Support Action) would deliver. Hence, IHMCSA will only be used in the internal and legal communication with the EC.

Communication & Dissemination Strategy

Communication and dissemination efforts will follow the distinction of these activities as suggested by the Research Executive Agency (Fig. 1). For the purpose of outlining the CDP, we may not always clearly distinguish between communication and dissemination, as many communication activities build on dissemination efforts and depending on context different project tools, means and activities can contribute to both communication and dissemination.

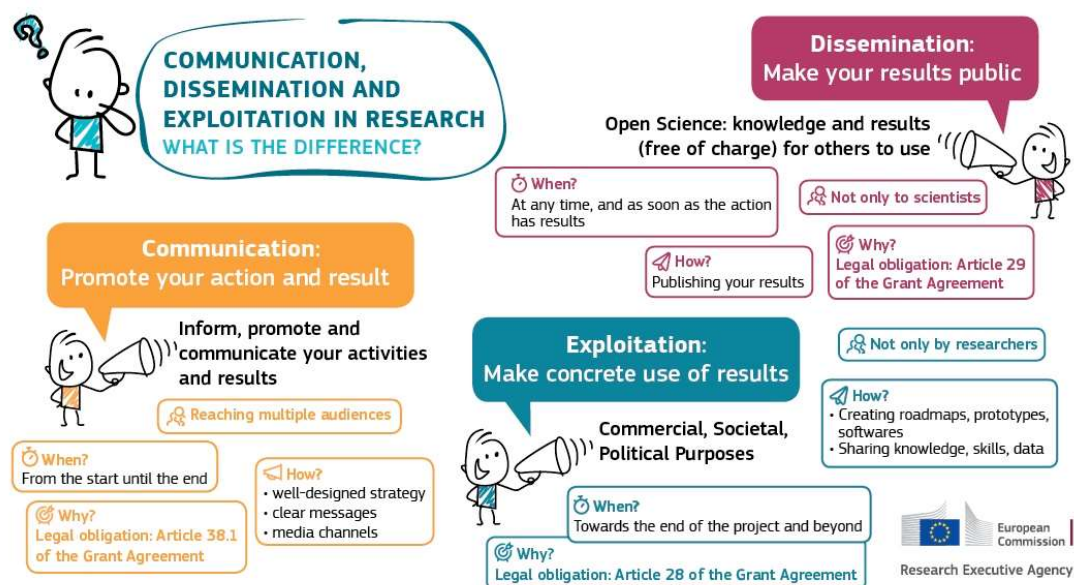


Fig. 1: Dissemination, communication and exploitation. From the European Commission's Research Executive Agency

In general, project results will be disseminated through open access publications, data made available based on FAIR principles (see data management plan, D2.3) and publicly accessible reports and guidelines on the website. Communication efforts within the project will guide external stakeholders to the disseminated source material. All material will acknowledge EU funding ("This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N°964590") and audio-visual material will include the EU emblem as well as the project logo.

The CDP follows the impact pathways for the different project outputs laid out in Annex 1 and addresses the following strategic elements for success:

- Purpose ("Why?")
- Key audiences ("Who?")
- Messages ("What?")
- Methods ("How?")
- Time ("When?")

Purpose (“Why?”)

The overall aim of Human Microbiome Action is to create broadly accepted foundations for future microbiome research and microbiome-based applications. Specifically, the purpose of communication activities will be to:

- Ensure the uptake of recommendations and guidelines for improved standards and operating guidelines in microbiome legislation and research, to achieve better comparability of results within and across projects and more meaningful data that lead to concrete and safe microbiome applications in an effective manner.
- Raise awareness of the importance of the microbiome for health and medical applications stemming from microbiome research for acceptance and implementation within decision-making processes in clinical practice and public health.

Key Audiences (“Who?”)

The Human Microbiome Action key audiences consist of a mix of subject experts and lay people and can be divided into primary and secondary audiences. The primary audience is expected to make use of project outcomes to deliver the impact for the project:

- Funding authorities that will provide infrastructure means for the European Microbiome Centres Consortium (EMCC) and decide on future microbiome research activities on national and EU level.
- Regulatory experts and policy makers which will implement procedures for legislations and policies for safe microbiome applications in clinical and public health practice (amongst others EFSA and EMA, but also national authorities).
- Editors who will implement minimum standards for microbiome research to be published in peer-reviewed journals.
- The larger scientific community (incl. clinical trial centres) which carries out microbiome research and European Research Infrastructures connected to this fields of research (e.g. ELIXIR, BBMRI, MIRRI, ECRIN, ISAPP and EATRIS).
- Reference laboratories which will adopt standards in their sampling and analytical processes.

The secondary audiences are people who are professionally and personally impacted by or interested in the advances of microbiome science and include:

- Public health deputies responsible for implementing public health policies on national levels.
- Clinicians and doctors which will use microbiome applications in practice.
- Citizens interested in health applications of microbiome science.

The aim of interacting with the secondary audiences is to manage expectations in microbiome applications and gain early adopters of new technologies and approaches within public health systems and personal health management. Impacting preventive nutrition and precision medicine of the future will come with the recognition of the 'microbial status of humans' and necessitate reliable, standardised, and reproducible techniques for rationalising prescriptions targeting the intestinal microbiota.

The following stakeholder analysis of the target audiences (Fig. 2) classifies them on a scale of Influence and Interest. This helps to manage stakeholders more closely and to identify key players that provide a high return on investment towards the project's goals. The different sections of the stakeholder mapping can be described as following:

- **High Influence & High Interest: Manage Closely**
 - Focus efforts on this group
 - Engage & consult regularly
- **High Influence & Low Interest: Keep Satisfied**
 - Engage & consult on interest area
 - Try to increase level of interest
- **Low Influence & High Interest: Keep Informed**
 - Keep informed & consult on interest area
 - Potential supporter/ambassador
- **Low Influence & Low Interest: Monitor**
 - Inform via general communication
 - Aim to increase interest

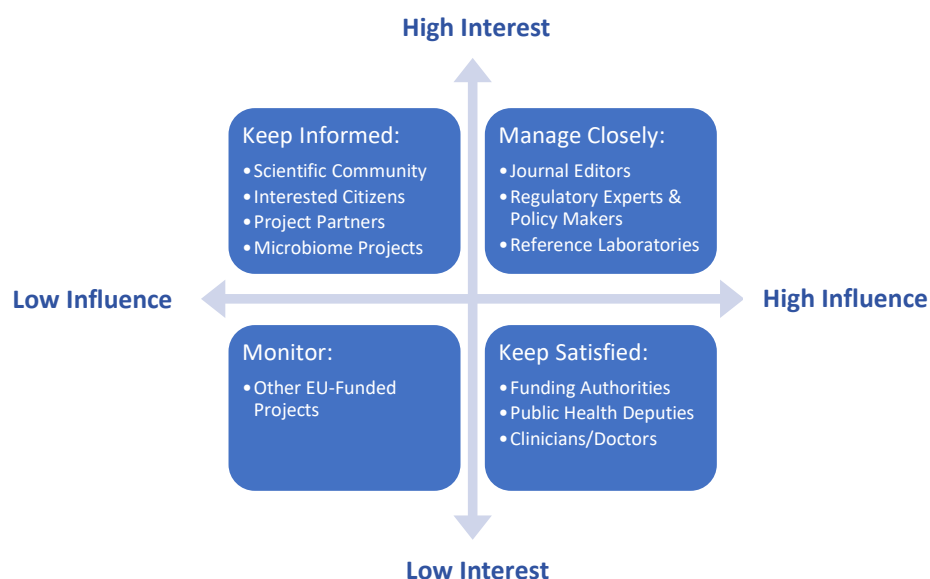


Fig. 2: Stakeholder Mapping

In order to further better understand the target audiences, WP8 facilitated a communication workshop in January 2022 open to all project partners and attended by 22 representatives. The aim of this workshop was to collect the existing knowledge within the consortium about the most relevant target audiences, to improve the effectiveness of the dissemination and communication activities to be implemented during the project lifetime. In order to achieve this, participants were involved in a persona exercise, consisting in the definition of the key messages and how to deliver them to address four fictional profiles of people working in the respective target audiences (Journal Editors, Policy Makers, Reference Laboratories, Regulatory Experts). The information out of this exercise will be used further to tailor future communication and dissemination activities to the audiences needs. Due to technical issues and time constraints, not all persona exercises were developed with the same level of details during the workshop. More information and two examples of the personas with a high amount of details are presented in Annex 7.

