



Unification of treatments and interventions for tinnitus patients

Proposal No.: 848261

Deliverable D8.2:

Exploitation plan and innovation management report

Deliverable No. D24 – WP8

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1 Introduction and Methodology

1.1 Exploitation in UNITI

The UNITI exploitation plan sets up the environment for the successful exploitation and sustainability of UNITI outputs. The main aim is to bring the UNITI innovative results and outputs to key stakeholders and to successfully transfer the UNITI know-how and technologies.

This exploitation plan is prepared on M27 of the project and details the methodology that is being used to make sure that UNITI outputs/innovations are being exploited to a wide target audience. In parallel, this report presents the most important dissemination and exploitation actions that UNITI consortium has carried out until M27 and summarises the next steps.

The final version of the exploitation plan (deliverable D8.3 Sustainability and business plans - M39) will include the plan on how each partner individually and the consortium collaboratively intend to make use of the results of the project after the funding period. For the UNITI outputs that have commercialisation potential, the final exploitation plan (D8.3) will also present their business cases.

1.2 Methodology

The current section presents the methodology that is being implemented to realise the project's exploitation potential. The methodology consists of the following phases:

- UNITI exploitation exploration / innovation management (M1 – M10)
- UNITI exploitation experimentation (M11 – M30)
- UNITI exploitation implementation (M31 – M39)

The aim of the **exploration phase** is to identify the main UNITI innovations (key exploitable results), to assess these innovations with regards to their exploitation potential and to inform the UNITI consortium about their contractual obligations to disseminate and exploit the innovative research results of the project.

The aim of the **experimentation phase** is to set the environment for the dissemination and exploitation of the important UNITI research outputs and for the identification of the outputs that have commercialization potential. For these outcomes the value propositions will be defined, and appropriate business and sustainability models will be developed.

The aim of the **implementation phase** is to present the individual and co-operative exploitation plans of UNITI project partners. It will also build upon the selected business and sustainability



model(s) towards a plan for actions to ensure the sustainability of the project outcomes (tools, methods and research) after the end of the project.

The next subsection describes the three exploitation phases, as well as their expected contribution and connectedness to the entire methodology.

1.3 Methodological approach

1.1.1 Exploration phase

1.1.1.1 Project outputs

The first task of the exploration phase aims to define the main UNITI project outputs (Section 2). For the identification and evaluation of the UNITI outputs, the Innovation Radar¹ methodology was used. A questionnaire² was distributed to all WP leaders with the aim to assess and categorise the UNITI outputs/innovations.

UNITI outputs can be divided into two main categories:

- a. the important **research outputs** (research-based knowledge) that should be transferred/disseminated to key stakeholders that can best make use of it.
- b. the outputs/tools that have **exploitation/commercialisation potential** that should be analysed in order to set the ground for the generation of value propositions and appropriate business models during the next exploitation phases.

The main UNITI outputs are presented below:

Tangible outputs with exploitation and commercialization potential (UNITI tools):

- mHealth User Neighbourhoods
- Interactive Exploration of mHealth User Data with Multimodal Similarities
- UNITI Clinical Decision Support System – CDSS
- UNITI Mobile App

Research outputs:

- Outputs/ Results from the UNITI Randomised Clinical Trials
- Genetic research outputs

¹ <https://www.innoradar.eu/>

² https://ec.europa.eu/eusurvey/runner/UNITI_innovations



- Socio-economic impact of tinnitus

More information about the UNITI outputs is presented in Section 2.

1.1.1.2 SWOT analysis

The second task of the exploration phase is to conduct an initial analysis of Strengths, Weaknesses, Opportunities and Threads (SWOT analysis – Section 3) that will help focus on UNITI strengths, minimise threats, and take the greatest possible advantage of opportunities available. The SWOT analysis will be presented in UNITI Consortium meetings and will be constantly updated during the project. SWOT will be further used to:

- Explore possibilities for new services.
- Make decisions about the best path for UNITI exploitation.

1.1.1.3 Intellectual Property Rights

One other task in the exploration phase is the presentation of the Intellectual Property Rights that are involved in an H2020 project (Section 4). The aim at this stage is to make all partners familiar with the IPR issues in order to prepare the plan on how to manage these IPRs during the implementation phase (D8.3 Sustainability and business plans - M39). First ideas on which IPRs are involved in the UNITI project tools are also presented.

1.1.2 Experimentation phase

This is the part where the knowledge acquired during the outputs identification is used for setting up the environment for exploiting the UNITI research outcomes (identify the potential end-users of the expected results and their impact on healthcare domain in general, on future developments and policy making) and for creating a plan for the sustainability of the UNITI tools. For the UNITI tools, value propositions will be identified and will be used as core components for the business and sustainability models to be developed in this and the next phase.

