D8.11

Exploitation Plan and Business Outlook Version 3

Version
V1.0

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Project	**Deliverable**
MED1stMR	D8.11
Project number	**Deliverable Lead**
101021775	USE
Type of Action	**Related work package**
RIA	WP8
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01.06.2021	Public
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	Actual submission
	31.07.2023

Versions

Version	Date	Author(s)	Description
V0.1	28/03/2023	Birgit Harthum (USE)	First Draft
V0.2	17/08/2022	Birgit Harthum (USE) Gerhard Helletzgruber (USE)	Content Addition
V0.3	09/09/2022	Gerhard Helletzgruber (USE) Birgit Harthum (USE)	Additions after Workshops
V0.4	15/06/2023	Birgit Harthum (USE)	Review Version
V0.5	June-July	Partners	Review Partners – online via MS Teams
V0.6	17/06/2023	Birgit Harthum (USE)	Incorporation of feedback
V0.7	19/07/2023	Helmut Schrom-Feiertag (AIT)	Feedback from Coordinator
V0.8	24/07/2023	Birgit Harthum (USE)	Incorporation of feedback
V1.0	31/07/2023	Vendula Rajdlova (AIT)	Final Formatting & upload

Report Review

Version	Date	Reviewer(s)	Statement
V0.5	June-July 2023	Consortium	Online Review on MS teams
V0.7	19/07/2023	Helmut Schrom-Feiertag (AIT)	Review by Coordinator AIT

RajdlovaV
31.07.2023

HSchrom
31.07.2023

List of Acronyms and Abbreviations

Acronym/ Abbreviation	
AIT	Austrian Institute of Technology – MED1stMR Coordinator
BPD	Business Plan Development
DoA	Description of the Action
EC	European Commission
ES	Exploitation Strategy
ESS	Exploitation Strategy Seminar
GA	General Assembly
HRB	Horizon Results Booster
IP	Intellectual Property
IPR	Intellectual Property Rights
KER	Key Exploitable Result
MFR	Medical First Responder
MR	Mixed Reality
USE	USECON – MED1stMR partner
VR	Virtual Reality
WP	Work Package

Relation to Objectives
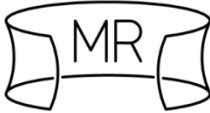
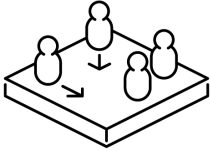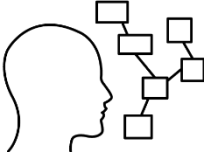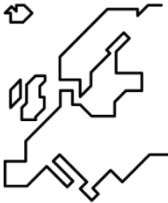| Objective	Description
	Obj. 1: Pioneering MR training approach for enhanced realism The mixed reality (MR) solution is one of the 3 main Key Exploitable Results (KERs) that build the base of the exploitation plan. Especially the MR training tool is very important for the exploitation strategy as it builds the heart of the MED1stMR solution.
	Obj. 2: Effective training scenarios and a training curriculum Objective 2 represents one of the 3 key exploitable results of the project and therefore plays an important role in the exploitation plan of the project as it is a part of the complete solution. The training scenarios and the definitions of how to execute training in the VR and how to achieve the learning goals are a relevant USP for the commercial success of the project.
	Obj. 3: Physiological signal and trainee behaviour feedback loop and smart scenario control Together with ten mixed reality solutions, the dashboard for the trainer and its features are a very important exploitation factor of the project.
	Obj. 4: Position the pioneering MR training approach across Europe Without a dissemination strategy, exploitation is not possible. The interplay of these two is very important for the exploitation success of the project, even after the end.

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1 Executive Summary

Exploitation in MED1stMR is an ongoing task throughout the whole project. The reports are divided in four deliverables (a very first overview in M06, a second version in M17), with the third report at hand (D8.11 – M26) and the final by the end of the project (D.12 – M36).

The 3 main key exploitable results are:

- KER 1 – MR training system
- KER 2 – Smart wearables (with biosignal sensors)
- KER 3 – Training framework & guidelines

1.1 Relation to other deliverables and tasks in MED1stMR

Table 1: The work and the document build on results from the following deliverables.

