

WHOLODANCE

Whole-Body Interaction Learning for Dance Education

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Deliverable 9.3

Self-assessment Plan

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Short Description of this Deliverable

The Self-Assessment Plan represents a best practice which the Coordinator (P1 Lynkeus) has adopted in all the projects in which it has been involved. Thanks to the self-assessment plan, all the WP leaders have a clear mean – defined by themselves – to evaluate the outcome of their respective effort, comparing it with the expected results at different project's time-points. This approach gives the Consortium a clear tool for understanding the actual implementation level, making it possible to acknowledge the existence of delays and thus ultimately allowing the timely implementation of appropriate mitigation strategy. Finally, the Self-Assessment plan constitutes an objective tool of evaluation and understanding of the project status for the external reviewers.

Methodological Note

The present self-assessment plan is the result of a joint effort of all consortium partners. In particular, the WP leaders were heavily involved in defining the most appropriate means of evaluation of the progress of each task.

The Self-Assessment should be considered as a dynamic process: for this reason, the set of indicators implemented in the current version of this document will undergo appropriate periodic updating, with the aim of assess, validate or modify the chosen indicators.

The procedure: WPs performance indicators and self-assessment plans

The procedure followed consisted of two key steps:

1) On the basis of the existing WPs tasks, the first step has been the request to each WP Leaders to define, for each of these tasks, a relevant – and possibly quantitative - measurement processes/unit, useful to assess the progress of a specific task.

2) On the basis of the measurement process/unit defined in the first step, a subsequent series of correlated indicators has been defined. These indicators are numerical values which represent the expected outcome in specific time-points of the project: two values have been provided, one for the minimum acceptable result, and one for the maximum expectation.

As a results, it will be possible to compare the actual results at a certain time-point of the project with the forecasted results defined in the self-assessment, thus having a clear and immediate understanding of the progress of the project compared with the initial plan.

Both the measurement process/unit and the indicators are provided in the dedicated tables in the following pages of the present document.

Both qualitative and quantitative indicators have been used, depending on the nature of the specific task.

Rationale of the project's work breakdown structure (per activities)

As a guidance to the document, it is useful to refer to the work breakdown structure:

- WP1 - Learning Models and Technical Requirements 2 - ATHENA RC Led
- WP2 - Multimodal Sensing and Capturing Analysis 3 - MOTEK
- WP3 - Semantic and Emotional Representation Models 4 - POLIMI
- WP4 - Automated Analysis of Multimodal Features and Similarity Search 6 - Peachnote GmbH
- WP5 - Data Integration & Data Analytics 2 - ATHENA RC
- WP6 - Multimodal Rendering, Holographic / volumetric displays Development, and Whole Body Interaction Interfaces 3 - MOTEK
- WP7 - Evaluation and Validation of ICT-based Learning [Months: 5-36] COVUNI
- WP8 - Communication, Dissemination & Exploitation [Months: 1-36] LYNKEUS
- WP9 - Coordination & Management [Months: 1-36] LYNKEUS

Brief Presentation of the Overall Structure of the work plan

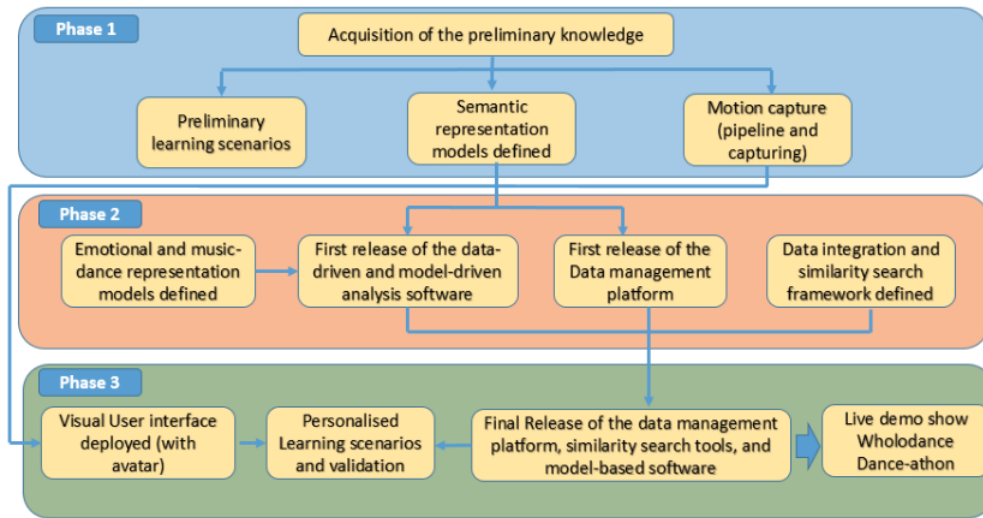
In order to facilitate the reading of this document, it has been deemed useful to report – for reference -the project plan, as defined in the Description of Action.