Messages (“What?”)

During the first phase of the project, the main Human Microbiome Action messages will be of a more general nature to build the project ‘brand’, create awareness of the project and its aims as well as generic messages around microbiomes in individual and public health (based on frequently asked questions on the web, see Annex 6), and engage the relevant stakeholders. Further, it will include a set of key messages for project promotion (Annex 2). The aim is to build a relevant audience by providing the project’s context to the specific activities within the consortium.

Once the project starts to generate outputs, the general messages will be accompanied by specific messages promoting results and other activities, still with the aim to strengthen the Human Microbiome Action brand, and ultimately to increase the impact of the project. Key messages will be extracted from all recommendations and guidelines developed in the project. These will be used to craft brief, impactful communications so creating interest for the detailed Human Microbiome Action results in relevant stakeholder groups. The respective messages that are directed towards each target audience together with the appropriated communication tools can be seen in table 1.

Table 1: Summary of the target audiences, goals and messages and communication tools. Each group builds upon the goals/messages and tools of the once underneath complements these points.

Target Audience	Goals & Messages	Communication Tool
<ul style="list-style-type: none"> Journal Editors Regulatory Experts & Policy Makers Reference Laboratories 	<ul style="list-style-type: none"> Engage into policy suggestions based on outcomes Inform about scientific progress and outlook for areas of application Inform about new methodical standards in the field of microbiome research Share progress and milestones in the scientific and technological findings Increase opportunities for discussion and input from external experts 	<ul style="list-style-type: none"> Projects network Participation in high level conferences and relevant events Specialised articles Workshops Audi-visual materials Personalised, 1:1 exchanges
<ul style="list-style-type: none"> Funding Authorities Public Health Deputies Clinicians/Doctors 	<ul style="list-style-type: none"> Use media as amplifiers for project's communication activities Raise interest in the project by providing tailored updates based on their needs Raise awareness on the impact of the project results on the public health sector Highlight events 	<ul style="list-style-type: none"> Articles in Journals Press releases Audi-visual materials Public health conferences
<ul style="list-style-type: none"> Scientific Community Interested Citizens Other EU-funded & Microbiome Projects 	<ul style="list-style-type: none"> Promote general project's mission and goals Nurture interest in the project and on the related topics Raise awareness of the broader topics sustaining the project (microbiome and its impact on health) Raise awareness and inform about the project results and key findings 	<ul style="list-style-type: none"> Project website Newsletter Social Media Audi-visual materials Final Conference

Method ("How?")

Although EUFIC will coordinate the communication and dissemination activities, working closely with the project partners will be key to ensure that the maximum outreach, hence impact, is achieved. As such, regular exchange between partners will be facilitated by EUFIC through:

- A WP management process which holds all partners accountable to providing content-input for communication and dissemination activities in a timely manner (Fig. 3, Fig. 4).
- Internal update emails to all partners to make partners aware of the progress in communication infrastructure and get them on board of communication activities that require joint actions by the whole consortium: this is foreseen monthly in the initial stages and towards the end of the project, and bi-monthly or quarterly in the mid-phases of the project.
- Building a network of communications partners in the relevant institutions, in acknowledgement that main consortium contacts are usually not responsible for communication activities within their organisations (Annex 3: Inventory of communication partners).
- Providing clear and tangible guidance on how partners can get engaged on social media and through related projects (Annex 4: Relevant social media hashtags and Twitter handles; Annex 5: List of related projects and initiatives).
- Keeping a detailed overview of communication and dissemination activities whereby partners can enter their actions themselves to ensure easy reporting during reporting periods through a communication and dissemination tracking tool on the project internal SharePoint.

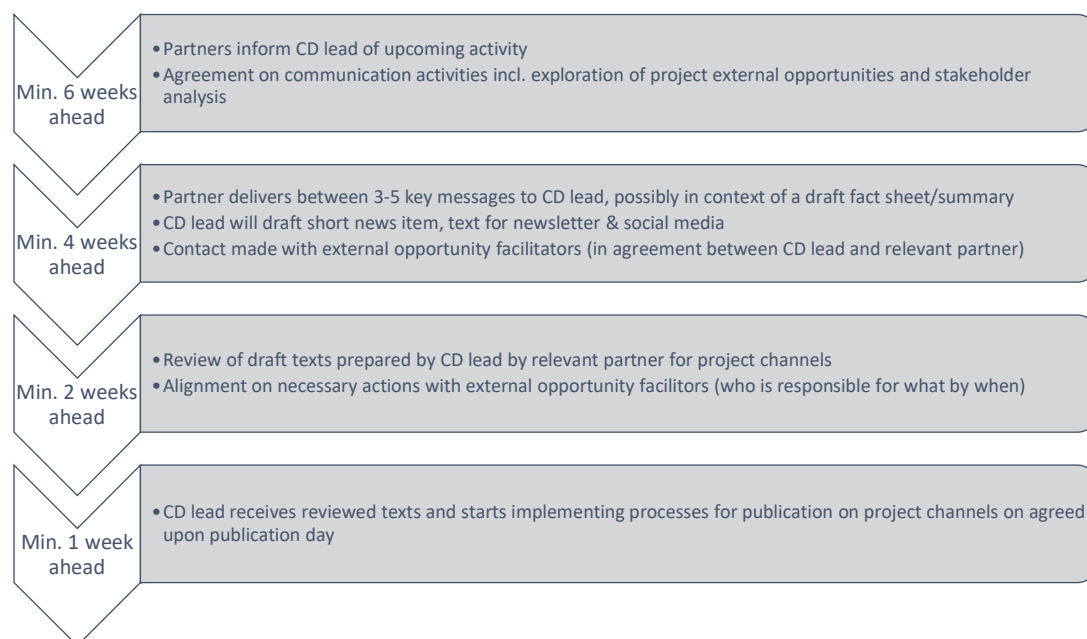


Fig. 3. Timeline for communication and dissemination planning between all research WPs and the communication WP for all major Human Microbiome Action deliverables and milestones (exception: final conference for which a timeline will be agreed upon with all partners in the ExCom by M30).

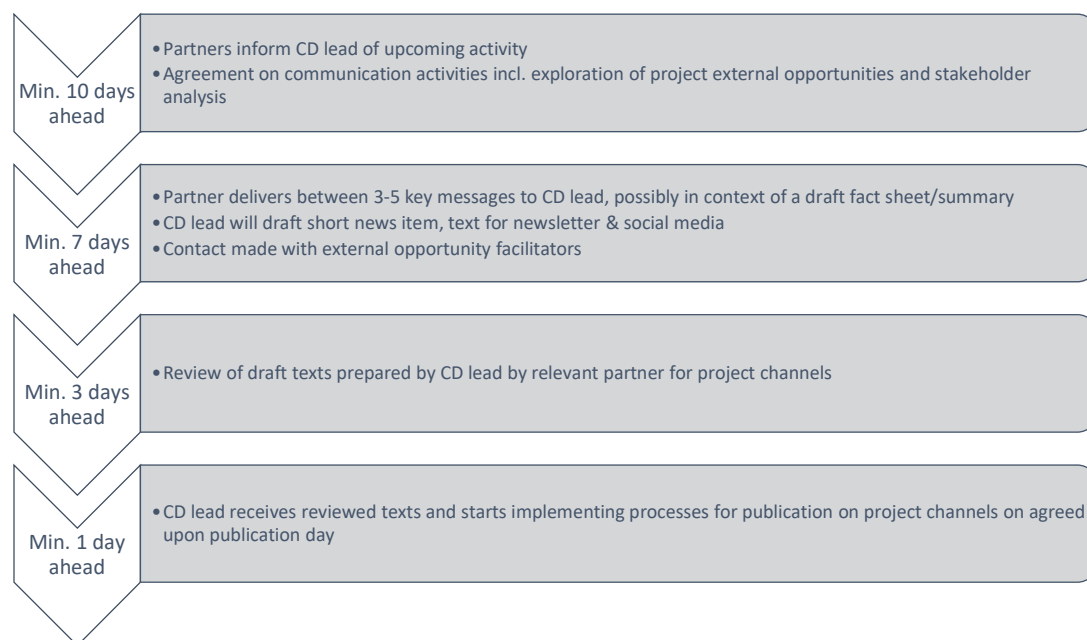


Fig. 4. Timeline for communication and dissemination planning between all research WPs and the communication WP for arising opportunities throughout the project (e.g. key note speeches, conference attendances, radio/TV interviews, writing for project-external websites; etc.).