No.	Title	Information on which to build
-	Grant Agreement	First definitions and rules regarding exploitations
-	Consortium Agreement	First basic agreements on exploitation
D8.6	Knowledge and IPR management plan – Version 1	The general guidelines regarding IPR management defined in this document build the base for all versions of the exploitation plan. (D8.9 - 8.12)
D8.7	Knowledge and IPR management plan – Version 2	The second version of the IPR contained details about the KERs used in the exploitation strategy of MED1stMR
D8.9	Exploitation Plan and Business Outlook, Version 1	The basic exploitation plan defined for MED1stMR builds the base for D8.11.
D8.10	Exploitation Plan and Business Outlook, Version 2	The results stated in D8.10 are the next cornerstone in developing and executing exploitation within the project
D1.1	Project Manual including Quality Assurance Guidelines	The basic project guidelines also apply to the definition of the exploitation plan within the project.

Table 2: The results of this work will be incorporated into the following work and developments.

No.	Title	Basis for
D8.8	Knowledge and IPR management plan – Version 3	IPR management and exploitation plans are dependent on each other respectively build on each

		other – therefore the deliverables will be linked to each other.
D8.12	Exploitation Plan and Business Outlook - Version 4	Further versions of the deliverable at hand through the course of the project.
D8.15	Dissemination Activities	As the exploitation covers a detailed description of planned results and is an ongoing process, the dissemination activities will be influenced by this in terms of description of the results and advantages of the solutions etc.

2 Introduction

MED1stMR aims to develop an innovative user-friendly mixed reality (MR) **training solution** for **medical first responders** (MFRs) including biosignals and performance measurement to combine medical patient simulators with virtual environments and smart scenario control options.

Exploitation is a major goal of the project especially for the time after the end of the project. As many technology partners are involved in the project, the common strategy is important for steps as a consortium. In the versions of the exploitation plan (D8.9, D8.10, D8.11 (at hand) and D8.12 (planned by M36) the public information on exploitation of the MED1stMR project is gathered. Confidential information is published in the IPR deliverables (D8.6, D8.7 and D8.8 (upcoming)).

Table 3: Overview of Exploitation & IPR-related deliverables ordered by the due date.

Nr.	Name	Due	Level	Status
D8.6	Knowledge and IPR management plan – Version 1	M03	Confidential	Accepted
D8.9	Exploitation Plan and Business Outlook - Version 1	M06	Public	Accepted
D8.10	Exploitation Plan and Business Outlook - Version 2	M17	Public	Accepted
D8.7	Knowledge and IPR management plan – Version 2	M18	Confidential	Accepted
D8.11	Exploitation Plan and Business Outlook - Version 3	M26	Public	At hand
D8.8	Knowledge and IPR management plan – Version 3	M34	Confidential	open
D8.12	Exploitation Plan and Business Outlook - final	M36	Public	open

3   Exploitation Plan

Based on the results in the previous exploitation-related deliverables and the recommendations from the Horizon Results Booster Seminars (Exploitation Strategy Seminar (ESS) and Business Plan Development (BPD) – results see mainly D8.7, the focus of the exploitation work from M18 (in M18, the last version of the exploitation (D8.7) was submitted) to now (M26 – when the deliverable at hand was submitted) was laid on the forward development of the KERs and their characterization tables as well as identifying advantages and USPs for further exploitation, dissemination and communication work within the project. The following chapters describe the activities and processes as well as an overview of new (public) results generated within the consortium.

4   Exploitation Activities last period

4.1   Exploitation Workshop Vienna

This workshop took place in Dec 2022, M19, right after the submission of D8.10 the second version of the exploitation plan. As this was right after we received the last HRB seminar results, the recommendations of the HRB were the main focus of the consortium work related to exploitation.

First, we decided to work on the problems and definitions to be able to define a list of key advantages for the MED1stMR solution. As our end users represent early adopters and their view on the solution is important for commercial success after the end of the project, these definitions are highly valuable for further work.

The confidential results will be submitted with D8.8 and the joint selection of advantages is visible in table 4 in this document at hand and described below.

4.2   Advantages of Mixed Reality Training

Based on the Horizon Result Booster Seminars (see D8.10) we decided to work on the USP and the advantages of mixed reality.

This was a twofold focus – On the one hand, the general advantages of mixed reality training in comparison to current simulation training (desktop, class, and real-life exercises). On the other hand, the USP of the MED1stMR solution was also developed.