Towards better defining the value propositions of the UNITI tools and of the exploitation potential and procedures of the research outcomes, a business modelling workshop will be organised to activate all partners in putting down their ideas, considering their expertise, as well as the results of the initial exploitation phase, namely “Exploitation exploration”. The workshop will take place in the context of a UNITI project meeting (June 2022). The exploitation workshop (M30), will collect ideas from project partners regarding: a) exploitation potential of research results and b) value propositions of the project tools.



The proposed structure for the workshop is presented below:

- Basic terms will be defined (e.g. exploitation, sustainability, business models, SWOT, IPRs etc.).
- The project outputs will be presented and agreed.
- A structured discussion on how each project outcome can be exploited and sustained will follow.
- Furthermore, the consortium, will try to answer to the following questions:
 - What kind of needs does the project respond to?
 - What kind of problem the project outputs solve?
 - Who will use these results?
 - What benefits will be delivered and how much benefit?
 - How will end users be informed about the generated results?

VIL will draft the results of the workshop and together with the coordinator will present to the consortium the first plan for exploiting the UNITI key exploitable results. All these actions of the exploration phase will be included in “D8.3 Sustainability and business plans - M39”.

During the experimentation phase, the consortium will examine the possibility to apply for an Exploitation service offered by the Common Exploitation Booster³. Common Exploitation Booster is a support service offered by the European Commission. One of the services it provides is the “Brokering and Pitching Event (BPE)”. The service offers assistance with the design and preparation for an event that brings together project partners and other relevant actors, with issues such as:

- Facilitating groups of projects to meet and discuss their results in order to create synergies and generate new ideas for further exploitation of research results
- Training on pitching and presenting results to potential users, investors or collaborators.
- Assistance in finding relevant actors in the innovation-dissemination-uptake chain (end-users, industrial suppliers, standardisation bodies, risk capitalists, business angels etc.)

³ <http://exploitation.meta-group.com/Pagine/About-Us.aspx>



The output is a report of the event, practice and feedback on pitches, connections to relevant actors.

1.1.3 Implementation phase

This is the phase where the actions for the exploitation and sustainability of the UNITI outputs will be defined, and will include:

- the individual exploitation plans of each UNITI partner (How each project partner intends to exploit the results of the project?),
- co-operative exploitation plans of the UNITI consortium,
- plan on how the research outcomes can best be disseminated and exploited, and
- a sketch of proposed business models of the UNITI project tools, for post project activities.

In general, the activities in the implementation phase can be categorised in:

- research activities by advancing the state of the art in tinnitus treatments,
- exploitation activities, both in terms of specific products and services, but also as provision of state-of-the-art know-how and services to existing stakeholders,
- identification of further funding research and development opportunities by taking advantage of the know-how generated during the project.

Towards defining the partners' exploitation strategies, the following actions are also considered:

- a. VIL will develop an exploitation questionnaire asking project partners to provide a description about their exploitation plans, both at individual level (outputs to be exploited by them) and at project's level (evaluation of different scenarios, possible collaborations etc.). The questionnaire will be distributed to the UNITI partners on M36.
- b. VIL will analyse the results obtained from the questionnaire and integrate them in "D8.3 Sustainability and business plans - M39".

The questionnaire will be created after the discussion during a UNITI consortium (June 2022), envisaged to evaluate the project's exploitation strategies and UNITI business models in more detail, thus providing an opportunity to gather partners' ideas on how to use the project results and products at the local, regional, national, European and/or international levels. In light of

this UNITI's meeting, VIL will be able to clearly identify, analyse and describe: 1) the UNITI partners' individual exploitation plans; 2) the UNITI consortium joint exploitation plan.

2 UNITI project outputs

In this section the main UNITI project outputs are presented (Figure 1). These are the projects' main expected results that are being developed within the project's different Work Packages.