The WhoLoDancE work plan is conceived to accommodate the specific implementation needs, in order to optimise interaction and integration among the different components of the project, thus ensuring the achievement of the overall expected results.

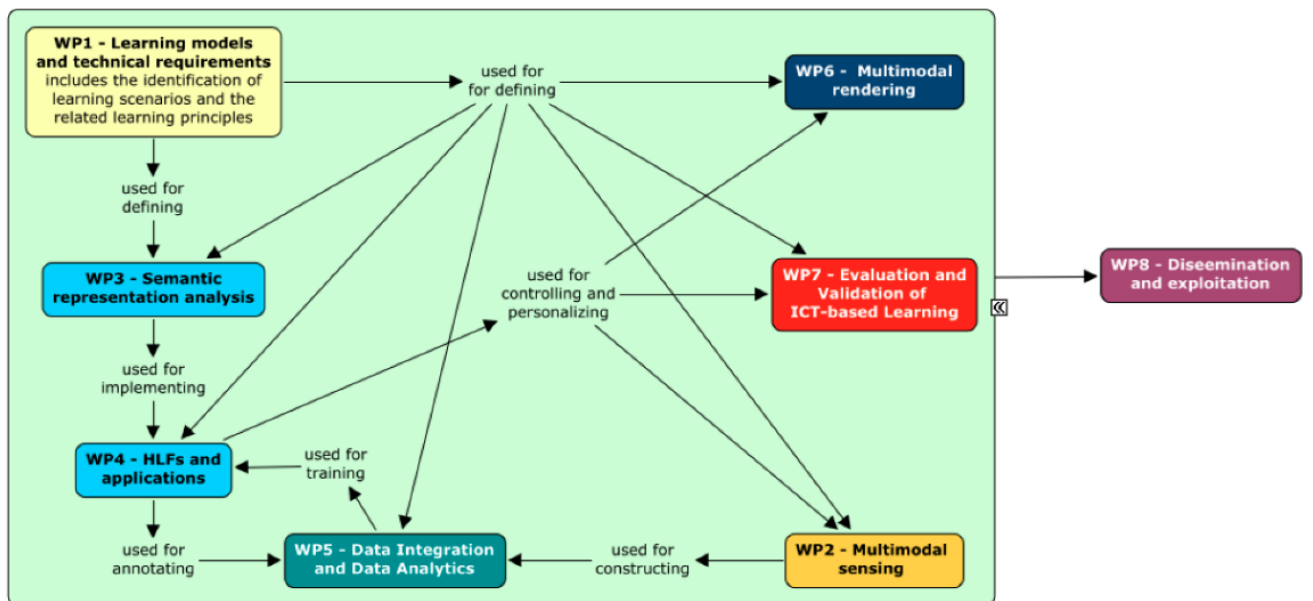
First Phase (M1-M12) – Preliminary definitions and ground-truth data acquisition: the first phase, running from M1 to M12 of the project, will deal with the acquisition of the preliminary knowledge coming from the end-users, thus making it possible to have a first definition of the learning scenarios (preliminarily evaluated by the end-users), as well as a definition of the different users' profiles. At the same time, an embryonic definition of the semantic representation models will be deployed. Finally, the pipeline for the motion capture process will be developed and the data acquisition stage of the capture process will be completed. At the end of this phase, the first Milestone will be reached (Milestone 1 - Preliminary definitions and ground-truth data acquisition).

Second Phase (M13-M24) – Models, platform, and similarity search basic development: the second phase will lead to the definition of the emotional representation and music-dance representation models, as well as to the preliminary deployment of data-driven and model-driven analysis software (with relevant libraries defined). Furthermore, the data management platform will be released and tested in its alpha version, and the data integration and similarity search framework will also be defined. At the end of this phase, a functioning mockup graphical user interface will be demonstrated. The Second Milestone will be reached (Milestone 2 - Models, platform and similarity search basic development).