To ensure partner's commitment to Human Microbiome Action communication and dissemination activities EUFIC will regularly hold workshop-style sessions at consortia meetings to bring partners on board. During the first reporting period, one workshop dedicated to general communication and specific target audiences was held. Further, partners will be encouraged to join the #MicrobiomeAmbassador campaign to engage partners in communication and dissemination early on (during the building of a follower-base). The #MicrobiomeAmbassador is a communication campaign initiated by the H2020-funded project MicrobiomeSupport to raise awareness of the importance on the microbiome in the food system and its impact on planetary and human health. #MicrobiomeAmbassadors declare their passion for the microbial universe publicly and Human Microbiome Action will build on and amplify the momentum which this campaign has gained. The material provided by partners will also be helpful for communication activities in the early stages of the project which is traditionally content poor.

The following materials, tools and approaches have been developed to shape the brand of the Human Microbiome Action project and will be available for all partners to increase visibility on the project's communication and dissemination efforts:

General Branding

- Distinct Brand Guidelines that include a project logo and a visual identity that is represented in relevant Microsoft Office Word and PowerPoint templates as well as Social Media templates.
- Production of a toolkit containing branded and standardised graphic materials for workshops organised by partners in different WPs. The toolkit contains visuals to be adapted case by case by EUFIC (i.e., event poster, save the date, agenda template, etc.), as well as materials that partners can immediately use or print (i.e., roll-up, indications for the workshop venue, etc.)

Online

- An attractive, user-friendly project website (<http://www.humanmicrobiomeaction.eu/>; available as of October 2021) which will be the main information resource of the project and contain details on:
 - Project aims and objectives
 - Project activities (incl. resources, publications, etc.)
 - Partners information
 - News & newsletter sign up
 - Contact details
 - Relevant social media links
- Newsletter services which will commence after the first year of the project on a bi-yearly basis.
- Social Media platforms have been chosen based on the target audiences of the project and the persona exercise conducted in January 2022.
 - Selected platforms:
 - Twitter – This platform is relevant due to its wide use within our various target audiences like policymakers, journalists, experts of the field and other publicly funded projects. Moreover, from day one the project can make use of an already established community of >26k followers through the @SciFoodHealth account. This approach was preferred to the creation of a new, project-managed Twitter account, as this would likely not have reached a similar number of followers and therefore impact.
 - LinkedIn – Initially not selected, due to the fact of an overlapping audience with the Twitter account, which at that time already included >26k followers. Following the suggestions received during the review meeting in February 2023, EUFIC re-evaluated this channel, also considering the fact that EUFIC was opening a SciFoodHealth account on LinkedIn to be used with other publicly funded projects, including projects related to the microbiome,

such as CIRCLES and DOMINO, providing the possibility to establish a significant audience in a few months. The @SciFoodHealth account will be set up and managed by EUFIC from March 2023 onwards. This channel will communicate customized messages for this platform and allow the project to improve engagement with the target audiences.

- Not selected platforms:
 - Facebook, Instagram, TikTok – These platforms have not been chosen as they are less likely to reach target audiences and submit key messages. Further, no existing account could be exploited to promote the messages for Human Microbiome Action.

Moreover, additional audiences will be reached through partner's and partner organisation's social media channels such as the Gut Microbiota for Health Twitter account (@GMFHx) and joined communication campaigns with other publicly funded projects and initiatives to raise awareness on microbiome topics, such as for the World Microbiome Day. The contents on all social media platforms can be found under the hashtag #HumanMicrobiomeAction.

- An infographic on the main project outcomes in month 35.
- A video with content to be decided based on where it is most impactful within the impact pathways within Annex 1.
- Content contributions to popular websites focused on science communication, such as Gut Microbiota for Health, or events such as World Microbiome Day.

Offline

- Press releases as news-worthy project outputs become available.
- Engagement with national and local media (print, radio, television, web-based) on request (e.g. as follow ups to press releases).
- Roll-up available from October 2021.
- EUFIC will make available to partners a general leaflet from April 2023 (both in online and printable versions).

Events

- Presentations at relevant scientific or policy conferences and events by the research partners.
- Final Conference towards the end of the project in Brussels

Collaboration with other EU-funded projects

- Human Microbiome Action will participate and engage in relevant events organised by other EU-Funded projects, such as the MicrobiomeSupport Final Conference in May 2022
- Opportunities to collaborate with other EU-Funded projects through social media will be evaluated continuously
- Human Microbiome Action encourages partners and stakeholders to participate and engage in the 'Microbiome' subgroup of the [Sustainable Food System Network](#) (SFSN). The SFSN currently connects almost 1400 members, whereof the Microbiome subgroup has 150 members. The subgroup was collaboratively developed with other EU-funded projects (MicrobiomeSupport and CIRCLES). Within the subgroups, experts share research results, events, and articles and engage the community in joint activities. Moreover, the subgroup has a monthly newsletter (in addition to the SFSN newsletter, delivered to all 1400 members, every 2 weeks), delivered to all the experts of the group, where Human Microbiome Action can promote its activities and results. This action will obviate the delays in the delivery of the Human Microbiome Action Newsletter and support its releases, through distribution to an already existing audience invested in the topic. The SFSN and the microbiome subgroup are managed by EUFIC.

Communication and dissemination via project channels (Twitter, newsletter, website) will be facilitated via EUFIC. Online communication efforts will be focused on engaging people through calls-to-action that allow for two-way communication (e.g. asking followers/newsletter readers/website visitors to comment on the material we provide and responding to them on our way of thinking, and comment/contact forms on the website).

Partners are asked to inform EUFIC about upcoming events and dissemination activities a minimum of six weeks in advance to ensure the required communication support via project channels can be provided (Fig. 3, Fig. 4).

Further, partners are asked to contribute towards communication and dissemination efforts via their own personal and institutional accounts. For key results the communication and dissemination will be aligned via timelines prepared in advance by EUFIC and relevant partners to achieve. Where possible partners will translate relevant materials into their national languages and keep EUFIC informed about their communication and dissemination plans. Importantly, EUFIC is always available for *ad hoc* support.

A concluding final conference will be organised at the end of the project to present the results to key target audiences: EC officers; opinion leaders/regulators in industry, academia, and policy; the media and the scientific community (research institutes, reference laboratories, clinical trial organisations, etc.).

Additionally, communication efforts will be amplified through proactive connections that have already been established by project partners with other microbiome networks and organisations such as the organisers of the [World Microbiome Day](#), related projects (Annex 5) and existing information platforms (ISAPP, GMfH). Finally, the project's external steering group and stakeholders advisory board will be tapped into to disseminate project messages.

Throughout the project, online media platforms will be monitored to provide information on the numbers, sources, types of content and individuals/organisations that promote or disseminate project messages, allowing optimisation and targeting of communication to ensure maximum outreach of news or results.

The first reporting period also represented a test of the proposed methods for conducting the dissemination and communication activities, as well as of the internal communication procedures. In particular, some possible improvements were observed in how the activities implemented by each partner are conducted, in order to guarantee that they are constantly updated (also to monitor the achievement of the fixed KPIs) and that partners correctly use the internal reporting system. With this in mind, EUFIC sent occasional e-mail reminders to partners asking to update the online spreadsheet on SharePoint, explained how to do it during the annual meeting and online meetings, created an internal FAQ document (shared with the whole consortium) on how to use the internal reporting activities and, finally, expressed availability to support partners and provide clarifications. The process will be tested again during the next months (M18-M24) and, if needed, further actions will be taken.

