HORIZON-HLTH-2021-TOOL-06-02

Project No. 101057491

Oral delivery of encapsulated RNA nanotherapeutics for targeted treatment of ileal Crohn's disease

Deliverable 6.3
Interim impact report I

WP 6 – Communication, dissemination and exploitation

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Revision history

Author(s)	Description	Date
Jamuna Siehler (accelCH)	Draft deliverable	21/02/2024
Luisa Avedano (EFCCA)	Revision 1	19/03/2024
Jamuna Siehler (accelCH), Eva Avilla Royo (accelCH)	Final version	22/03/2024

Contents

Partner short names

UCC	University College Cork
i3S	Institute of Research and Innovation in Health
UU	Uppsala University
CarboHyde	CarboHyde ZRT
Janssen	Janssen Pharmaceutica NV
Lonza	Capsugel France SAS
EFCCA	European Federation of Crohn's and Ulcerative Colitis Associations
accelCH	accelopment Schweiz AG
BU	Bangor University

Abbreviations

CD	Crohn’s disease
D	Deliverable
DoA	Description of Action
EC	European Commission
EFCCA	European Federation of Crohn’s and ulcerative Colitis Associations
EU	European Union
FAQ	Frequently Asked Questions
HEU	Horizon Europe
IBD	Inflammatory Bowel Disease
KIP	Key Impact Pathways
KPI	Key performance indicators
M	Month
MS	Milestone
PI	Principal Investigator
RNA	Ribonucleic acid
SEO	Search Engine Optimisation
SERI	Swiss State Secretariat for Education, Research and Innovation
SME	Small and medium-sized enterprises
T	Task
UKRI	UK Research and Innovation
WP	Work Package

Executive summary

Background

The deliverable D6.3 Interim impact report I is part of WP6 – Communication, dissemination and exploitation. It presents an overview of all implemented communication and dissemination activities until M18 of the GENEGUT project, as well as an assessment of their contributions to the overall scientific, societal and economic/technological impact of the project. This first of two Interim impact reports also provides the basis for evaluating and re-assessing implemented strategies and potential measures for improvement.

Objectives

The key objective of this deliverable is to provide a comprehensive overview of the communication and dissemination activities implemented so far, assessing their impact by means of the Horizon Europe Key Impact Pathways (KIPs) and exploring potential measures of improvement.

Methodology and implementation

This plan is based on the project's Description of Action (DoA), the GENEGUT communication and dissemination plan (CDP - D6.2, submitted on 31/03/2023), as well as partners' reports on feedback on the implemented activities. The plan builds on the metrics defined in the CDP and will be followed by Interim impact report II (D6.4), which will include the assessment of all activities that are yet to be implemented, with a stronger focus on dissemination and exploitation, with an aim to provide quantifiable indicators of the achieved scientific, societal and economic/technological impacts.

Outcomes

The Interim impact report I is structured into the following sections: Introduction (section 1), Goals (section 2), Activities and Impact Assessment (section 3), with the subsections dedicated to Communication (section 3.1) and Dissemination (3.2). The report closes with Conclusions and Measures for Improvement (section 4) and an Outlook (section 5).

Impact

This deliverable is key to assessing how the implemented communication and dissemination activities contribute to the overall impact of the GENEGUT project, with specific focus on the scientific, societal and economic/technological impacts. This will allow all project partners to evaluate the effectiveness of GENEGUT's outreach efforts, providing an opportunity to improve measures for its entire duration.

Next steps

All members of the GENEGUT consortium will have access to this document to make use of the assessment when implementing future activities. This plan will be proceeded by Interim impact report II (D6.4).

1 Introduction

GENEGUT is a four-year Horizon Europe project aimed at developing the first oral RNA-based therapy for ileal Crohn's disease. By bringing together clinical researchers, SMEs, large pharmaceutical companies, and a patient association, GENEGUT addresses a severe unmet medical need. This innovative approach has the potential to significantly improve patients' quality of life by revolutionising the management of this chronic condition.

The project is of high societal relevance and thus requires a clear communication and dissemination strategy to maximise its impact, as described in detail in the GENEGUT Communication and Dissemination Plan (CDP – D6.2). This deliverable, the first Interim impact report (D6.3), provides a comprehensive overview of the communication and dissemination activities achieved so far, and assess their impact by means of the Horizon Europe Key Impact Pathways (KIP), evaluating their effectiveness and presenting an outlook in the improvement and/or adaption of activities going forward. Interim impact Report I is one of two deliverables to assess the achieved impact of GENEGUT outreach activities, and will be followed by Interim impact Report II (D6.4) in M36 of the project.

2 Goals

With the help of this deliverable, the GENEGUT partners aim to **report** on dissemination and communication activities implemented during its first 18 months, present an **assessment** of the implemented activities based on the **Key Impact Pathways** and provide an **outlook and suggestions** for improvement and adaption of activities where needed.

The overall aim of reporting and evaluating the dissemination and communication activities of GENEGUT is not only to keep improving the effectiveness of the CDP and increase the project's reach, but to strategically maximise the impact of the project across science, society, and economy in accordance with the KIPs.

Scientific Impact: GENEGUT's findings significantly contribute to scientific knowledge by advancing RNA-based therapies. Through the project's research efforts, GENEGUT will produce high-quality new knowledge on advanced therapies related to Crohn's disease.

Societal Impact: The project directly benefits patients, healthcare systems, and society at large. With the achieved project results, GENEGUT informs clinical practices, enhances patient outcomes, and fosters a healthier population. Patients gain access to more effective treatments, and healthcare systems become better equipped to manage this complex condition. GENEGUT results have the potential to inform policies related to Crohn's disease treatment. Policymakers and regulatory bodies can benefit from the project's findings, shaping guidelines, reimbursement strategies, and access to innovative therapies. The project's evidence-based recommendations can drive positive policy changes.