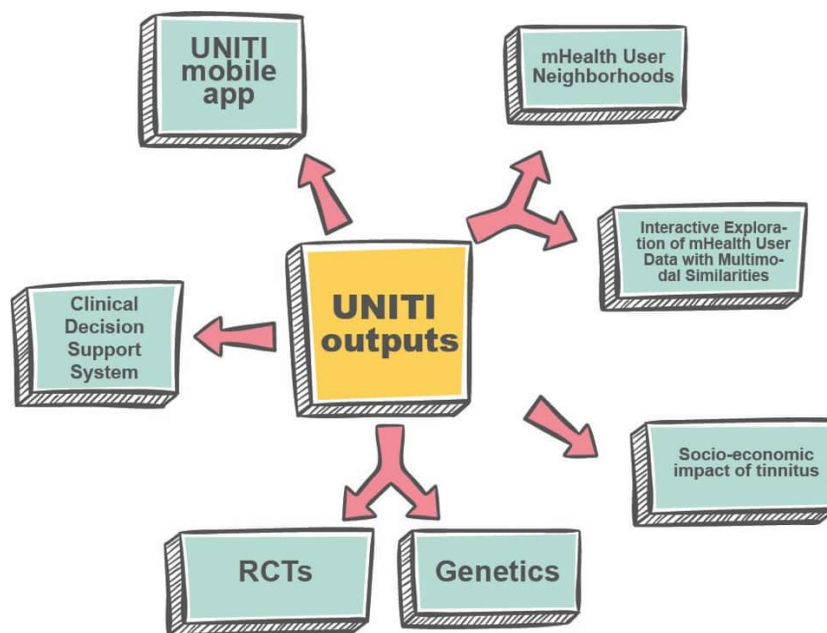


Figure 1: UNITI project outputs

2.1 Discovering mHealth User Neighbourhoods

Description of the output: The presentation and dynamics of Tinnitus in mHealth Ecological Momentary Assessments (EMAs), and its connection to the condition as assessed by questionnaires is still a matter of active research. Working with EMA data to identify user neighbourhoods based on (a) Predictability, (b) time series properties and (c) clinical questionnaires is expected to help physicians identify common patterns of presentation, and hopefully towards tailored therapeutic interventions.

Status: under development

Type of output/innovation: new service (except consulting ones)

Exploitation goals:

Table 1: Exploitation goals for "Discovering mHealth User Neighbourhoods"

A/A	Exploitation goal	Actions needed
1.	Wider adoption of the framework	<p>Preparation of scientific publications that present the framework used and the results.</p> <p>Exploit the framework to a wide target audience through dissemination activities (e.g. blog posts, demonstration materials etc.).</p> <p>Explore the possibility to release the framework as open source.</p> <p>Dissemination of techniques in other clinical disciplines.</p>

2.2 Interactive Exploration of mHealth User Data With Multimodal Similarities

Description of the output: The data from the mHealth users can be analysed by a physician while also analysing inter-user similarity as assessed by mHealth questionnaires. Summarising similarities in the time series as well as hospital data simultaneously is expected to allow a physician to understand symptom dynamics of the individual patient better. The exploration is further assisted through easy identification of outlier users that are not easy to predict.

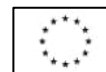
Status: under development

Type of output/innovation: new service (except consulting ones)

Exploitation goals:

Table 2: Exploitation goals for "Interactive Exploration of mHealth User Data With Multimodal Similarities"

A/A	Exploitation goal	Actions needed
1.	Wider adoption of the methods used	<p>Preparation of scientific publications that present the findings.</p> <p>Exploit the methods to a wide target audience through dissemination activities (e.g. blog posts, demonstration materials etc.).</p> <p>Examine whether this output could have commercialisation potential and assess the possibility to</p>



		<p>support the partner responsible in developing business models for this outputs.</p> <p>Dissemination of techniques in other clinical disciplines.</p>
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2.3 UNITI Clinical Decision Support System – CDSS

Description of the output: A Clinical Decision Support System (CDSS) based on prognostic models for the optimum treatment of tinnitus. The CDSS will run independently of the Randomised Clinical Trial however it will be validated by its findings. Moreover, data generated by both interventions and clinical examinations will be used as input allowing for personalised treatment. The data registry where the CDSS complies with all the necessary standards and guidelines thus ensuring maximum security and privacy of the involved patients and their sensitive information.

Status: under development

Type of output/innovation: new product

Table 3: Exploitation goals for the UNITI Clinical Decision Support System

A/A	Exploitation goal	Actions needed
1.	Wider adoption of the knowledge generated during the development of the UNITI CDSS	<p>Preparation of scientific publications that present the UNITI CDSS, the algorithms used and the results.</p> <p>Exploit the UNITI CDSS and its results (including its validation) through dissemination activities (e.g. blog posts, demonstration materials etc.).</p> <p>Dissemination of techniques and solutions achieved in the CDSS in other clinical disciplines.</p>
2.	Investigate the business potential of the UNITI CDSS	<p>Examine whether the UNITI CDSS could have commercialisation potential and provide support to the researchers that are developing the UNITI CDSS.</p> <p>Develop the UNITI CDSS business models and the UNITI CDSS business plan.</p> <p>Receive feedback from the RCTs (and all the clinics) with regards to the sustainability and exploitation potential of the platform.</p>



		<p>Establish an open dialogue with at least three companies working in the healthcare domain, present the business models and gather feedback.</p> <p>Disseminate the UNITI CDSS and its value to a wide target audience.</p>
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2.4 UNITI mobile App

Description: The UNITI Mobile App is a mobile framework available for iOS and Android. The overarching goal is the treatment of chronic tinnitus patients. Patients will receive a module for psychoeducation, a module for sound stimulation and a module for the daily assessment of tinnitus (tinnitus diary).