All possible advantages were gathered during the GA in Vienna (Dec 2022 – list see table 4) and used for different dissemination activities as the general demonstration slide deck for dissemination work of the partners as well as a dedicated social media campaign in March 2023 (see e.g.: https://www.linkedin.com/feed/update/urn:li:activity:7042026313657856000; https://www.linkedin.com/feed/update/urn:li:activity:7038060949248847872 etc.)

The advantage and consequently the USP of the MED1stMR solution is a relevant exploitation result and necessary for communication and exploitation of the product after the end of the project. Therefore, we decided to have the identified advantages ranked by our consortium members. By this we can focus on the main advantages and see an evolvement over the time of the field trials. We started during the GA in Madrid (M23 – results see below) and will do another ranking at the GA in Heidelberg (M28 – will be reported in D8.12) and the Field trial in Thessaloniki (M32) to be able to compare the results. This decision was based on the recommendations of the Horizon Results Booster Seminar to focus on selected advantages and the GA Vienna (see below).

4.3 Report on Exploitation Workshop Madrid

Based on different pre-discussions and as a result of the HRB (see D8.10) USPs and general advantages of the MED1stMR mixed reality solution were identified. As the GA in Madrid took place before the start of the field trials and also before a higher number of medical first responders are able to train with the system, we did a workshop on the ranking of the identified advantages.

The method used was a workshop method. Each partner attending the GA (online or in person[1]) received 5 dot-shaped stickers and "voted" for his/her most important advantage by sticking the sticker to the most relevant advantage – all advantages from the list were printed as a statement on paper and distributed on tables in a clearly visible way. After this, all dots were counted, and the advantages were ranked according to the votes.

The results are visible in table 4, but to sum it up, the top 5 advantages ranked by the Med1stMR consortium are:

1. End user involvement (needs & requirements) - for an end user-oriented solution
2. Save on material & space & human resources – cost efficiency
3. Train the impossible (kids, elderly, complex environments, fire, noises, unpredictable situations, etc.)
4. Realism & higher immersion through virtual environment instead of post-its or descriptions
5. Mixed Reality instead of VR only - haptic experience (the sense of touch a manikin & tools for higher learning effects through higher immersion)

These advantages are now being used as USPs or key benefits in dissemination and exploitation material for events or meetings with and beyond consortium members as well as for other dissemination material like videos, explanations, social media campaigns, etc.

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[1] online participants sent the votes via email to the WP8 lead and the results where then integrated in the calculation

Figure 1: Consortium members at GA Madrid (M23) ranking the list of advantages identified at the GA Vienna (M19)

Figure 2: Consortium members ranking advantages of MED1stMR

Table 4: Identified Advantages (result of GA Vienna M19) and Ranking from the GA in Madrid (M23) - MED1stMR Consortium View

Identified Advantages	Results - mentioning GA Madrid April 2023
End user involvement (needs & requirements) - for an end user-oriented solution	21
Save on material & space & human resources – cost efficiency	20
Train the impossible (kids, elderly, complex environments, fire, noises, unpredictable situations etc.)	20
Realism & higher immersion through virtual environment instead of post-its or descriptions	15
Mixed Reality instead of VR only - haptic experience (the sense of touch à manikin & tools for higher learning effects through higher immersion)	15
Can be used as preparation for large-scale real-life training	12
Tailored scenarios and adaption even during training possible	11
Considering stress as a relevant factor in training	10
Infinite assets & environments – flexibility (selection, start anytime, stop anytime etc.)	7
Measuring & visualising the trainees' biosignals based on scientific results (e.g. stress algo)	6
Safe training environment	4
Behavioural feedback loop for smart scenario control (AI based scenario steering possible to lower trainer tasks)	4
Full-service approach: Providing training guidelines & didactical concepts in addition to the technology	3
Automated After-Action Review (e.g. no evaluation of manual recorded data necessary)	2
Enabling evidence based-decisions through automation of measurement	2
Group performance included	2
Replace post-it-based injuries and manual preparation of the flow	1
Focus on processes, management, communication, etc. (what and not how)	0

4.4 Decision- and Policy Maker Landscape

To be able to work on the target group of the MED1stMR solution and to be able to contact decision and policy makers for the project FTs and the final conference, the end users of the consortium gave an overview on the decision and policy maker landscape in the field of medical first responders. USE gave the following instructions to the presenters:

You as an organisation want to introduce a mixed reality simulation tool to train for MCIs with your MFRs

- What are the necessary steps?
- Who decides?
- Who needs to be involved?
- What guidelines and laws are applicable / need to be adapted (within your organisation, outside from higher levels)?
- What decision makers are relevant?
- What policy makers are relevant to convince – what do they need to adapt?
- Think about the tool/ technology but also the changes regarding: training guidelines, internal training rules and processes, labour laws, works council agreements, ethical considerations, work insurances etc.
- Do you have already experience with something similar or at least comparable (e.g. other new technology or new training approaches)
- Etc. – whatever you think is necessary in this context – focus on policy makers (national and EU wide)

The results will be submitted with the confidential D8.8 and will be also used in D8.5, Strategies for policy makers.