Economic/Technological Impact: GENEGUT, standing at the forefront of innovation, introduces novel approaches and technologies that revolutionise the ways to manage Crohn's disease. In the medium to long-term, the project will contribute to the EU's positioning as a leader in RNA therapeutics research and manufacturing through the uptake and further application of its results to other diseases. Beyond health outcomes, GENEGUT has the potential to lead to substantial economic gains. Reduced healthcare costs due to improved disease management, increased productivity among patients, and streamlined treatment protocols all contribute to a healthier economy.

3 Activities and Impact Assessment

The communication and dissemination activities planned in GENEGUT as part of Work Package (WP) 6 are crucial to raise awareness about the project and its objectives, to provide information on the GENEGUT therapies and their potential impact, to disseminate the research results generated in the scientific WP, and to pave the way for the exploitation of the GENEGUT therapy, innovations, and clinical trials.

In this section, we assess the project's varied range of communication activities first (Section 3.1), followed by the dissemination activities (Section 3.2). Those activities implemented to date are covered below, whereas those that have yet to start will be described in the Interim impact Report II (D6.4). Figure 1 provides an overview of all planned and implemented communication, dissemination and exploitation activities.

Type	Activity	Patients	Society	Academia	Healthcare	Industry	Regulatory	Partners
Communication and Engagement	Website and Social Media content	✓	✓	✓	✓	✓	✓	accelCH, all
	Press releases	✓	✓	✓	✓	✓	✓	accelCH, all
	TV and media formats	✓	✓	✓	✓	✓	✓	accelCH, all
	Infographics	✓	✓		✓			accelCH, all
	Explainer videos	✓	✓	✓	✓	✓	✓	accelCH, all
	Audi-stories	✓	✓					EFCCA
	Webinar series			✓		✓		CarboHyde all
	Exhibition	✓	✓	✓	✓	✓	✓	UCC
	Open Science events		✓				✓	i3S, all
	Patient activties (Factsheet, Academy,	✓						EFCCA, accelCH
Dissemination	Scientific publications			✓	✓	✓		UCC, all
	Video abstracts			✓	✓	✓		UU, all
	Conference presentations			✓	✓	✓	✓	UCC, all
	Cluster event	✓	✓			✓	✓	EFCCA, accelCH
Exploitation	IP mapping					✓	✓	UCC, accelCH
	Regulatory Involvement					✓	✓	BU, UCC
	Policy recommendations				✓	✓	✓	BU, UCC
	Clinical trial protocols				✓	✓	✓	UCC, BU
	Roadmap for Exploitation			✓		✓	✓	UCC, BU

Figure 1: Communication and Dissemination activities GANTT.

To effectively monitor and evaluate the implemented communication and dissemination activities throughout the project, the GENEGUT consortium uses the *accelCOCKPIT Project Communications*. This customised and comprehensive tool, developed by accelCH, enables the tracking of communication and dissemination activities related to the project, facilitates their assessment and helps in planning corrective measures. Key data streams feeding into the *accelCOCKPIT Project Communications* include:

- The information provided by all project partners through accelCOCKPIT Communications collector, known among the consortium members as GENEGUT_DISCO_tracking-tool
- Data from Google Analytics 4 on the project website performance;
- Data from social media analytics on the GENEGUT channels performance;
- Information from direct feedback on events, conferences, webinars, etc.

3.1 Communication

Effective communication serves as a bridge between research and practical application. By fostering dialogue, sharing knowledge, and informing key stakeholders, it is an essential tool to maximise the impact of a project (see Figure 2). In GENEGUT, communication activities are implemented as part of T6.1: Cross-media communication and outreach, led by accelCH with participation of all GENEGUT partners. The following activities have been implemented and will be described and assessed in detail in the following chapters.

- ✓ Project website and regular news posts and series like the GENEGUT patient stories
- ✓ Social media channels and campaigns like #WhatsOnWednesdays
- ✓ Audio-visual material like the #GENEGUTexplains explainer videos
- ✓ Initial press release sparking widespread media coverage
- ✓ Patient materials like a Factsheet for patients and a patient flyer.

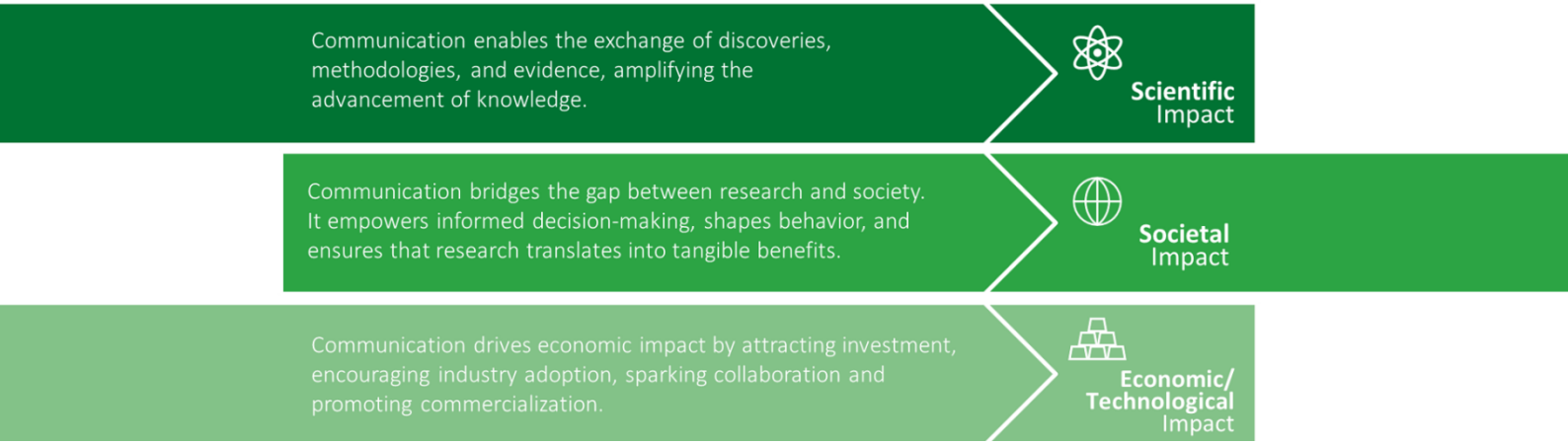

Figure 2: The impact of effective communication.