Status: already developed but not yet being exploited

Type of output/innovation: New product; New service (except consulting ones); New process; New organisational method;

Table 4: Exploitation goals for the UNITI mobile app

A/A	Exploitation goal	Actions needed
1.	Verify the business potential of the UNITI mobile app.	<p>Provide business support (VIL) to the consortium partners that have developed the UNITI mobile app (UHREG, UKW).</p> <p>Develop a value proposition canvas for the UNITI mobile App.</p> <p>Develop the business models for the UNITI mobile App.</p> <p>Receive feedback from the pilot demonstrations (WP7) with regards to the sustainability and exploitation potential of the platform.</p> <p>Establish an open dialogue with at least three companies working in the healthcare or cybersecurity domain, present the business models and gather feedback.</p> <p>Disseminate the SPHINX toolkit and its value to a wide target audience.</p>



2.5 UNITI Randomised Clinical Trials

Description: One of the objectives of UNITI is to conduct a multicentre Randomised Clinical Trial (RCT) with a combination of interventions, including Cognitive Behavioural Treatment (CBT), Sound therapy, Structured Counselling and Hearing Aid fitting. The most important research outputs from the RCTs are the following:

- Results from one of the biggest RCTs in tinnitus / new methodological benchmark for tinnitus trials.
- First proper combination of therapeutic interventions for tinnitus (targeting different organ levels).
- If single or a combinational therapy is more effective as a treatment for tinnitus.
- Which type of single intervention or which specific combination of treatments produces superior results.
- Demographic, psychological, audiological, electrophysiological, and genetic patient data from different countries; all treated with interventions harmonized over all participating centers.
- The UNITI-RCT represents a very, if not even one of the most important factor of the entire UNITI-Project, since many important parts of other UNITI workpackages are integrated - e.g., gathering of blood samples for genetic analysis, recording of data for in-silico models, validation of the DSS, implementation of the developed UNITI mobile applications (m-health).
- Potential of reapplication of standardised UNITI-RCT methodology for future research projects.
- The used interventions in the UNITI-RCT have the potential for brief or even prolonged tinnitus suppression as well as to help people to better cope respectively live with their tinnitus.
- Increase of already established international reputation in research and clinical practice.

Status: under development

Type: Improved methodology and treatment approaches; Significantly improved product; New product; Significantly improved service (except consulting ones); Significantly improved process; Significantly improved organisational method; Other

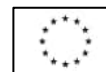


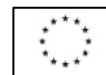
Table 5: Exploitation goals for the UNITI RCTs

A/A	Exploitation goal	Actions needed
1.	Wider adoption of the methodological approaches and best practices of the UNITI RCTs	<p>Prepare scientific publications with the results of the RCTs.</p> <p>Create a technical document with best practices, new methodological approaches and lessons learned for tinnitus treatment.</p> <p>Present the results of the RCTs to key stakeholders in the tinnitus domain. Results will be presented to at least 100 doctors (through the TRI Academy online seminar series).</p> <p>New PhDs and Post-docs.</p> <p>Disseminate the UNITI Tinnitus database.</p> <p>Improvement tinnitus treatments / development of new treatment strategies.</p>

2.6 UNITI Genetics

Description: UNITI will combine data from genetics and protein analysis with clinical research to improve diagnosis, prognosis and selection of personalized therapy in chronic tinnitus patients. The discovery of the genetic contribution to tinnitus is a major scientific challenge. The following are expected to be the most important outputs:

- Generation of a short list of candidate genes
- Proximity Extension Assay (PEA) will be used to search for protein biomarkers for tinnitus in a case-control study including Swedish patients with tinnitus.
- Generation of predictive genetic data towards personalisation of tinnitus treatment: Whole Genome Sequencing (WGS) will be conducted in patients participating in the RCT, who will provide relevant consent. Saliva samples will be used as source of DNA to perform WGS in the patients recruited in the RCT. Samples will be sequenced, after quality inspection. The goal is to obtain common (located in non-coding regions) and rare variants (exon) to analyse their potential interaction and the effect on the therapeutic intervention. To this end, WGS will be performed in order to generate SNV and structural variants. These variants will be used to generate an integral genomic dataset in tinnitus patients.



- Generation of predictive blood biomarker data towards personalisation of tinnitus treatment: ELISA or ELLA will be conducted on a selected set of biomarkers identified in 6.3. using plasma samples collected from patients participating in the RCT. These biomarkers will be investigated in order to determine whether they are associated with positive outcome in the RCTs.

Status: under development

Type: Significantly improved product; New product; Significantly improved service (except consulting ones); Significantly improved process; Significantly improved organisational method; Other

Table 6: Exploitation goals for the Genetics

A/A	Exploitation goal	Actions needed
1.	Wider exploitation of the results of the work in Genetics	Preparation of scientific publications that present the results. Collection of unique data on genetic and blood biomarker in tinnitus. Preparation of demonstration materials and dissemination of these materials to appropriate target audience. Lessons learned and best practices.

2.7 Socio-economic impact of tinnitus

Description: The current status of the scientific literature highlights a serious lack of studies estimating in detail the economic burden of tinnitus to healthcare systems, patients, their families and society. Identifying the economic burden of tinnitus in various cost categories is crucial to better understand tinnitus healthcare organization and treatment implementability in current practice in various countries and consequently reduce unnecessary costly and ineffective treatment strategies for patients and healthcare systems.