Time (“When?”)

EUFIC will coordinate the project dissemination by providing updates on the project’s website, send newsletters, present a regular social media presence, etc. once the project online presence has been established (November 2021 onwards). EUFIC will play a proactive role in checking with partners for updates and news, thus ensuring the regularity of the flow of information through internal mailings (incl. progress updates and news from partners, filling in communication spreadsheets, internal update email on communication progress). Contents resulting from project outcomes and other activities will be published online as they become available (with internal alignment between relevant partners and the communication lead several weeks in advance to ensure coherency of dissemination and communication efforts), as well as presented at conferences and events that serve the microbiome community at large. At an early stage, when outputs are not yet available, EUFIC will actively seek for ‘hooks’ to promote the project, e.g. by communicating on microbiome research outputs in general, responding to questions of microbiome interested citizens (using commonly asked questions on the internet, Annex 6), or take advantage of specific external events (e.g. world days). Table 2 displays an overview of the suggested timeline for the respective communication tools.

Table 2: Overview of the availability of communication tools, target groups, expected impact and timeline

Communication Tool	Target Group	Short/Long Term Impact	Timeline
Project corporate identity and logo	All target groups	Promote the project recognition and visibility	May-October 2021
Communication & Dissemination Plan	All target groups	Thorough strategy and monitoring for all communication activities	October 2021
Project website	All target groups	<ul style="list-style-type: none">• Raise awareness of the project• Educate on the broader topics of the project• Keep interest in the project	October 2021
Social Media Templates	<ul style="list-style-type: none">• Scientific Community• Funding Authorities• Regulatory Experts & Policy Makers		October 2021
Social Media (via @SciFoodHealth)			November 2021 onwards (ideally one post per week)
Roll-Ups			October 2021
Newsletter			May 2022 onwards – 2/year
Sustainable Food Systems Network (SFSN) & Microbiome Subgroup	<ul style="list-style-type: none">• Scientific Community• Regulatory Experts & Policy Makers• Clinicians/doctors• Other EU-funded projects	<ul style="list-style-type: none">• Raise awareness of the project• Educate on the broader topics of the project• Keep interest in the project	June 2022 onwards – publication of news from the project, as well as the promotion of the IHMCSA newsletter (including call for subscribers) in the SFSN newsletter and in the microbiome subgroup

Toolkit of supporting visual materials for partner workshops	<ul style="list-style-type: none"> • Project partners • Scientific community • Public health deputies • Funding authorities • Regulatory experts • Reference laboratories 	<ul style="list-style-type: none"> • Promote the project brand • Support the partners messages with appealing visuals 	August 2022 with individual adaptations for each workshop
Leaflet/Bookmark	All target audiences	<ul style="list-style-type: none"> • Promote the project brand and visibility • Raise awareness in the project • Educate on the broader topics of the project 	April 2023
Sustainability Plan and Toolbox	<ul style="list-style-type: none"> • Project partners 	<ul style="list-style-type: none"> • Ensure a long-term impact of the developed communication materials 	November 2023
Infographic	All target groups	<ul style="list-style-type: none"> • Disseminate project results • Drive traffic to website • Raise awareness of the project 	March/April 2024
Video			
Scientific papers, guidelines etc.	<ul style="list-style-type: none"> • Clinicians/Doctors • Public Health Deputies • Funding authorities • Regulatory experts • Reference laboratories 	<ul style="list-style-type: none"> • Build on existing science • Promote uptake of results with target audiences 	In alignment with partners / when opportunity arises
Press releases	All target audiences	<ul style="list-style-type: none"> • Raise awareness of the project 	
Media articles		<ul style="list-style-type: none"> • Highlight key project results 	
Final conference	All target groups	<ul style="list-style-type: none"> • Disseminate project results 	March/April 2024

Monitoring & Evaluation

To measure the success of the beforementioned communication efforts, EUFIC will generally keep track on the communication & dissemination activities that will be performed by all project partners via the already mentioned communication and dissemination tracking sheet. This monitoring is primarily directed towards the general aims of the communication and dissemination plan.

Moreover, specific key performance indicators (KPI) have been developed for certain communication activities (Table 3). These KPIs will be assessed frequently, and measures will be taken to ensure the long-term success of the communication and dissemination efforts.

Additionally, metrics for the social media activities (including posts from the @SciFoodHealth channel, and posts with the hashtag #HumanMicrobiomeAction) will be gathered to indicate the reach of the project. These metrics include the impressions and engagements for the relevant posts.

The execution of the communication and dissemination plan will be evaluated frequently and adjusted to the needs of the respective situation. During the first reporting period, some adjustments have been made according to the development of the project, in order to improve the efficiency of the monitoring of the outreach and impact generated by the project. Changes made are highlighted in the table below by color-coding.

Table 3: Success metrics for communication and dissemination (Text in orange represents the update in November 2022)

Communication Tool	Indicator	Target	Verification	Status	Action
Social Media Templates	Distribution of templates / Impressions	Template used by 75% of partners / Over 5000 impressions by the end of M36	Tracking spreadsheet: input from partners	Limited engagement of partners with social media templates	Contact with communication departments planned; reminding partners via bi-monthly e-mail
Posters/Roll-up	N. of designs / Number of events the designs have been used ¹	+2 / 10 events by the end of M36 ¹	Presented at events	2 posters & 1 roll-up/2 events	Activity on track: No corrective actions needed
Talks	N. of talks (i.e. from conferences or workshops)	15	Tracking spreadsheet: input from partners	30 talks (21 conferences, 1 workshop, 8 other)	Activity on track: No corrective actions needed
Videos	N. of videos / views per video	2 videos with 1k online views per video	Tracking spreadsheet: input from partners	2 video/178 views	Video released on partners initiative; collaborative communication effort will be established for future videos i.e. from participation in events and talks given by partners over the project lifetime
Project website	N. of visits + page visits	1000 visitors + 25000 page views	Web traffic statistics collected Google Analytics;	1500 visitors / 4476 page views	Activity on track: No corrective actions needed
Social Media	N. of Tweets with project specific hashtag (incl. Impressions and	150+ project specific Tweets via @SciFoodHealth	Twitter Analytics	45 Tweets via @SciFoodHealth / 93322 Impressions	Activity on track: No corrective actions needed

¹ Change of indicator due to increasing number of on-site events

	engagement statistic of social media posts)			& 2938 Engagements	
Participation to events	N. of events attended	30	Tracking spreadsheet: input from partners	25 events (22 conferences, 2 workshop, 1 other)	Activity on track: No corrective actions needed
Newsletters	N. of newsletters per year and subscribers	2 per year / 1000 subscribers by M36	Newsletters distributed and published via the project website; N. of subscriber retrieved through statistics in Mailchimp	0 newsletter published / 85 subscribers	Delay in first newsletter, possibilities to expand newsletter reach will be as well as new newsletter feature via the SciFoodHealth Twitter Account will be examined. Moreover, the project newsletter will be promoted in the SFSN newsletter (>1400 recipients) and in the microbiome subgroup (>150 members), to increase the number of subscribers. Finally, news from the project will be integrated in the two mentioned newsletters, that are distributed respectively every 2 weeks and every month.

Press release	Media predicted online reach	>25 million potential reach – number of people that can potentially read the article, based on the estimation of a tracking software (Meltwater)	Meltwater tracking software ²	Current potential reach: 23686	Activity on track: Project is at the beginning with limited press outreach at this stage. Further press outreach and articles is expected in the coming reporting period and opportunities will be examined
Visual materials	N. of designs	2+	Availability for partners on internal SharePoint	3 social media templates, 1 workshop agenda, 5 Backgrounds for i.e. Zoom	Activity on track: No corrective actions needed
Media	N. of non-scientific journal news	10+	Tracking spreadsheet: input from partners & Carma tracking software ²	1 article in media outlet, 0 articles in non-scientific journals	Activity on track: No corrective actions needed. Project is at the beginning with limited press outreach at this stage. Further publications in the Project Repository Journal or other magazines are expected in the next reporting period and opportunities will be examined

² Meltwater is a software that allows to monitor how many people were reached by the press releases, lay articles, news, etc. published online by partners, stakeholders, newspapers etc.