3.1.1 GENEGUT Website

The GENEGUT website serves as a user-friendly, accessible, and comprehensive online platform to inform on the most current project developments, key results and outcomes as well as achievements of the project and its individual participants. It is continuously updated with informative news articles and multimedia content (e.g. interactive infographics or explainer videos) to enhance outreach to society. Additional information on the project website is available through deliverable D6.1 - Project website.

accelCH regularly reviews and updates the with new communication material developed for the project, or as new results and output become available to share from the partners. Since the submission of D6.1, the website has been extended with new content:

- Frequently Asked Questions FAQ page: The FAQ section has been set up to answer common questions about the GENEGUT project, including its purpose, availability, clinical studies, and safety considerations.
- Results page: The results page has been created to provide an overview of all GENEGUT results in the form of publications and conference participations.
- Multimedia content: The website has been updated with more multimedia content, including interactive infographics, explainer videos, press releases, etc.

- Resources for patients: The resources for patients' section on the media page of the website offers tailored information for Crohn's disease patients, including the Factsheet for patients and a patient flyer.

Assessment: Performance and impact of the GENEGUT website

The performance of the GENEGUT website is measured using Google Analytics 4. The website was set up in July 2022, before the project start, so the data covers website traffic three months before the project start up until M18 of GENEGUT. As illustrated in Figure 3, the website has seen an initial steady increase followed by a stable number in both, new and returning users, as well as in sessions and engaged sessions, with an average number of 194.5 sessions and 128.8 users per month. This consistent growth and maintained audience indicate that the website has been successful in attracting and retaining a diverse audience.

Project Month	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Returning Users	0	16	20	21	25	20	34	24	16	16	19	18	10	14	29	20	14	16	15	85	20
New Users	210	188	150	176	85	186	179	104	92	100	113	75	75	64	126	105	82	37	91	96	59
Sessions	289	296	280	329	201	285	366	209	151	175	215	162	123	135	239	176	170	72	154	149	121
Engaged sessions	181	182	191	206	136	180	247	130	115	106	140	100	85	90	159	121	117	54	107	31.48	72

Figure 3: GENEGUT website performance, July 2022-M18.

The website's acquisition channels, shown in Figure 4, indicate that the majority of traffic comes from direct visits (35%) and organic search (33%). This suggests that website users are searching for terms relevant to the project leading them to the GENEGUT website, which attributes to the website's search engine optimisation (SEO) efforts. Organic social media contributes 18% of the traffic, while email campaigns account for 4%. The remaining traffic comes from referrals and organic video content. The most viewed pages on the website, as shown in Figure 5, include the Home page, Partners page, Project, Crohn's Disease, RNA Therapy, News, Media, and About as well as the Project press release news article, which can be connected to the effective distribution of the press release by the project and its partners (see section 3.1.3).

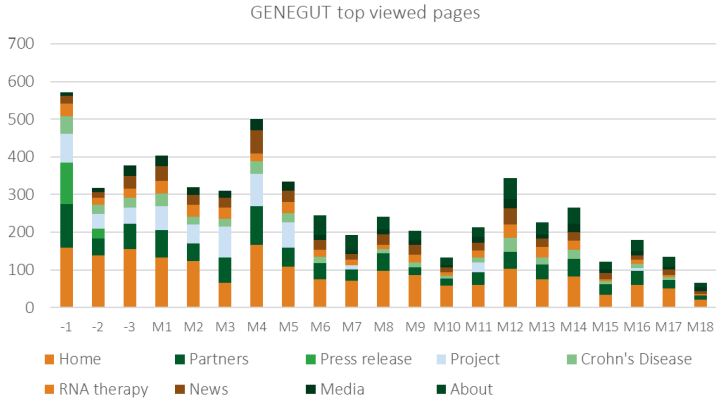

Figure 5: GENEGUT top viewed pages.

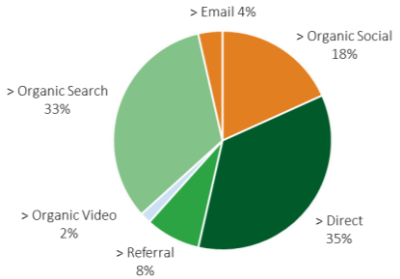

Figure 4: Website acquisition by channel group.

Scientific Impact: The GENEGUT website serves as a comprehensive resource for GENEGUT stakeholders, including the scientific community. It provides detailed information about the project's innovative approach to treating ileal Crohn's disease using RNA therapy. The website also features updates on the project's progress, including new publications, which can help researchers stay informed about the latest developments in the field.

Societal Impact: The GENEGUT website plays a crucial role in raising awareness about ileal Crohn's Disease. Through the targeted series of GENEGUT patient stories, we aim to highlight the unique experiences of people living with CD. These stories can help foster a deeper understanding of the disease among the public. The project also uses the website to support global initiatives like World IBD Day, to raise awareness about the challenges faced by those living with IBD.

Economic/Technological Impact: The GENEGUT website contributes to the project's overall economic and technological impact by, for instance, advertising open positions in the project which not only impacts the progress of GENEGUT but also provides opportunities for career advancement in the scientific community. Furthermore, the website has been used to demonstrate the project's commitment to the UN Sustainable Development Goals, particularly Goal 3 (Ensure healthy lives and promote well-being for all at all ages) and Goal 9 (Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation), highlighting the project's alignment with global economic and technological development goals.

3.1.2 Social media

The GENEGUT project has three social media channels set up to support its outreach efforts and increase the reach of the project. GENEGUT has a presence on **LinkedIn**: GENEGUT; **X/Twitter:** @GENEGUT_EU as well as **YouTube:** GENEGUT_EU, where the latter is primarily used to host the videos embedded on the GENEGUT Website.