5 Report on Exploitation Actions – current status

The following table summarises the update on exploitation actions done and planned since the beginning of the project.

*Note: **Independent** from the adapted **status**, the* grey *entries have already been available in the pre-version of the plan (D8.10) and the black entries have been newly added in the version at hand (D8.11).*

Table 5: List of exploitation actions done since the beginning of the project.

Action	Who	When	Status	Overview results/status
Establishing IPR tool	USE	July 2021	done	Excel tool was established and first checked by the consortium
D8.6 – IPR plan	USE & all	August 2021	done	Reviewed by consortium & submitted
Horizon Booster ESS workshop & results	all	November 2021	done	The report will be created by EC and sent to us for further use
Establishing an adapted I&E tool based on the IPR tool	USE	November 2021	done	Sent to partners for check
D8.9 first version of the Exploitation plan	USE & all	November 2021	done	Reviewed by consortium & submitted
Send out a request for a bi-annual report on IPR and Exploitation issues to the consortium & the current status of the tool	USE → all	November 2021	done	Additions made to the I&E tool
Plan & execute workshop at GA Zurich based on input from Horizon Results Booster ESS	USE → all	December 2021	done	Additions made to the I&E tool
HRB – Business Plan Development Webinar	USE/ AIT with HRB	May 2022	done	Discussion with HRB and partners; Report by HRB
Discussion on Lean Canvas and Business Plan & IPR at GA Thessaloniki	USE & all	Mid-June 2022	done	Additions for the BPD submission and the I&E tool
HRB – BPD Seminar with Consortium	all	June 2022	done	Discussion with HRB and partners; Report by HRB

HRB – BPD Seminar – Final Report	all	August 2022	done	Input for I&E tool and upcoming workshops
D8.10 Exploitation plan V2	USE & all	October 2022	done	Reviewed by consortium & submitted
D8.7 Knowledge and IPR management plan – V2	USE & all	November 2022	done	submitted
Exploitation & IPR Workshop at GA Vienna	USE & all	Dec 2022	done	Input for further phases expected
Hololight - Meeting on possible collaboration / first get to know each other	USE	Dec 2022	done	Follow up emails exchanged – further meetings planned after FTs
Work on USP & Advantages	USE & all	Feb 2023	done	Input for KERs table & dissemination activities
T-Systems - Discussing options of the product	USE	March 2023	done	Follow up emails sent & invitation to FT & Final Conference
Policy- and Decision Maker Landscape	USE & all		done	See above
Ranking of Advantages – Status in Madrid (GA)	USE & all	April 2023	done	See table 4
JOIN annual meeting – discussing product options MED1stMR	JOIN	May 2023	done	Follow up planned after FTs
D8.11 Exploitation plan V3	USE & all	July 2023	At hand	submitted
Exploitation Workshop GA Heidelberg	USE & all	September 2023	planned	
Ranking of Advantages – Status in Heidelberg (GA/FT)	USE & all	September 2023	planned	
Ranking of Advantages – Status in Thessaloniki (FT)	USE & all	January 2024	planned	
D8.8 Knowledge and IPR management plan – V3	USE & all	May 2024	planned	
D8.12 Exploitation plan final	USE & all	May 2024	planned	

6 Conclusions

The last 8 months of exploitation work in MED1stMR mainly focused on detailing the KER definitions to prepare for the field trials. Some results will also be published in D8.8 as they are confidential. The main outcome of this period is a list of advantages identified and ranked by the consortium. Furthermore, the consortium shared knowledge on the valuable decision and policy maker landscape in the field of medical first responders. Furthermore, initial meetings have been arranged and conducted with companies interested in the MED1stMR solution for potential partnerships and/or other cooperations and additional medical first responder organisations were involved. This focus will be also important for the field trials and the final conference, as these are major events for dissemination but also exploitation of MED1stMR.