Third phase (M25-M36) – Visual User interface and data-driven models, tools and platform deployed – learning scenarios validated: the third and final phase of the project will mainly deal with the deployment of the software and hardware adaptation needed for the deployment of the visual and interactive user interface (with the multi-modal avatar). The mockup GUI built in the second phase will be finalised. The interface will be subsequently validated through learning experience scenarios completed on-purpose. Furthermore, during this phase, the different systems (data management platform, similarity search tools, model-based software, with final libraries) will be delivered. Finally, the WhoLoDancE Dance-athon will be organised to disseminate the project results in a public event, conceived of as an artistic performance and demo-live show of the system. At the end of this phase, the Third Milestone will be reached (Milestone 3 - Visual User interface and data-driven models, tools and platform deployed – learning scenarios validated – final dissemination event for public outreach).



Interdependence among the different work packages



Self-Assessment WPs Plans

WP1 - Learning Models and Technical Requirements [Months: 1-16]

WP Leader: Athena

Task	Objective's Description	Measurement Process/Unit	Indicator M12		Indicator M24		Final Goal M36
	S-E Month/Task Leader		L	H	L	H	
T1.1	State of the Art Survey	<ul style="list-style-type: none"> Number List of previous work and related projects in using ICT for Whole Body Interactions for relevant objectives. 	5	10	5	10	8
	[M1-M6][Athena]						
T1.2	Interviews of Learning Experts, Dance Practitioners and Technology Providers	<ul style="list-style-type: none"> Number of completed questionnaires Number of interviews 	20	40	20	40	30
	[M1-M6][Covuni]		5	15	5	15	8
T1.3	Dance and ICT based Learning Workshop	<ul style="list-style-type: none"> Number of Workshops Total Number of Attendees 	1	2	1	2	2
	[M3-M6][Athena RC]		20	40	20	40	40
T1.4.1	Definition of Learning Scenarios	<ul style="list-style-type: none"> Number of scenarios 	4	12	4	12	8
	[M6-M12][Athena]						
T1.4.2	Requirements Elicitation for Application Scenarios and Interface Definitions with Respect to Framework Integration	<ul style="list-style-type: none"> Number of Requirement 	20	50	20	50	40
	[M6-M12][Peachnote]						
T1.5	Technical Requirements for the Data Acquisition	<ul style="list-style-type: none"> Number of Motion Capture sessions Number of dance use-cases (genres) 	1	3	1	3	3
	[M1-M9][Athena]		3	5	3	5	4
T1.6	Definition of the High Level Features Required for the scenarios	<ul style="list-style-type: none"> Number of High Level Features 	8	14	8	14	12
	[M3-M9][Athena]						
T1.7	User Profiling and Modelling for the Personalized Learning Scenarios	<ul style="list-style-type: none"> Number of User's Profile Characteristics 	5	10	7	12	9
	[M10-M16][Athena]						

WP2 - Multimodal Sensing and Capturing Analysis [Months: 2-23]

WP Leader: Motek

Task	Objective's Description	Measurement Process/Unit	Indicator M12		Indicator M24		Final Goal M36
	S-E Month/Task Leader		L	H	L	H	
T2.1.	Recruitment protocol and informed consent form	Percentage of Competition of the Recruitment protocol and informed consent form	100 %	100 %	100 %	100 %	100%
	[M1-M3][Covuni]						
T2.2.	R/D – development of the pipeline that will enable the proper creation of a blend-able motion capture repository	Percentage of Competition of the pipeline development for the blend-able database	100 %	100 %	100 %	100 %	100%
	[M2-M5][Motek]						
T2.3.	Capture	Number of motion capture sessions	2	4	2	4	3
	[M4-M7][Motek]						
T2.4.	Data Curation	Percentage of Competition of the data curation	90%	100 %	100 %	100 %	100%
	[M8-M9][Motek]						
T2.5.	Avatar Construction	Percentage of Competition Avatar construction	50%	70%	90%	100 %	100%
	[M9-M15][Motek]						
T2.6.	Skeleton Fitting (retargeting) and visualization	Percentage of Competition of Skeleton Fitting (retargeting) and visualization	0%	0%	90%	100 %	100%
	[M16-M17][Athena]						
T2.7.	Post Processing	Percentage of Competition of Post Processing	0%	0%	70%	100 %	100%
	[M18-M22][Motek]						
T2.8	Cross range devices, scalability and real-time data processing	Percentage of Competition of Cross range devices, scalability and real-time data processing	90%	100 %	100 %	100 %	100%
	[M2-M7][Motek]						

WP3 – Semantic and Emotional Representation Model [Months: 1-30]