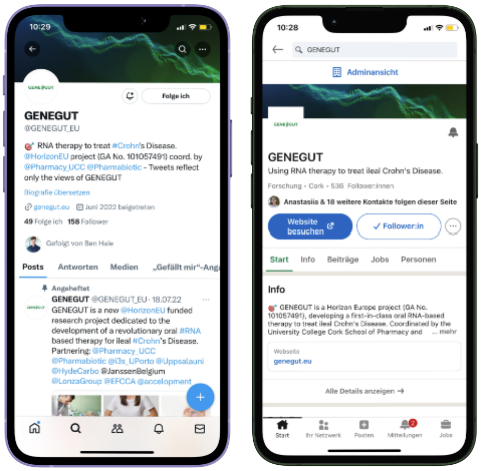

Figure 6: The GENEGUT social media channels.

Since the beginning of the project, GENEGUT aimed to use its social media channels to speak to as many stakeholder groups as possible and actively involve and amplify the voice of patients through a variety of social media campaigns, as well as the opportunity to share posts by consortium members and thus maximise the available networks to communicate about the project.

In a strategic move to involve the broader public, GENEGUT implemented the "ScienceVocab Polls" social media campaign. Through interactive polls on X/Twitter and LinkedIn, the project directly engaged the GENEGUT online community. These polls specifically targeted technical terms aligned with GENEGUT's research objectives, with a focus on those relevant to early-career researchers. By analysing the poll results, project partners identified terms that were overly technical for the GENEGUT audience and highlighted those lacking context. As part of a science communication training initiative within the project, GENEGUT's early-career researchers made use of their aquired skills to revise research objectives using layman-friendly terms and crafted tweets for this social media campaign, forming a series of informative tweets crafted to foster better understanding and awareness of GENEGUT's work (Figure 7).

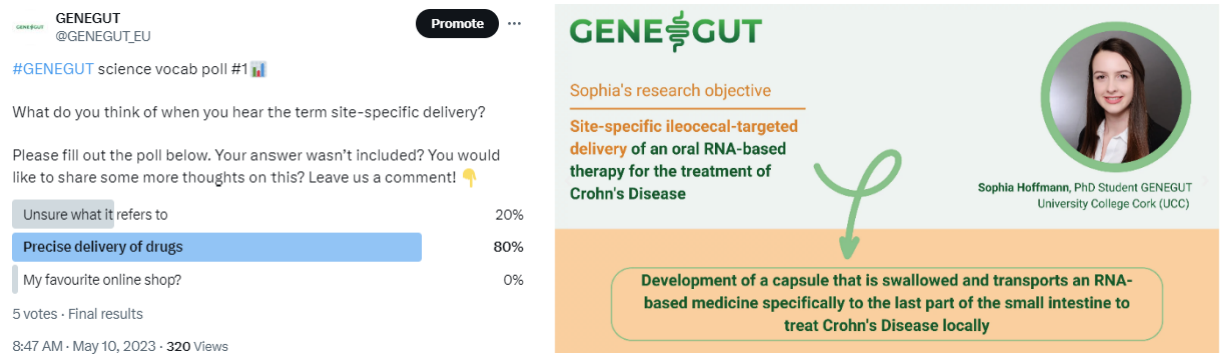

Figure 7: "ScienceVocabPolls" and social media campaign.

Assessment: Performance and impact of the GENEGUT social media channels

The social media channels on LinkedIn and X/Twitter are monitored via their built-in analytics platforms, and metrics are available monthly. The social media channels have been set-up together with the website before the start of the project, and the first available data dates to M1 of the project, October 2022.

The GENEGUT social media channels have seen a steady increase in followers, reaching a total of 696 total followers by M18. As shown in Figure 8, GENEGUT has gained most of its online following on LinkedIn, making it the most effective social media platform for the project (see Figure 9).

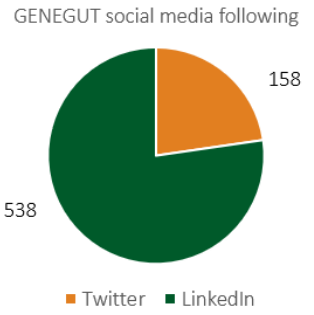

Figure 8: GENEGUT online followers.

Figure 10 shows the number of impressions of social media posts on both, LinkedIn and X/Twitter. Impressions document the number of times this content was seen. LinkedIn's performance has been relatively stable, with impressions typically ranging between 1,000 and 4,000. A notable exception occurred in M12 when impressions spiked to nearly 5,700. This surge coincided with the release of the Nanocarriers explainer video, underscoring the impact of audio-visual content on audience engagement. Impressions on Twitter are much more volatile compared to LinkedIn. There's a significant peak at month 9 with over 4,300 impressions, again, correlating to a #GENEGUTexplains video on mRNA (see section 3.1.4). X/Twitter has a pattern of high peaks which indicates moments of high visibility. These peaks are not sustained, however, which could imply that the content or campaigns that cause these surges are not consistent or that follower retention strategies may need to be improved.

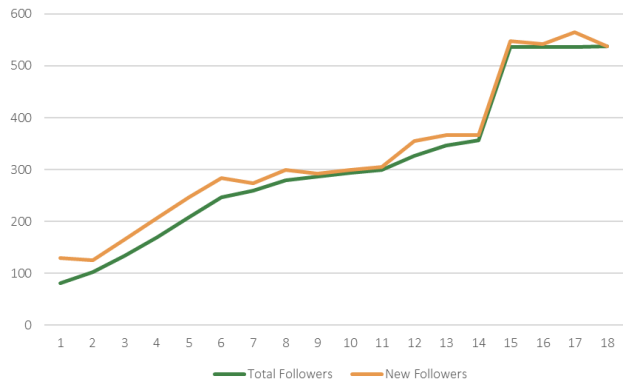

Figure 9: Follower count on LinkedIn M1-M18.