Scientific publications/white & opinion papers	N. of conference papers and journal articles	10+ Conference papers and journal articles	Tracking spreadsheet: input from partners	3 articles in scientific journals	Activity on track: No corrective actions needed
Guidelines & recommendations	N. of guidelines & recommendations	5+ guidelines and recommendations	Activity report	Too early to be evaluated	-
Project factsheets	N. of factsheets	10 (one for each major project outcome)	Activity report	Too early to be evaluated	-
Final conference	Average N. of participants / N. of speakers	At least 120 participants / At least 7 speaker	Online social media and website communication / N. of registrations	Too early to be evaluated	-

During the first reporting period, the project partners contributed to the communication and dissemination activities and the majority of the activities are in line with the KPIs. Some KPIs will be reached towards the end of the project when more results will become available. In a few cases, minor issues were registered, and corrective actions will be implemented over the next months. There are no major concerns about the achievement of the KPIs. In any case, EUFIC will keep tracking and assessing the results achieved under each KPI, in order to fine-tune and improve the strategy. The next update of the plan is foreseen for November 2023 (M31). An overview of all published scientific articles (see table 4) as well as an overview of previous and planned events during which the Human Microbiome Action project has been or will be represented by partners (see table 5) can be seen underneath.

Table 4: Summary on published scientific articles

Date (Published)	Title	Journal	DOI
21.02.2022	Microbiome risk profiles as biomarkers for inflammatory and metabolic disorders	Nature Gastroenterology & Hepatology	10.1038/s41575-022-00581-2
21.03.2022	Editorial: Portal Hypertension in Cirrhosis: From Pathogenesis to Novel Treatments	Frontiers in Physiology	10.3389/fphys.2022.864083
27.05.2022	“Love is a microbe too”: Microbiome dialectics	Endeavour	10.1016/j.endeavour.2022.100816
23.06.2022	Targeted decrease of portal hepatic pressure gradient improves ascites control after TIPS	Hepatology	10.1002/hep.32676
22.08.2022	Janus kinase 2 inhibition by pacritinib as potential therapeutic target for liver fibrosis	Hepatology	10.1002/hep.32746
18.01.2023	The person-to-person transmission landscape of the gut and oral microbiomes	Nature	10.1038/s41586-022-05620-1
31.01.2023	The non-selective Rho-kinase inhibitors Y-27632 and Y-33075 decrease contraction but increase	PLOS ONE	10.1371/journal.pone.0270288

	migration in murine and human hepatic stellate cells		
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Table 5: Summary of events with representation of Human Microbiome Action

Nr.	Event (Date)	Attendees	Target Groups
1	IX International Human Microbiome Consortium meeting (June 2021)	500	Scientific Community
2	Asian Digestive Disease Week (August 2021)	1200	Scientific Community
3	Closure Meeting of University Hospital Network RHU LUMIERE (10/09/2021)	48	Scientific Community, Industry, Policy Makers, Investors
4	Presentation at Pre-Pro-New Foods ROME meeting (12/09/2021)	275	Scientific Community, Industry, Policy Makers, Media, Investors
5	9th Microbiome R&D and Business Collaboration Forum: Europe (26/10/2021)	15	Scientific Community, Industry
6	AGGEI meeting young scientist Interactions Between Diet (November 2021)	290	Scientific Community
7	Translational Research Group Yale University	110	Scientific Community
8	Conference Pole Pharma ROUEN (04/11/2021)	61	Scientific Community, Industry, Policy Makers, Media, Investors
9	ANPA Presidential Presentation (March 2022)	200	Scientific Community
10	Autism Research Institute (April 2022)	350	Scientific Community
11	Autism Research Coalition (April 2022)	450	Scientific Community
12	The American Academy of Anti-Aging Medicine (April 2022)	180	Scientific Community
13	Invited Seminar at the University of Pennsylvania (06/04/2022)	200	Scientific Community
14	Pharmabiotics 2022 Conference (20/04/2022)	135	Scientific Community, Industry, Media, Investors
15	Presentation at World of Microbiome (28/04/2022)	2020	Scientific Community, Industry, Policy Makers
16	Bromatech webinar - celiac disease and the microbiota (June 2022)	390	Scientific Community
17	Sanofi International Pediatrics Forum: Microbiota and its relationship with the CNS (June 2022)	800	Scientific Community
18	Participation in a Panel at the Conference for the European Association for the Social Studies of Science (EASST 2022) (06/06/2022)	200	Scientific Community
19	MICROBIOME SIGNATURE PROJECT: PROJECT OUTCOMES AND FUTURE OUTLOOK (07/06/2022)	110	Scientific Community, Industry, Investors

20	ONE Europe Conference (21/06/2022)	570	Scientific Community, Industry, Policy Makers
21	Invited remote talk at the "8th International Human Microbiome Consortium Congress" (27/06/2022)	200	Scientific Community, Industry
22	Presentation at MicrobiomeSupport Final Conference (28/06/2022)	76	Scientific Community, Industry, Policy Makers
23	Presentation at Holobiont 2022 (28/07/2022)	210	Scientific Community, Industry
24	Pedialab Meeting (September 2022)	130	Scientific Community
25	V CONGRESSO NAZIONALE SIPNEI (September 2022)	750	Scientific Community
26	Presentation at ESMO Paris 2022 (09/09/2022)	500	Scientific Community
27	Révélation Paris 2022 (21/09/2022)	350	General Public
28	Presentation at ITOC Munich 2022 (22/09/2022)	150	Scientific Community
29	Presentation at InCIT Nantes 2022 (26/09/2022)	100	Scientific Community
30	Presentation at CICON New York 2022 (28/09/2022)	250	Scientific Community
31	International Celiac Disease Symposium (October 2022)	250	Scientific Community
32	WP4 Workshop – Defining a healthy Microbiome: Microbial Functions and Virome (06/10/2022)	50	Scientific Community
33	Presentation at SynBioDay 2022 (13/10/2022)	145	Scientific Community, Industry, Policy Makers, Investors
34	Invited remote talk at the "SEMM Technological Roundtable" (22/10/2022)	150	Scientific Community
35	Invited remote keynote talk at the "6th Brazilian Student Council Symposium: Omics and Data Science" (25/10/2022)	100	Scientific Community
36	Presentation at Cell Symposia Hallmarks of cancer 2022 (30/10/2022)	500	Scientific Community
37	UPAINUNuC meeting on Inflammaging (November 2022)	190	Scientific Community
38	Solgar meeting on Nutrition and health (November 2022)	290	Scientific Community
39	Italian Gastroenterology 2022 Meeting (November 2022)	350	Scientific Community
40	Presentation at MELISSA 2022 (08/11/2022)	580	Scientific Community, Industry, Policy Makers, Investors
41	PRI OMICS Task group meeting (30/11/2022)	26	Scientific Community, Industry
42	Internal meeting SoHO team (EC) and national competent authorities on Tissues and Cells (07/02/2023)	30	Policy Makers
Planned Events			
1	Workshop on self-assessment tools (07/03/2023)	18	Scientific Community, Industry
2	Workshop – Metadata-SOP (22/05/2023)	30-40	Scientific Community

	2nd expert workshop on preclinical models in microbiome research (01/06/2023)	20-30	Scientific Community
3	Microbial functions consensus meeting (August 2023)	30-40	Scientific Community
4	Minimal data type standards and requirements for interoperability, and on model organisms and communities (19/09/2023)	30	Scientific Community
5	Workshop on microbiome analysis types (19/09/2023)	30	Scientific Community

Annexes

Annex 1: Human Microbiome Action Impact Pathways

Impact pathways for all public deliverables in WPs 1-8, relevant milestones, and outreach activities. News items on the website, social media activities, factsheets with key messages for each outcome and stratified for target audience, as well as newsletter services will be implemented as basic outreach activities and is not considered within the context of the individual impact pathways. EMCC = European Microbiome Centre Consortium.