Status: under development

Type: Significantly improved product; New product; Significantly improved service (except consulting ones); Significantly improved process; Significantly improved organisational method; Other

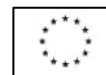


Table 7: Exploitation goals for the socio-economic impact of tinnitus

A/A	Exploitation goal	Actions needed
1.	Wider exploitation of knowledge on the costs for tinnitus treatments	Preparation of scientific publications with the results of the cost study. Preparation of demonstration materials / policy recommendations with the outcomes of the study and dissemination of these materials to appropriate target audience / policy makers.

2.8 Assessment of UNITI outputs/innovations

In principle, through the different UNITI outputs the project will prove to be impactful and beneficial to the field of tinnitus research and the European population and their health, well-being and quality of life in several ways. Overall, UNITI has a huge impact with regards to advancing the level of knowledge and skills in the tinnitus field, as well as raising awareness of ongoing issues in the management of tinnitus and the socio-economic challenges it poses. These insights will be impactful far beyond the duration of the UNITI project and clearly transcend the tinnitus field, impacting on other domains as well.

The methodology that is used for assessing the UNITI outputs/innovations is based on the Innovation Radar approach. A questionnaire (Appendix 1) was distributed to all WP leaders. The aim of the questionnaire was to identify the most important outputs/innovations of every WP, and to assess their innovations potential.

There are outputs that have very impactful research results such as the RCTs, the Genetics, and the socio-economic impact of tinnitus. These results should be appropriately disseminated to key stakeholders (tinnitus clinical centres, doctors, tinnitus patients, tinnitus associations, policy makers etc.).

At the same time, there are tools and methods (Discovering mHealth User Neighbourhoods, Interactive Exploration of mHealth User Data With Multimodal Similarities) with very high research impact on the tinnitus domain and the results can be transferred to other domains as well. These results should be appropriately disseminated to key stakeholders and at the same time they should be exploited so that key stakeholders can also make use of these tools.

Finally, there are outputs with more clear commercialisation potential. The **UNITI mobile app** can be clearly used for commercial purposes. A large number of individuals have registered in the app and it could potentially target to be disseminated to more than 30,000 patients. UNITI will also disclose innovative knowledge on the predictive tinnitus model generated from high numbers of patient data in the databases and utilize it directly by creating a novel integrated **CDSS**. Usability of the tools to be implemented will enable clinicians, with no technical background, to utilise them effectively and to integrate them in their everyday practice.

The following figure (Figure 2) provides a short summary on the main UNITI outputs and their exploitation paths.