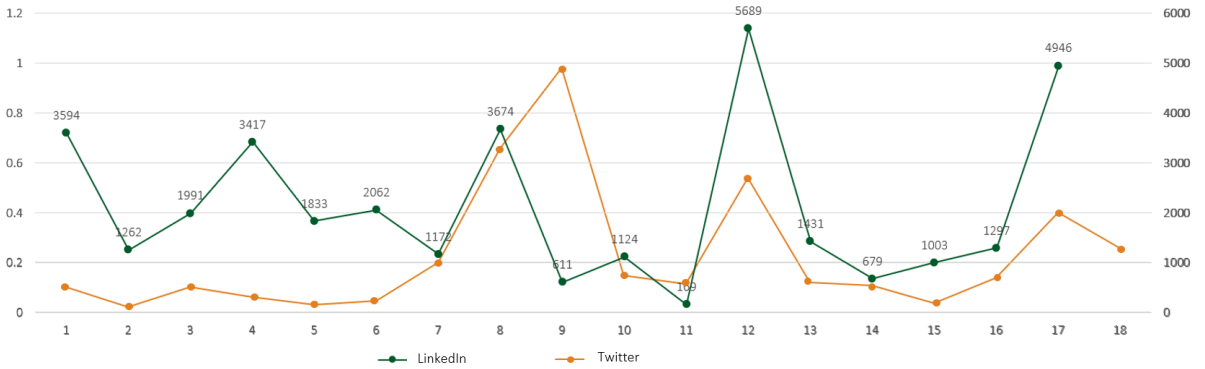

Figure 10: Impressions on LinkedIn and X/Twitter M1-M18.

Scientific Impact: The GENEGUT social media channels help to establish connections with fellow researchers, institutions, and experts. This fosters collaboration, facilitates knowledge exchange, and promotes cross-disciplinary learning. Through social media, GENEGUT disseminates research findings and updates such as publications and conference participations, impacting the transfer of scientific knowledge to a wider audience who benefit from real-time sharing of information. This visibility enhances the project's impact within the scientific community.

Societal Impact: The GENEGUT social media channels contribute to breaking down scientific jargon into layman-friendly terms, empowering non-experts including patients and the general public to actively engage with the project. This inclusivity bridges the gap between scientific research and everyday understanding. The project uses its social media channels to amplify the voices of patient organisations in the network of GENEGUT partner EFCCA, enabling them to advocate for research priorities, influence policy decisions, and ensure that patient perspectives are integrated into the project's goals.

Economic/Technological Impact: The GENEGUT social media channels are used to actively engage with other related EU-funded projects. These connections are crucial for potential new scientific collaborations and follow-up projects. GENEGUT also uses social media to share job advertisements, for open positions and research vacancies, contributing to talent acquisition and growth within the project. Early-career researchers within GENEGUT also actively contribute to the content shared via the social media channels, providing them important transferable skills for future career opportunities in academia and industry.

3.1.3 Press release

GENEGUT aims to publish a number of press releases to report on project milestones or significant results. The first press release, titled *"An innovative EU-funded research project to change the treatment paradigm for Crohn's Disease patients with a new RNA-based advanced therapy"* was published before the start of the project (July 2022) and developed in collaboration with GENEGUT partner's media and press offices.

Assessment: Performance and impact of GENEGUT's first press release

The first GENEGUT press release has gained significant traction and achieved extensive international media coverage of the project and its partners. As an initial step, the press release was shared with all partners for further distribution. This led to uptake of the press release by various media outlets (Table

1), and articles were featured in reputable publications reaching diverse audiences. Notably, the project received coverage in both specialised scientific channels covering European Research and Innovation (such as Horizon Europe Ireland) and broader news platforms (like Echo Live and Sic Noticias). The inclusion of GENEGUT in the EFCCA Magazine further contributed to the project's visibility among patients, caregivers, and healthcare professionals. Given this, the first published press release has proven to be an effective communication measure inform about the project on a European as well as national level. All media coverage as presented below is also listed and kept up to date on the GENEGUT website media page.

Table 1: GENEGUT media coverage following GENEGUT's first press release.

Title	Outlet	Country	Date
Changing the Treatment Paradigm for Patients with Crohn's Disease	EFCCA Magazine	Belgium / EU	October 2022
CarboHyde Participates in Innovative EU-Funded Research Project	CarboHyde News	Hungary	October 2022
New Consortium to Develop RNA-Based Treatment for Crohn's Disease	Uppsala University News	Sweden	September 2022
GENEGUT project aims to transform treatment of ileal Crohn's Disease	Horizon Europe Ireland	Ireland	September 2022
UCC Project Hoping to Revolutionize Crohn's Disease Treatment	Echo Live	Ireland	July 2022
Doença de Crohn: Portugueses Integram Projeto Europeu para Criar Terapia Oral	Sic Noticias	Portugal	July 2022
Projeto de €5,4 Milhões Visa Criar Terapia Oral para a Doença de Crohn	Expresso Portugal	Portugal	July 2022
UCC Awarded €5.4 Million Funding for Next Generation Treatment	UCC News and Views	Ireland	July 2022

Scientific Impact: The GENEGUT press release and the following media coverage have contributed to raising awareness of innovative RNA-based treatment approaches for Crohn's disease. By featuring in reputable scientific channels like Horizon Europe Ireland and Uppsala University News, the project was able to gain credibility within the scientific community. The coverage underscores the project's potential to advance understanding and treatment options for ileal Crohn's disease, stimulating scientific discourse and interest in RNA-based therapies.

Societal Impact: The inclusion of GENEGUT in the EFCCA Magazine and broader news platforms such as Echo Live and Sic Noticias significantly increases visibility among the general publica as well as patients, caregivers, and healthcare professionals. The widespread media coverage through diverse channels promotes understanding and engagement, empowering stakeholders with knowledge about the project and its objectives.

Economic/Technological Impact: The media coverage contributes not only to the project's visibility, but also to the visibility and reputation of all GENEGUT partners. This is crucial for potentially attracting investment and partnerships to further develop the GENEGUT results.

3.1.4 Explainer videos

With the start of the first year of the project, GENEGUT has been creating and producing a series of explainer videos, titled #GENEGUTexplains, addressing the key focus areas of the project. The videos are approximately 1-2 minutes long and adopt an easy, laymen friendly language, making them a valuable resource across all GENEGUT stakeholder groups.