Due to GDPR privacy concerns, parts of this Annex had to be removed for the public version of this Document.

All data is internally available for the project partners.

Table 4: Human Microbiome Action Impact Pathways (Text in orange represents the update in November 2022)

Project Output	Communication/dissemination action	Timeline	Outcome (or impact indicators)	Expected impact
Usually product, service, know-how, recommendations, etc. Mostly linked to deliverables and milestones but can be separate.	Can be implemented and measured during the project lifetime by automated or personal monitoring.		The uptake and use of tech/knowledge/know-how from external stakeholders and organisations towards the end and 2-5 years after the project. Can (mostly) be measured through personal connections or because you continue working on something with specific networks.	As in call text & proposal. If you feel the wrong impact has been linked with a given deliverable, please correct (but continue using the <u>call text</u> and do not make up your own impact).
Report on the Delphi consultation: Questionnaire & analysis of the consultation answers (D5.1)	<p>Personalised email with link to the paper or communication piece on website OR targeted approach to representatives of relevant organisations at scientific and industry conferences by:</p> <ul style="list-style-type: none"> • Mouse model service providers. • Journal editors on the SCC. • All partners on editorial boards and/or with colleagues on editorial boards. <p>Inclusion into the founding agreements for and guidance documents by the EMCC.</p>	April 2023 (M24)	<ul style="list-style-type: none"> • Mouse model service providers provide newer models. • Editors demand quality standards recommended by Human Microbiome Action for microbiome science papers. • EMCC uses and implements EU wide standards routinely. • EMCC to work with regulatory bodies to improve regulation. • Regulation changes to request newer models in regulatory approaches. 	International agreement on concrete methods, standards, procedures, and in vivo models.

			<ul style="list-style-type: none"> Publications deliver high-quality data that are comparable between labs and experiments worldwide. 	
Ethical & policy issues in microbiome research and symbiosis monitoring (D7.1)	xxx	April 2023 (M24)	xxx	Improved coherence and reduction of overlap between national, EU and other funding in the area of human microbiome research, thus ensuring an efficient use of the available human and financial resources.
Report proposing initiatives for unified repositories for processed data (D3.2)	xxx	October 2023 (M30)	<ul style="list-style-type: none"> Existing EU and intern. repositories (e.g. ENA) put roadmap in report into action 	More meaningful results through collaborative synergistic collection of microbiome data from different directions. Improved coherence and reduction of overlap between

				national, EU and other funding in the area of human microbiome research, thus ensuring an efficient use of the available human and financial resources.
White paper & recommendations on the human microbiome addressing gaps, emerging fields, and political priorities (D4.3)	<p>UCC will invite to the microbial functions workshop representatives from and inform participants of final white paper after in personal email:</p> <ul style="list-style-type: none"> • xxx <p>Attendance of events/conferences beyond microbiome science:</p> <ul style="list-style-type: none"> • Attendance of World Health Assembly in Geneva (CH, annual event) <p>Personalised emails to SCC, editors that consortium partners know and societies like FEMS, UEGA, Nutrition/Gastroenterology/Microbiology/Respiratory Disease societies.</p> <p>Inclusion into the founding agreements for and guidance documents by the EMCC.</p>	October 2023 (M30)	<ul style="list-style-type: none"> • Policy makers adapt public health policy to include microbiome-based applications and approaches • Funding bodies adapt research agendas and funding rules for microbiome science • Regulators (EFSA, EMA, EU nat. public health authorities) become aware of how current regulation/legislation is a barrier/hurdle to innovative microbiome use AND why health claims are not possible on the microbiome (under current law) 	Integration of metagenomics and human microbiome references into other multilateral co-operation areas or personalised medicine approaches.

			<ul style="list-style-type: none"> • Editorial boards have increased understanding of microbiome potential and know what aspects within the topic to look out for to increase the impact of the field • Medical professionals and clinicians adopt new microbiome interventions in health management of patients • EMCC will implement project guidelines and recommendations for other EU microbiome activities to follow • Regulators, clinicians, scientists & industry recognise and apply the reference healthy microbiome concept as a means to improve health monitoring and innovations in preventive nutrition and personalized therapies 	
Consensus opinion paper (submission) on preclinical models	Personalised email with link to the paper or communication piece on website OR targeted approach at relevant networking events by: <ul style="list-style-type: none"> • Mouse model service providers. 	October 2023 (M30)	<ul style="list-style-type: none"> • Mouse model service providers provide newer models. 	International agreement on concrete methods, standards,

for microbiome research with focus on causality (D5.2)	<ul style="list-style-type: none"> Journal editors on the SCC. All partners on editorial boards and/or with colleagues on editorial boards. Safety Pharmacological Societies <p>Inclusion into the founding agreements for and guidance documents by the EMCC.</p>		<ul style="list-style-type: none"> Editors demand quality standards developed by Human Microbiome Action for microbiome science papers. EMCC uses and implements EU wide standards routinely. EMCC to work with regulatory bodies to improve regulation. Regulation changes to request newer models in regulatory approaches. High-quality data that are comparable between labs and experiments worldwide. 	procedures and in vivo models.
Consensus opinion paper on new approaches for intervention studies (D5.3)	<p>UP will invite to the intervention studies and core outcomes workshop representatives from and inform participants of final opinion paper after in personal email:</p> <ul style="list-style-type: none"> xxx <p>Personalised email with link to the paper or communication piece on website OR targeted approach at relevant networking events:</p> <ul style="list-style-type: none"> National regulation bodies (ANSM (FR), BfArM (GER) and others) 	October 2023 (M30)	Regulators (1) adjust their ethics approval processes and (2) learn that microbiome science does not always providing a clear black/white picture, which will be represented in adjusted regulation processes on national and EU levels.	International agreement on concrete methods, standards, procedures and in vivo models.
Position paper on biomarker identification, pre-	Workshop (MS12) participants include microbiome biomarker scientists, regulatory bodies and journal editors.	October 2023 (M30)	<ul style="list-style-type: none"> Medical academies (e.g. Academies of Science, Academies of Medicine) 	Validated results will be delivered faster to people.

<p>analytical & analytical validation (D6.2)</p>	<p>Further, personalised email with link to the paper or communication piece on website:</p> <ul style="list-style-type: none"> • Medical academies and laboratories (FEAM; IAP) • Associations or federations like the European Federation of Clinical Chemistry. 		<p>and laboratories implement new standards in their analyses</p> <ul style="list-style-type: none"> • Editors demand and recognize higher standards for microbiome science papers • Regulators to ensure biomarkers are approved for use • Integration of metagenomics and human microbiome references into other multilateral cooperation areas or personalized medicine approaches • Implementation of microbiome-based biomarkers in medical biology laboratories (which are these? Do you have examples?) • Acceptance by European Commission and national notified bodies for regulatory, evidence-based policy and funding purposes 	<p>International agreement on definitive references of healthy human metagenomes. These references should apply across various different populations and allow end-users and citizens to see which microbiome is clinically healthy.</p>
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			<ul style="list-style-type: none"> • Development of microbiome EQA schemes by EC and member states 	
Report on endpoint metadata (D2.1)	xxx	November 2023 (M31)	<ul style="list-style-type: none"> • Clinicians know how to interpret human microbiome data for health diagnostics and monitoring. • Experimental scientists understand and apply quality standards in data collection and analysis. 	Harmonisation and increased comparability of metagenomics, metabolomics, and human microbiome data in Europe and beyond.
Report on recommendations for microbiome analysis standards (D3.1)	<p>UNITN will invite to the consensus-building workshop (MS27) representatives from and inform once report is ready through personal email:</p> <ul style="list-style-type: none"> • Analysis pipeline developers • 'Benchmarkers' such as CAMI • Reference laboratories: <ul style="list-style-type: none"> ○ Microbiome Program at NIST ○ Multi-Omics Standards Alliance (IMMSA) 	December 2023 (M32)	<ul style="list-style-type: none"> • Opinion leaders openly support such standards and are early adopters of these in their own research • Large scale microbiome initiative representatives include standards within their own guidance documents • Analysis pipeline developers that implement the standards in their work • Experimental scientists understand and apply quality standards in data collection and analysis. 	Harmonisation and increased comparability of metagenomics, metabolomics and human microbiome data in Europe and beyond.