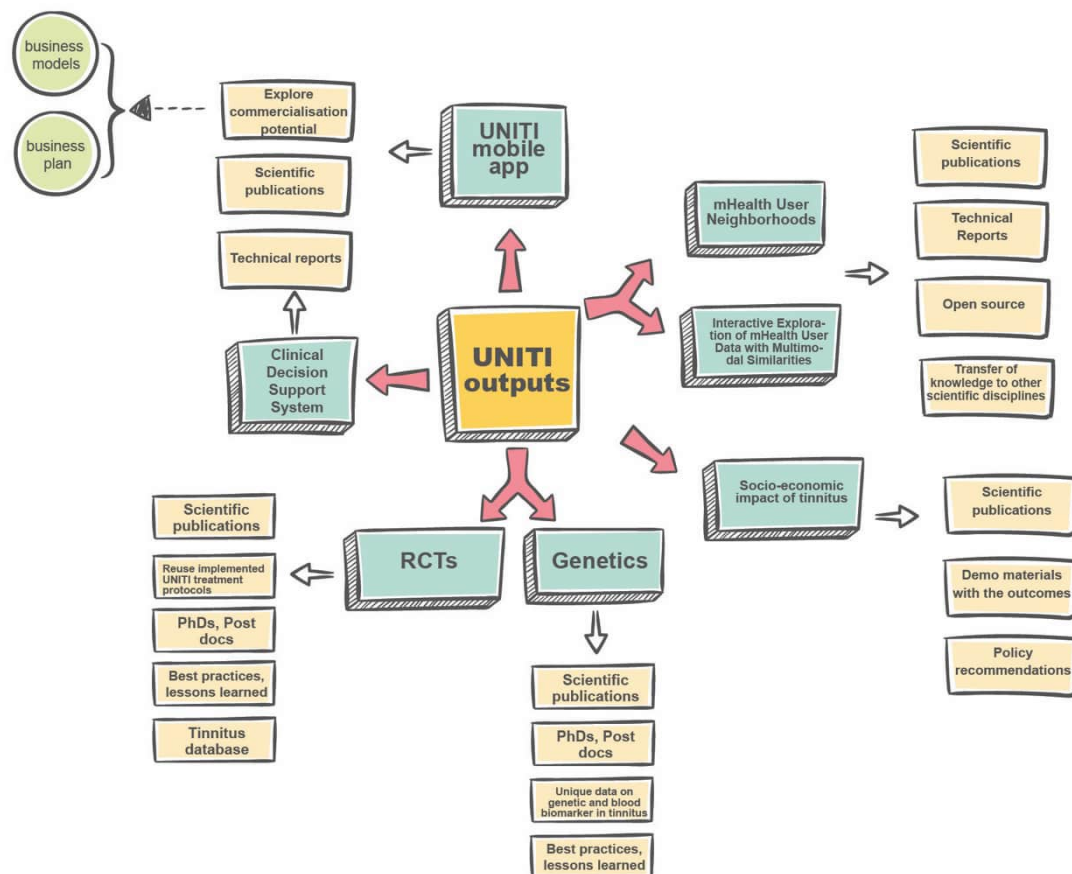


Figure 2: UNITI outputs and exploitation actions

3 SWOT analysis

This is a first attempt to specify the Strong and Weak Points of UNITI as a project as well as any possible Opportunities and Threats from the related environment and area. This



“Strengths, Weakness, Opportunities and Threats” (SWOT) analysis of the project allows identifying where the UNITI project stands and its real potential. This will also assist in the successful implementation and exploitation of the project outcomes.

In the next version of this deliverable, an updated SWOT will be presented and a separate SWOT analysis will be conducted for every exploitable outcome of the project.

Table 8: First UNITI SWOT analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> + Well balanced consortium with strong publication records. + Involvement of tinnitus patients through all the UNITI phases. + Largest RCT in Tinnitus Research Worldwide, + More than 10,000 patient records in different databases. + Genetics. 	<ul style="list-style-type: none"> • IPRs involved in collaborative EU projects. • Potential gap between research objectives and market needs. • Sometimes research activities might be too slow to meet the market opportunities.
Opportunities	Threads
<ul style="list-style-type: none"> + Tinnitus affects more than 10% of the general population. + Integrated systems approaches are still missing to correlate patients' characteristics to predict responses to combinatorial therapies. + No universally effective and accepted tinnitus treatment available. 	<ul style="list-style-type: none"> • Tinnitus is a heterogeneous condition and complex in many ways. • Failure to validate the CDSS in the RCTs. • Lack of usability / applicability of the tools. • CDSS adoption by stakeholders. • Lack of a good plan for the sustainability of the tools. • Securing the privacy rights of patients is an integral and important aspect.

4 Intellectual Property Rights

According to “World Intellectual Property Organization (WIPO)”⁴, Intellectual Property Rights (IPRs) are the legal rights which result from intellectual activity in the industrial, scientific, literary and artistic fields. IPRs cover two main areas:

- industrial property (inventions: patents, utility models; trademarks; industrial designs and protected designations of origin), and

⁴ <http://www.wipo.int/>



- copyright (represented by literary, musical, artistic, photographic and audio-visual works).

In UNITI, as in every other EU research project, there are two IPR issues that need to be handled. First of all, **the management of the pre-existing know-how (background IPRs)** that exist in terms of commercialisation of the final product/service/result, and secondly **how the knowledge generated within the project (foreground IPRs) should be protected** by the UNITI consortium after the end of the project. This section provides a first analysis of these issues (keeping in mind that the project is still in progress and the project outputs have not been yet completed).

Background IPRs are Intellectual Property Rights that existed before the beginning of project. It is knowledge held by participants prior to their accession to the Grand Agreement, as well as any IPRs which are needed for carrying out the project. In UNITI, there are Background IPRs reported by the consortium and stated in the UNITI Consortium Agreement.

Foreground IPRs are usually results, materials and knowledge generated in the project. They are IPRs that are generated within the project period and owned by the participant who generated them. When foreground is generated jointly, it is jointly owned, unless participants concerned agree on a different solution. In UNITI foreground IPRs are divided in two categories:

- The ones that were generated within the project period and belong to the UNITI Consortium such as the project logo and the project acronym.
- The ones that were generated within the project period and belong to participant(s) who generated them.

For the first category (IPRs belonging to the UNITI Consortium) we identify the following:

- The **project logo**, and the **project acronym** (UNITI) belong to the UNITI consortium. After the end of the project, the logo and the acronym will belong to the members of the consortium that are interested in the sustainability, exploitation and commercialisation of the project's results.

For the second category (Foreground IPRs belonging to one or more partners), we identify the outputs that have exploitation potential. A preliminary analysis of the IPRs of these outputs is presented in the Table below. A more thorough analysis will follow on the next version of this deliverable (D8.3 – M39).