Assessment: Performance and impact of the GENEGUT explainer videos

To this date, GENEGUT has published four explainer videos, featuring PIs in the GENEGUT project and key scientific concepts crucial for GENEGUT. The published videos so far include: "What is GENEGUT?" (Prof. Caitriona O'Driscoll, UCC); "What is regional delivery?" (Dr. Vincent Jannin, Lonza and Prof. Brendan Griffin, UCC), "What is mRNA?" (Dr. Piotr Kowalski, UCC) and "What are nanocarriers?" (Dr. Joey O'Shea, UCC). All explainer videos under the hashtag #GENEGUTexplains are uploaded to the project's YouTube channel, embedded on the website and a shorter, social media friendly version, shared on the GENEGUT LinkedIn and X/Twitter channels. The GENEGUT explainer videos have had a significant impact in terms of their performance across all social media platforms. Tracked on the platforms built-in analytics platforms, they have reached a substantial total of 22,916 views, indicating a broad audience reach and high level of engagement, remaining one of the most popular types of content created by GENEGUT so far. LinkedIn has proven to be the most effective channel to distribute the #GENEGUTexplains videos (see Figure 11).

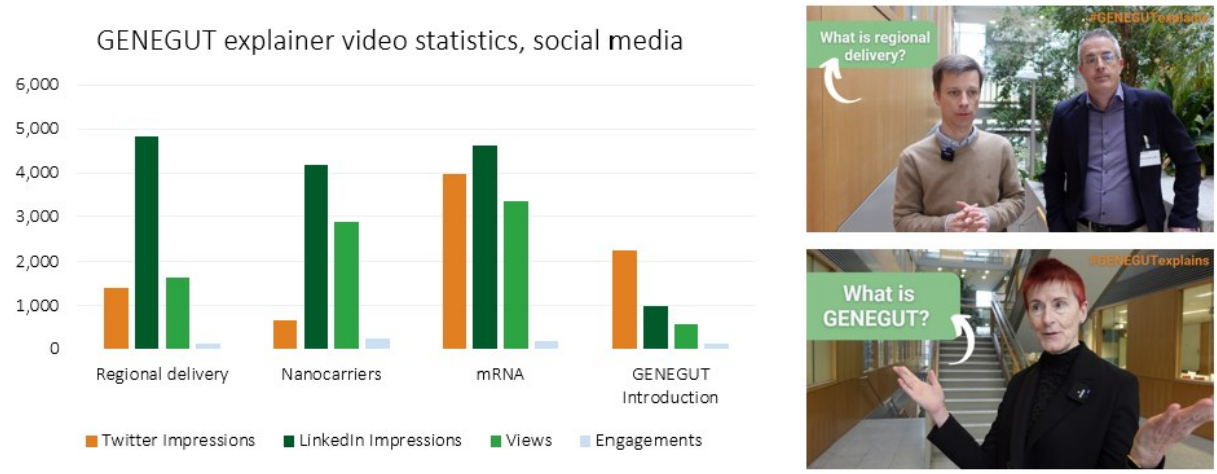

Figure 11: #GENEGUTexplains social media impressions, views and engagement per video.

Scientific Impact: With their objective of explaining key scientific concepts crucial for GENEGUT, the GENEGUT explainer videos have facilitated a deeper understanding of the project's focus areas. Topics such as regional delivery, mRNA or nanocarriers have been addressed in a layman-friendly language, making scientific knowledge more accessible and comprehensible. This has the chance of not only fostering a culture of scientific literacy but also encouraging more inclusive scientific discussions.

Societal Impact: The GENEGUT explainer videos play an important role in bridging the gap between the research conducted in the project and society. By adopting an easy, layman-friendly language, these videos have reached a broad audience, as evidenced by the total of 22,916 views. This indicates a high level of public engagement and interest.

Economic/Technological Impact: By featuring prominent PIs in the project, the GENEGUT explainer videos have not only enhanced their visibility but also contributed to their reputation in the scientific community, which is important for attracting investment in research and innovation, thereby creating more and better jobs in the field. The popularity of the videos on professional networking platforms like LinkedIn highlights the potential of such platforms in reaching relevant stakeholders in academia and industry.

3.1.5 Factsheet and flyer for patients

To support the project's patient-centered approach, GENEGUT in close collaboration with EFCCA created a Factsheet for patients as well as a patient flyer. Both resources are available for digital download on the website, and can easily be printed and taken to conferences for in-person distribution. Both, the factsheet as well as the flyer, summarise all relevant information for patients about GENEGUT, and cover the most frequently asked questions.

Figure 12: GENEGUT patient material (left: Patient flyer, right: Factsheet for patients).

Assessment: Performance and impact of the patient resources

Through the participation of GENEGUT partner EFCCA, both the Factsheet for patients as well as the flyer were made available at the ECCO conference and UEG week in 2023. These conferences are attended by a large number of patients, professionals and stakeholders in the field of gastroenterology. Given this, it can be assumed that the resources reached a substantial audience. The patient flyer was also taken and distributed to the EFCCA General Assembly in 2023, with an attendance of representatives of 46 national IBD patient associations. During a presentation given by GENEGUT coordinator Prof. Caitriona O'Driscoll (see Figure 13), EFCCA delegates had the chance to receive a general overview of the project and learn more details that were explained in patient friendly language. Based on partner feedback, the resources have been well received and taken up by attendees at all events.

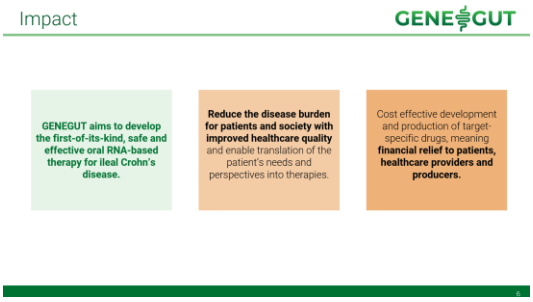

Figure 13: GENEGUT patient presentation during EFCCA General Assembly in 2023.