Report on clinical endpoints metadata (D1.2)	Scientific paper to be shared with ASPEN, ESPEN and the Brazilian Federation of Gastroenterology by personalised email.	April 2024 (M36)	<ul style="list-style-type: none"> • ISO technical committee 2.76 adopts standards • Clinical trial providers use Human Microbiome Action clinical endpoints metadata in trials • Number of registered microbiome-related clinical trials that will include our clinical endpoint metadata • Over 5 yearly quotes of IHMCSA standards and SOPs in scientific publications • International consensus meeting to agree on the standards and SOPs emanating from the project that can become official/certified standards 	Harmonisation and increased comparability of metagenomics, metabolomics and human microbiome data in Europe and beyond.
Report on interoperability (D2.2)	Journal editors on the SCC Workshop (MS16) participants	April 2024 (M36)	<ul style="list-style-type: none"> • Analysis pipeline developers that implement the standards in their work • Experimental scientists understand and apply quality standards in data collection and analysis • Repositories and bio-banks set up analysis 	Harmonisation and increased comparability of metagenomics, metabolomics and human microbiome data in Europe and beyond.

			infrastructures for optimal interoperability	
Policies and regulations for self-management tools (D7.3)	xxx	April 2024 (M36)	xxx	International agreement on definitive references of healthy human metagenomes. These references should apply across various different populations and allow end-users and citizens to see which microbiome is clinically healthy.
Roadmap proposal for a European Microbiome Dedicated Surveillance Network (D7.4)	xxx	April 2024 (M36)	xxx	International agreement on definitive references of healthy human metagenomes. These references should apply across various different populations and allow end-users and citizens to see which microbiome is clinically healthy.

<p>Activities within WP8 incl. (but not limited to) Communication and Dissemination Plan (D8.1); Sustainability plan incl. toolbox (D8.2); Report on the highlights of communication and dissemination efforts with KPI indicators (D8.3)</p>	<ul style="list-style-type: none"> • EUFIC to align pro-actively with partners in context of the current dissemination and communication strategy (see Section 1 of this document) • Collaboration with World Microbiome Day, International Micro-organism Day, Gut Microbiota for Health, etc., to reach secondary audiences for exchange • Attendance of relevant scientific, industry and policy events by consortium partners 	<p>Continuous M6-36</p>		<p>Knowledge exchange and enhanced engagement of citizens, scientists and political stakeholders for priority health risks.</p>
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Annex 2: Project Key Messages

- Human Microbiome Action aims to improve microbiome research methods for a better understanding of how to make use of what we know about the microbiome in day-to-day health management.
- Human Microbiome Action defines a reference for a healthy human microbiome and shapes the understanding of how it is altered and/or maintained.
- Human Microbiome Action raises awareness of the importance of the microbiome for public health policy, personalised health management and medical applications.
- Human Microbiome Action researchers collaborate to pave the way for microbiome biomarkers towards a clinical approach on detecting common diseases.
- Human Microbiome Action sets new standards in the microbiome field to advance international comparability of methods and findings for further innovations and promotes their uptake.
- Human Microbiome Action sets minimum research standards in microbiome science and proposes strategies to improve clinical trial design.
- Human Microbiome Action provides guidance for funding bodies for improved microbiome R&I strategies.

Annex 3: Inventory of Project Partners' Communication Tools & Channels

Due to GDPR privacy concerns, parts of this Annex had to be removed for the public version of this Document.

All data is internally available for the project partners.

Table 5: Inventory of Project Partners' Communication Tools & Channels (non-exhaustive and includes only those partners who expressly stated their permission to be included)

Partner	Communications responsible (incl. email address)	Partner Newsletter (Y/N) & frequency	Recurrent deadline/when to contact?	Social media hashtags	Social media handles	Relevant recurrent/upcoming events?
MetaGenoPolis-INRAE	[xxx]	Yes (1/3 months)	-	-	@MgplsLab (+LinkedIn and Facebook)	June - MetaGenoPolis French microbiome day
PRI	[xxx]	No	-	-	LinkedIn	Pharmabiotics Conference & Partnering
LNS	[xxx]	No	-	-	-	-

UCC	[xxx]	Yes (quarterly)	Ad hoc	#BelieveinScience #MicrobiomeIreland	@Pharmabiotic	National Science Week (November)
GMfH	[xxx]	Yes	TBD	#GMFH10years	@GMFHx @Food4Gut_Health @GutMicrobiotaWW	-

Annex 4: Social Media Opportunity

Table 6: Relevant hashtags for the project: use primary hashtag at all times, and others depending on tweet content.

#HumanMicrobiomeAction (primary hashtag)	#EUandMyFood
#Microbiomes4Life	#Science4Policy
#MicrobeMonday	#ResearchImpactEU
#WorldMicrobiomeDay	#guthealth
#MicrobiomeAmbassador	#microbiota
#microbiome	#probiotics
#microbes	#BelieveInScience
#EUHealthResearch	

Table 7: Twitter handles (non-exhaustive and includes only those partners who expressly stated their permission to be included); (Text in orange represents the update in November 2022)

Related projects	Institutions and networks (related)	Partners and related organisations/accounts	Others
@MicrobiomeEU @SciFoodHealth (includes #CIRCLESEU) @MASTER_IA_H2020 @HoloFood_EU @SIMBAproject_EU @MicrobPredict @MyNewGut	@EUScienceInnov @Food_EU @CSIC @IBG2Plant @EMPHASIS_EU @CABI_Microbe @JPI_HDHL @Europarl_EN	@EUFIC @LoyTeam @pauldcotter @SessitschAngela @BettinaSchelkle @trevorcharles @M_Ryan_Microbe @dorejoel	@ISAPPScience @ICPerMed @gacd_media @AMICImicrobiome @WmicrobiomeDay @UCDMicrobiome @Pmicrobiome @GMFHx

<p>@OneHealthNews @hmpdacc @Stance4Health @MicafricaP</p>	<p>@EP_ScienceTech @INRA_mica @UniBarcelona @EITHealth @EITFood @MicrobioBel @MicrobioSoc @All_Microbiomes @HorizonEU @MicrobiomeData @esnm_eu</p>	<p>@INRAE_France @MgpsLab @GustaveRoussy @Metabolcenter @LNS_Lux @CIBIO_UniTrento @Pharmabiotic @INRAE_Intl @EMBLHeidelberg @Metabolcenter @PRI_Microbiome @INRAE_DPT_MICA @UCPH_health @embl @BorkLab @erasmusuni @FLASH_OUH @TU_Muenchen @ef_clif</p>	<p>@ProfWhelan @TheGutHealthDoc @bykriscampbell @MicrobiomeTimes @GuusRoeselers @Food4Gut_Health @SylvieBinda @IP_Association @joyfulmicrobe @MostlyMicrobes @Bacterialworld @IntMicroDay @GutMicrobiotaWW @FEMSmicro @MicrObesity</p>
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Annex 5: List of Related Projects and Initiatives

Due to GDPR privacy concerns, parts of this Annex had to be removed for the public version of this Document.

All data is internally available for the project partners.