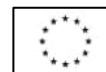


Table 9: Preliminary analysis of the IPRs involved in UNITI outcomes

UNITI output	Partners Involved	Licensing Options
UNITI CDSS	ICCS	Non-free.
UNITI mobile App	UKW, UHREG	Non-free.
Discovering mHealth User Neighbourhoods	MAG	Open source
Interactive Exploration of mHealth User Data With Multimodal Similarities	MAG	Open source
Results from the UNITI Randomized Clinical Trials	UHREG, UOA, CHA, GRA, KI	The research results will be publicly available through scientific publications, best practices, new methods. The contributors will be mentioned.
Genetics	GRA, KI	The research results will be publicly available through scientific publications, best practices, new methods. The contributors will be mentioned.
Socio-economic impact of tinnitus	VIL, MIL, UHREG, UOA	The research results will be publicly available through scientific publications. The contributors will be mentioned.



As the project is still in progress and the development and validation of the different outputs is still pending, the table above cannot be considered final. The next (and final) version of this deliverable (D8.3 at the end of the project) will include an updated version of the above table, and clarify in more detail exploitation paths, as well as who developed what and under which terms exploitation of each component is possible.

5 Exploitation actions already implemented

To effectively promote the UNITI outputs and address how they will reach the target audiences, UNITI has established a dissemination and exploitation strategy. UNITI has selected the kind of tools and channels that are going to be utilised to realise the project's dissemination and exploitation actions. Various online and offline means, direct and indirect, are necessary to make the project activities and results available to the target groups. Such methods are manifold, including online options (website, emails, social media), mass media and networks (media presence, social networks, partners' networks etc.), or offline tangible actions, like events, posters, brochures etc. Depending on the project's audiences the adequate set of methods are jointly being employed.

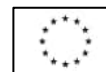
5.1 UNITI Publications

Publications are the most significant element for UNITI exploitation strategy; they constitute an important exploitation tool that informs and engages the UNITI community about and with the projects' procedures, methodologies and outcomes. So far 24 scientific publications have been published and are available on the project website here: <https://uniti.tinnitusresearch.net/index.php/research/scientific-publications>

5.2 UNITI project website

The project's website (<https://uniti.tinnitusresearch.net>) operates as the major source about the project's identity, goals and actions, from which every stakeholder category can be informed. In other words, UNITI website is a central dissemination and exploitation tool of the project providing the main results of the UNITI research and outcomes. In particular, the UNITI website aims at:

- Providing information about the project, its main objective, description of the produced outputs and knowledge, publications, latest news and upcoming events in which UNITI will participate, information about project partners and related projects introduction with



a link to their websites, subscription to project’s newsletter, social networks and contact info.

- Presenting information to stakeholders so that they will understand the reasons to get involved and how they can participate in the project’s activities.

So far, more than 50 news items have been published on the UNITI website, informing the audience about the status of the project and the progress of the main exploitable outputs.

5.3 UNITI collaborates with TRI Academy

UNITI, in collaboration with Tinnitus Research Initiative is organising a series of online training activities. From September 2021, there is a tinnitus seminar every third Wednesday of the month. Each online seminar consists of two lectures and lasts approximately 60 minutes. The participation is free for everybody, and recordings of the events are available on the UNITI website. So far, six Episodes were held. In the future, the most important UNITI outputs will be presented through these online seminars to a wide target audience. The plan is to sustain these type of tinnitus academies (online or in-person) even after the end of the UNITI project.

5.4 Future activities and individual exploitation plans

In this section we present a summary of all the activities that need to be carried out during the last year of the project in order to maximize the exploitation, sustainability and business potential of the key UNITI project outputs. In order to successfully implement the exploitation and sustainability plan that was presented in the previous sections the following actions will be conducted:

A/A	Exploitation activity	Who?	When?	KPIs
1	Workshop on guiding the consortium on exploitation prospects. The objective is to familiarise the partnership with exploitation and sustainability terms and guide them on developing their strategy to exploit the UNITI outputs both at individual level and at the	All consortium partners	M30	A list with all the exploitation actions that each partner is willing to undertake during the last year of the project. Monitor these actions.



	level of the consortium as a whole.			
2	Targeted calls with technical and scientific partners where the process of building a business case is explained	Technical partners and the Exploitation team	M30	Technical partners include their tools at their portfolio. 1-2 business models developed.
3	Clinical partners present the results of the RCTs	Clinical partners	Between M36-M39	At least two scientific publications and one guidelines / best practice document.
4	Organise a mini workshop to develop the UNITI mobile apps and the UNITI CDSS business models	UHREG, UKW, VIL, ICSS	Between M32-M34	Presentation of business cases for the UNITI mobile app and the UNITI CDSS
5	Distribute to all partners the exploitation questionnaire	All consortium partners	M36	All consortium partners complete the exploitation questionnaire
6	Identify key policy recommendations and best practices	All partners	M39	Policy recommendations identified and validated by the consortium
10	Disseminate and Exploit the UNITI outputs	All partners	M36-M39	Implement at least 10 (9 local and 1 EU) dissemination activities
11	Present the UNITI outputs to at least 2 TRI online Academy seminar series	All partners	M36-M39	At least 100 participants in each seminar should be informed about the UNITI outputs.