Scientific Impact: The sharing of the GENEGUT patient resources at major conferences helps to inform about the project and its patient-centered approach to a wider audience of healthcare professionals and researchers. This encourages cooperation and the sharing of knowledge, which can contribute to sparking collaborative research across different fields, potentially leading to the development of new treatments and better care for patients.

Societal Impact: The GENEGUT patient resources can have significant societal impact. By providing patients, healthcare professionals, and other stakeholders with accessible and relevant information about new, innovative treatment approaches for Crohn's disease, the factsheet and flyer enhance the understanding and capacity to make informed decisions about healthcare.

Economic/Technological Impact: The distribution of the GENEGUT patient resources not only empowers patients with knowledge about new treatment pathways, but also raises awareness among the scientific community and industry professionals. This increased visibility and understanding can attract more investment into research and innovation, potentially leading to the development of new, advanced treatments.

3.2 Dissemination

Dissemination is defined as the public disclosure of the results by any appropriate means with the aim to transfer knowledge and share the project's research results with the scientific community and related stakeholders. Dissemination activities are essential for making research results available, enabling further uptake and ultimately maximising the impact of a project. In GENEGUT, dissemination activities are part of T6.2: Dissemination of scientific and technological results, led by EFCCA with contribution of all GENEGUT partners. As more results become available with the progress of the project, all partners will be strongly contributing to disseminating GENEGUT results.

Figure 14: The impact of effective dissemination.

3.2.1 Scientific publications

GENEGUT's academic partners are committed to publishing their results generated in the project in peer-reviewed journals and adhering to the EC's open access rules and guaranteeing free access to publications. The publications are also made available via the GENEGUT website as a central point of information on all published GENEGUT results.

Assessment: Performance and impact of scientific publications

As of M18, the first GENEGUT results have been published with a publication by GENEGUT partners i3S in *BBA - Molecular Basis of Disease,* titled *Trends in 3D models of inflammatory bowel disease* by Barbara Ferreira et al. A news article to inform about the publication has been shared on the GENEGUT website and social media channels (Figure 15). Several more publications have been submitted for review. Given this, the project is well on track on achieving its set goal of minimum 8 peer-reviewed publications published.

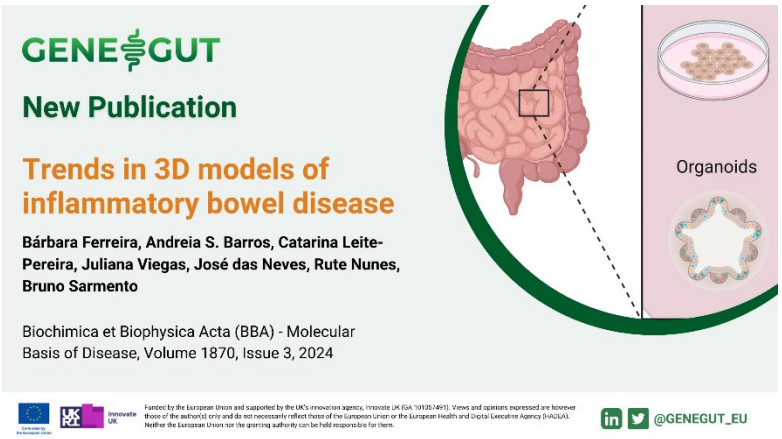

Figure 15: GENEGUT publication visual.

Scientific impact: GENEGUT's commitment to publishing results in peer-reviewed journals significantly contributes to the scientific impact of the project. By adhering to the European Commission's Open Science policies, the project ensures that its findings are accessible to the global scientific community. The dissemination of research through reputable journals facilitates knowledge exchange, encourages critical evaluation, and fosters collaboration. GENEGUT's academic partners play a crucial role in advancing the field of RNA-based therapies for Crohn's Disease by sharing their discoveries with fellow researchers worldwide.

Societal impact: GENEGUT's commitment to the EU's Open Science policy benefits patients, healthcare professionals, and the public. By disseminating results through peer-reviewed articles, GENEGUT contributes to a body of knowledge relevant to the medical community for new treatment options of CD. The GENEGUT website serves as an important point of information, providing easy access to all published results to stakeholder groups less familiar with scientific outlets which also empowers the patient community.

Economic/Technological impact: By disseminating research results in the form of scientific publications, the project attracts attention from industry stakeholders. News articles shared on the GENEGUT website and social media channels amplify visibility. This paves the way for industry, investors, and biotech companies to take notice, potentially leading to collaborations, funding opportunities, and technology transfer.

3.2.2 Conference participations

Participation in national and international conferences is a key part of the GENEGUT dissemination strategy, contributing to the project's impact and visibility. To this date, GENEGUT has participated in a number of high-impact international conferences, including the international mRNA Health Conference or New Horizons in Drug Delivery and Formulation Conference.

Assessment: Performance and impact of conference participations

Already within the first year of the GENEGUT project, there has been a strong commitment by all GENEGUT partners to attend important and well-recognised conferences to disseminate preliminary GENEGUT findings. To facilitate oral and poster presentations, especially of the GENEGUT early-career researchers, different versions of a GENEGUT scientific poster template have been set-up, supporting the overall visibility of the GENEGUT project. Table 2 lists the presentations reported by the partners.

Table 2: List of past and upcoming conference participation.