Table 8: List of relevant projects and initiatives

Projects and Initiatives	Link with IHMCSA (Partner or Member of SAB or SSC)	Input to IHMCSA
EUROPEAN		
MicrobiomeSupport CSA, H2020, 2019-2022	INRAE (co-coord.), PRI, UCC, EUFIC, EMBL and IHMCSA SAB	Standards and SOPs. Synergy for dissemination activities notably towards policy makers.
GEMMA, Multi-omics research in autism, H2020, 2019-2023	EBRIS (coord.), UP, INRAE	Contribution & coordination of work on databases, and design of clinical trials. Dissemination relays & providers of success stories.
ONCOBIOME, Gut microbiome signatures associated with cancer, H2020, 2019-2023	IGR (coord.), UNITN	
MICROB-PREDICT, Microbiome based biomarkers in liver cirrhosis, H2020, 2019-2025	EF-CLIF (coord.), INRAE	
EARLY-CAUSE, Effects of early life stress on health, H2020, 2020-2023	IHMCSA SAB (CSIC)	Experts for IHMCSA work notably on Artificial Intelligence. Dissemination & provider of success stories.
JPI HDHL-INTIMIC, INtesTinal MICrobiomics, H2020, 2016-2022	INRAE, IHMCSA SSC	Standards and SOPs. Expertise in Knowledge hubs & platform allowing translational projects & priority alignments.
GALAXY Gut liver axis in liver fibrosis, H2020, 2016-22	TUM, EMBL, OUH	Standards, best practices and clinical practices.
MyNewGut, Dietary strategies to improve the long-term health, FP7, 2013-2018	EUFIC, TUM, UCC, INRAE, IHMCSA SAB (CSIC)	Experts for IHMCSA work on SRIA & provider of success stories.
ML4Microbiome, Statistical & machine learning techniques in human microbiome studies. H2020, COST Action.	UCC (Coord). Interoperability of omics data and connection with AI analysis and community	
IHMS CSA, International Human Microbiome Standards, FP7, 2011-2016	INRAE (coord.), EMBL, UCC	Open repository for standards and SOPs. Experience with the elaboration of consensual standards and SOPs. International visibility.
German Human Microbiome Initiative, DFG	TUM (coord.)	Dissemination and provider of success stories. SRIA and scientific priorities agreed at national level. Consensus building experience

Italian Microbiome initiative, CNBBSV, 2019-	IHMCSA SAB (UNIBO)	Data, standards and SOPs. SRIA and scientific priorities agreed at national level.
GMfH, Gut microbiota for health, section of ESNM	IHMCSA SAB	Communication tools.
INTERNATIONAL		
Microbiome Centers Consortium, USA, 2020-	IHMCSA SAB (UCI)	Standards and SOPs, international arena for harmonization and consensus building. International partner of the EMCC.
IHMC, International Human Microbiome Consortium, 2008-	INRAE, EMBL, UCC and IHMCSA SAB	International arena for dissemination of IHMCSA activities & data. Synergy between IHMC & IHMCSA events.
IMMSA, International Metagenomics and Microbiome Standards Alliance, NIST (USA)	IHMCSA SAB (NIH)	Standards and SOPs.
SCAR Group Food System	IHMCSA SSC	
EIT Health	IHMCSA SSC	Common effort to increase the awareness of health professionals. Reciprocal relays for dissemination. Coordinated activities, on shared priorities. Synergies of some working groups notably between the IAG microbiome initiative and IHMCSA WPs on standards, SOPs and translation. International positioning on broader scope of One Health Access to political bodies International dimension on personalized medicine
EIT Food	IHMCSA SSC	
Global alliance for chronic disease	IHMCSA SAB	
One Health initiative	IHMCSA SAB	
Health academies world-wide & IAGMicrobiome, Inter-Academic Group Microbiome	SSC, INRAE, EMBL, UCC, SAB	
ICPerMed, International consortium for personalized medicine	IHMCSA SAB	Providers of already agreed SRIA Relays for dissemination of IHMCSA output and internationalization Possible partners for the EMCC
HMP, Human Microbiome project, NIH funding, 2007-2016	IHMCSA SSC	
Indian Human Microbiome Initiative, NCMR (India), 2019-	IHMCSA SSC (NCCS)	
CMI2, Canadian Microbiome Initiative, CIHR (Canada), 2017-	IHMCSA SSC (Toronto Uni.)	
Million Microbiomes of Humans, openaccess to one million human microbiome samples from different body sites, BGI Research funding (China), 2019-2025	INRAE, OUH and IHMCSA SAB	Experts' feedbacks and data sharing for reference material on healthy microbiome. Contribution to work on SOPs and standards.
The Microbiota Vault initiative, Conserving the diverse microbiota to ensure long-term health for humanity	INRAE and IHMCSA SSC (Rutgers Uni.)	SOPs and standards on sample collection and conservation of complex consortia.

Annex 6: What do people on the internet want to know about the microbiome?

Key word analysis for the term 'Human Microbiome' on Google Analytics can provide some input on what people search for the most when it comes to the topic of the human microbiome. The outcome of such an analysis provides ideas on the content creation for material and engagement activities with the general public as target audience.

Overall, the term 'Human Microbiome' with 6,600 average monthly searches worldwide is less known and used than the term 'Gut Microbiome' (18,100 searches) or 'Microbiome' in general (74,000 searches). This shows a particular strong association of the public between the concept of the human and gut microbiome and should be taken into further consideration. Further on, the difference between the terms 'microbiome' and 'microbiota' should be mentioned and clarified.

If to write about the topic of the 'Human Microbiome' the following questions are asked most frequently:

- What is the human microbiome and why is it important?
- What does the human microbiome consist of?
- Where does the human microbiome come from?
- How is the human microbiome formed?
- How does the human microbiome promote health?
- How does the microbiome affect/influence the immune system?
- How much do we know about the human microbiome?
- How can one improve the human microbiome?
- Does the human microbiome change?
- How/when was the human microbiome discovered?

Annex 7: Persona Exercise

Group 1 – Journal Editors

Target Audience:	Journal Editors
Name:	„Berthold“
Age:	65
Job Title:	Nature Primary Editor
Values: (What matters to this person?)	Scientific integrity: robust data and meaningful conclusions Innovation novelties
Interests: (What is the person interested in - professionally & personally?)	Impact for the journal and journal business models Clear messaging for a broad range of scientific disciplines Grass-root breweries
Opinions: (What does the person think about the human microbiome?)	‘Our results will not be rooted in as much scientific rigour as other core microbiology experiments’- due to difficulties to carry out long-term in vivo studies Sexy subject, but due to large amount of research coming out and still it not being easily transferable to impactful applications (health, society), it is starting to lose its attraction
Frustrations: (What annoys this person about the human microbiome?)	The vagueness of microbiome research at this stage Overselling of potential of the microbiome Unproductive competition between countries and disciplines in the field
Quote: (A typical sentence for this person.)	‘So what?’ ‘Mars exploration is more exciting, interesting and impactful than microbiome research at the moment’
Key message towards this persona:	Human Microbiome Action will be showing up the hurdles and challenges of microbiome research to those actors powerful enough to clear these hurdles away through an international and multi-actor approach. As part of it, we will put forward a check-list of relevant standards and good practices that microbiome research has to fulfil before it gets published.
Channel(s): (Where can we reach this person?)	<ul style="list-style-type: none"> • Conferences with Nature booths (check whether they organise scientific events) • Invitation to Human Microbiome Action events • Tagging on Nature social media (Twitter, not on TikTok) • Attend the trainings by the Nature group, to get an ‘in’ to sharing our ideas

Group 3 – Reference Laboratories

Target Audience:	Reference Laboratories
Name:	"SmartTech"
Age:	50
Job Title:	Senior Manager of Ref Lab
Values: (What matters to this person?)	Rigorous; Able to interact with people; up-to-date; clear; structured; vaccinated
Interests: (What is the person interested in - professionally & personally?)	Innovation; service for society at large; scientific applications; technological advances; Keeping healthy
Opinions: (What does the person think about the human microbiome?)	Important for health and well-being; potential new business; opportunities for personalized healthcare; opportunities beyond human microbiome
Frustrations: (What annoys this person about the human microbiome?)	Lack of standards; slow transfer / translation of new ideas to real world; need to solve problems of low biomass samples / human DNA loaded samples; mislabeling of samples sent!!
Quote: (A typical sentence for this person.)	Let's sequence that out! We need to agree on standards and get everyone to follow them I'll send you a quote...
Key message towards this persona:	Human Microbiome Action is going to help you with standardization Human Microbiome Action is going to give you access to all relevant stakeholders in the field
Channel(s): (Where can we reach this person?)	Publication; Learned societies...