6 Partners' exploitation activities and impact

In UNITI we undertake all measures and tools to pursue the goal of “opening the eyes” and “guiding” project partners through to a structured process of successful exploitation. All partners have already become familiar with the terms such as what is an exploitation plan, what is sustainability etc., and all partners are doing their best to make the knowledge generated during the project available to a wide target audience. An exploitation workshop will also take place on M30 of the project, with the aim to make all partners familiar with the dissemination/exploitation procedures, and to discuss the plan on how to best exploit all the UNITI outputs.

Below we present a preliminary analysis of the impact and exploitation paths for UNITI partners. An updated analysis will be presented in D8.3:

Clinical centres (UHREG, UOA, CHA, GRA, KUL, KI):

- Possibility of reusing implemented UNITI treatment protocols and the EU tinnitus database in all clinical partner sites.
- Reapplication of standardised UNITI RCT methodology for future research projects, thereby enhancing the comparability across the European Research Area and potentially worldwide in the long term.
- Continue using the UNITI mobile app to implement Ecological Momentary Assessment from tinnitus patients.
- Further increase of already established international reputation in research and clinical practice by being participant of UNITI and the largest RCT in tinnitus.
- International visibility and recognition as specialized tinnitus clinic.
- Immediate benefits for all staff members by participating in international consortium due to cooperation and networks formed, enabling fruitful scientific exchange.
- PhD students, post-docs and senior post-docs are benefiting from outstanding publication record and will be able to use UNITI's scientific outcomes for research and industry career advancement, e.g. by gaining academic degrees or through established industry contacts.

Technical partners (MAG, UKW, ICCS):

- Enhancement of existing technological expertise in terms of delivering secure and interoperable solutions on e-health related tools and services.



- Utilisation of UNITI's technical solutions in future research projects.
- Technical knowledge transfer of UNITI's scientific frameworks to other medical related projects and conditions as well.
- Application of a variety of modern data analysis tools on the largest clinical data set in tinnitus.
- Profiting from extension of network with clinical partners and possibility of extensive publishing in domains of medicine and data science increasing international reputation.
- Gaining further expertise and momentum in the relevant areas of personalised treatment, mHealth and decision support systems.
- Expansion of international networks and cooperation in tinnitus research.
- Increasing the international visibility as an institution advancing technical solutions in medicine.
- PhD students, post-docs and senior post-docs will benefit from outstanding publication record and will be able to use UNITI's scientific outputs for research and industry career advancement, e.g. by gaining academic degrees or through established industry contacts

Genetic research (GRA, KI):

- Collection of unique data on genetic and blood biomarker in tinnitus.
- Reapplication of standardised UNITI research methodology in current and future research projects.
- Re-utilisation of gathered genetic data for further analyses with potential future techniques.
- Establishment of the institutions as leading organisations in the tinnitus genetics field worldwide.
- Expansion of international networks and cooperation in tinnitus research.
- International visibility and recognition as leading scientific institution for genetics on tinnitus.
- PhD students, post-docs and senior post-docs will benefit from outstanding publication record and will be able to use UNITI's scientific outputs for research and industry career advancement, e.g. by gaining academic degrees or through established industry contacts.

Epidemiological research (MIL):



- Reapplication of standardised UNITI research methodology for future research projects, thereby enhancing the comparability across the European Research Area and potentially worldwide in the long term.
- Further increase and strengthening of national and international reputation in tinnitus epidemiology.

SMEs (VIL,

- UNITI to enrich and further develop practical and digital innovative solutions for the growing and demanding healthcare sector.
- Gaining valuable experience in highly relevant area of tinnitus research and treatment.
- Increase of international visibility and reputation of SME through participation in UNITI consortium, likely adding to attraction for future commercial investors or academic partners on national and international level.
- Position in international research world and secure future clients and cooperating partners in Europe and worldwide.
- Become professional advisor to start-ups potentially deriving from UNITI.

7 Conclusions

This document aims to set the ground for the successful exploitation and sustainability of the UNITI project results. It describes the main project outcomes in order to identify potential exploitation opportunities. It gives a first SWOT analysis of the UNITI project and a preliminary analysis on the IPR issues involved. Finally, the first thoughts of the UNITI partners on how they plan to exploit the project results is presented.

With this document we have set the environment for the dissemination and exploitation of the UNITI research outputs and for the identification of the outputs that have commercialisation potential. For these outputs the value propositions will be defined, and appropriate business and sustainability models will be developed. The implementation phase (close to the end of the project) will present the individual and co-operative exploitation plans of UNITI project partners. It will also build upon the selected business and sustainability model(s) towards a plan for actions to ensure the sustainability of the project outputs (tools, methods and research) after the end of the project. Both the results of the experimentation phase and of the implementation phase will be presented in the next version of this deliverable: "D8.3".