#	Title	Authors	Conference	Year	Country
1	Cyclodextrin-based nanoparticles as delivery vectors for RNA-therapy for Ileal Crohn's Disease	Ana Francisca Soares	UCC Futures Research Conference	2023	Ireland, IE
2	Identification of Polymeric Nanoparticles for Oral Delivery of RNA for the treatment of ileal Crohn's disease	Miguel Ramôa	UCC Futures Research Conference	2023	Ireland, IE

3	New generation of cyclodextrins: application in gene therapy	Tamas Sohajda	Annual Symposium of the Pharmaceutical Technology and Analysis branch of the Hungarian Academy of Sciences	2023	Hungary, HU
4	Identification of Polymeric Nanoparticles for Oral Delivery of RNA for the treatment of ileal Crohn's disease	Miguel Ramôa	11th International mRNA Health Conference	2023	Germany, DE
5	Organoid-based models for studying oral RNA therapeutics in Crohn's Disease	Dinh Son Vo	New Horizons in Drug Delivery and Formulation	2023	Sweden, SE
6	Establishment of a 3D Multi-layered In Vitro Model of Inflammatory Bowel Disease	Cláudia Martins	Controlled Release Society 2024 Annual Meeting and Exposition	2024	Italy, IT
7	Identification of Polymeric Nanoparticles for Oral Delivery of RNA for the treatment of ileal Crohn's disease	Miguel Ramôa	Controlled Release Society 2024 Annual Meeting and Exposition	2024	Italy, IT
8	Oral delivery and intestinal targeting of therapeutic nucleic acids	Caitriona O'Driscoll	14th PBP World Meeting	2024	Austria, AUT
9	Modified cyclodextrins as a platform for oral delivery of therapeutic nucleic acids to treat inflammatory bowel disease (IBD).	Caitriona O'Driscoll	21st International Cyclodextrin Symposium	2022	France, FR

Scientific impact: GENEGUT's participation in national and international conferences significantly enhances the scientific impact of the project. By presenting research findings at conferences, GENEGUT researchers engage with the scientific community and important stakeholders which allows for the exchange of ideas, collaboration, and critical feedback. GENEGUT benefits from exposure to cutting-edge research, novel methodologies, and emerging trends, ultimately advancing the field of RNA-based therapies for Crohn's Disease.

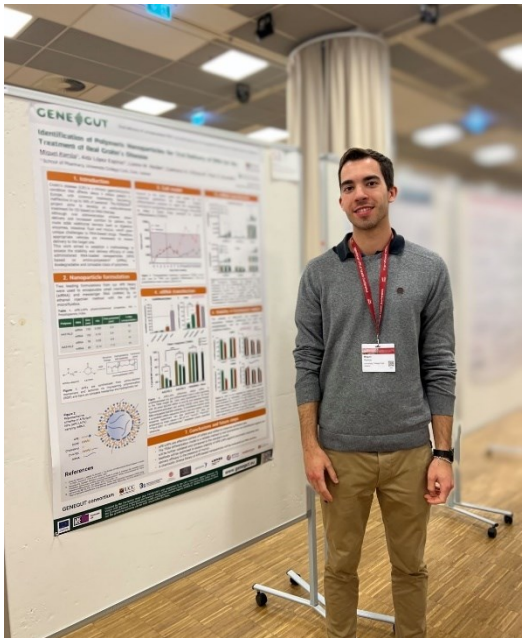

Figure 16: Miguel Ramôa presenting his first GENEGUT results, 2023.

Societal impact: Beyond the lab, conference participation contributes to the societal impact of GENEGUT. By disseminating results at conferences, GENEGUT partners also raise awareness about ileal Crohn's Disease. Increased visibility leads to better understanding and empathy among the public, patients, and healthcare professionals. GENEGUT's commitment to attending well-recognised conferences demonstrates its dedication to improving patients' quality of life.

Economic/technological impact: Conference participations play an important for the economic impact of GENEGUT. Industry partners, investors, and potential collaborators attend conferences, providing opportunities for networking, securing funding, and exploring commercialisation avenues. Moreover, GENEGUT's presence at conferences fosters collaborations with technology providers, potentially leading to further advancements in biomaterials, capsule platforms, and drug delivery systems.

4 Conclusions and Measures for Improvement

Assessing the impact of the of the implemented GENEGUT communication and dissemination efforts has provided us with insights on the effectiveness of each activity and their potential in amplifying the project's scientific, societal, and economic impact.

From before the start of the project, GENEGUT has gained significant attention online, leading to consistent numbers of website visitors and a steady growth of followers on LinkedIn and Twitter. The initial press release further contributed to the project's presence in national and international press through wide media coverage. The project's patient-centred material, facilitated and distributed by EFCCA, helped to increase understanding of the project's objectives among patients while also raising awareness for Crohn's Disease and the lived experiences of patients.

GENEGUT's efforts in disseminating first project results in the form of scientific publications and conference participations mark the first crucial steps in generating new, high-quality knowledge in a variety of fields while establishing important academic, regulatory and industry contacts, contributing to the economic/technological impact of GENEGUT.

To further enhance these impacts and ensure the project's continued success, several measures can be recommended. Firstly, enhancing the project's website SEO strategies could attract a broader audience, thereby increasing public engagement and awareness of the project's goals and achievements. This

could involve optimising content with relevant keywords, improving site speed, and ensuring mobile responsiveness.

Secondly, expanding social media engagement strategies, such as collaborating with other related EU-projects could significantly increase the project's visibility and impact. Engaging in more interactive content, like live Q&A sessions with researchers, could foster deeper connections with the audience.

Thirdly, the project could benefit from more targeted outreach to patient communities and healthcare professionals. Organising webinars or workshops that allow for direct interaction with these groups could provide valuable feedback and insights, enhancing the project's relevance and applicability to patient care.

Lastly, continuous evaluation and adaptation of communication strategies based on analytics and feedback will be key to maintaining the project's momentum and ensuring its outcomes are effectively disseminated to all stakeholders. Leveraging emerging technologies and platforms for communication could also open new avenues for engagement and impact.

5 Outlook

Several activities described in the previous sections are ongoing and will keep being implemented throughout the duration of the project and additional ones are planned for the upcoming months, as detailed in the CDP (D6.2). As more results become available, dissemination and exploitation activities will become increasingly important to contribute to the overall impact of the project. The second Interim impact report (D6.4, M36), will report on the activities implemented in the second and third year of the GENEGUT project, and provide updates of the scientific, societal, and economic/technological impact of all ongoing activities.

Some main selected upcoming activities include World IBD Day 2024 Audio stories, Webinar series, Open Science events and video abstracts.