WP Leader: PoliMi

Task	Objective's Description	Measurement Process/Unit	Indicator M12		Indicator M24		Final Goal M36
	S-E Month/Task Leader		L	H	L	H	
T3.1.1.	Development of semantic representation models	Percentage of Completion of the representation models	60%	70%	90%	100%	100%
	[M4-M16][Athena]						
T3.1.2.	Development of emotion representation models	Percentage of Completion of emotion representation models	60%	80%	90%	100%	100%
	[M7-M18][Athena]						
T3.1.3.	Joint music-dance representation models	Percentage of Completion of Joint music-dance representation models	0%	0%	90%	100%	100%
	[M12-M24][PoliMi]						
T3.1.4.	Inter- and intra-network representation models	Percentage of Completion Inter- and intra-network representation models	70%	100%	100%	100%	100%
	[M7-M12][UniGe]						
T3.2.1.	Musical signal modeling	Percentage of Completion of Musical signal modeling	90%	100%	100%	100%	100%
	[M1-M6][PoliMi]						
T3.2.2.	Motion signal modeling	Percentage of Completion of Motion signal modeling	80%	100%	100%	100%	100%
	[M1-M12][Motek]						
T3.2.3.	Modeling signals coming from body sensors and environment sensors	Percentage of Completion of signal modeling (signals coming from body sensors and environment sensors)	80%	100%	100%	100%	100%
	[M4-M12][UniGe]						
T3.2.4.	Video signal modeling	Percentage of Completion of Video Signal Modeling	80%	100%	100%	100%	100%
	[M4-M12][UniGe]						
T3.2.5.	Intra-and inter-network signal modeling	Percentage of Completion of Intra-and inter-network signal modeling	80%	100%	100%	100%	100%
	[M1-M12][UniGe]						
T3.3.1.	Analysis methodologies: data-driven solution	Percentage of Completion of Data-Driven Analysis Methodologies	30%	60%	80%	100%	100%
	[M4-M24][PoliMi]						
T3.3.2.	Analysis methodologies: model-driven solutions	Percentage of Completion of Model-Driven Analysis Methodologies	30%	60%	80%	100%	100%
	[M4-M24][PoliMi]						

T3.3.3.	Analysis methodologies: intra-network-driven solutions	Percentage of completion of intra-network-driven analysis Methodologies	30%	60%	80%	100%	100%
	[M4-M24][UniGe]						
T3.3.4.	Analysis methodologies: inter-network-driven solutions	Percentage of completion of inter-network-driven analysis Methodologies	30%	60%	80%	100%	100%
	[M4-M24][UniGe]						
T3.4.1.	Development of a SW library for emotional and expressive analysis from musical signals	Percentage of completion of the SW library for emotional and expressive analysis from musical signals	10%	30%	60%	80%	100%
	[M7-M30][PoliMi]						
T3.4.2.	Development of a SW library for Emotion Analysis from full-body movement and multimodal data	Percentage of completion of the SW library for Emotion Analysis from full-body movement and multimodal data	10%	30%	60%	80%	100%
	[M7-M30][UniGe]						
T3.4.3.	Development of a Software Library for Non-Verbal Social Signals Analysis	Percentage of completion of the SW library for Non-Verbal Social Signals Analysis	10%	30%	60%	80%	100%
	[M7-M30][UniGe]						
T3.4.3.	Multimodal analysis of qualities in individual dance	Percentage of completion of multimodal analysis of qualities in individual dance	10%	30%	60%	80%	100%
	[M7-M30][UniGe]						

WP4 – Automated Analysis of Multimodal Features and Similarity Search [Months: 3-30]

WP Leader: Peachnote

Task	Objective's Description	Measurement Process/Unit	Indicator M12		Indicator M24		Final Goal M36
	S-E Month/Task Leader		L	H	L	H	
T4.1.1.	Base algorithms and generic functionality for similarity search, live-indexing and clustering methods	Percentage of Completion	60%	100%	100%	100%	100%
	[M4-M10][Peachnote]						
T4.1.2.	Consolidation of HLF data sources for consistent model building	Percentage of Completion	0%	10%	90%	100%	100%
	[M11-M18][Athena]						
T4.1.3.	Definition and evaluation of suitable structuring of search indices for application scenarios	Percentage of Completion	50%	90%	90%	100%	100%
	[M11-M18][Peachnote]						
®T4.1.4	Implementation of suitable components to encapsulate common similarity search and indexing contexts	Percentage of Completion	0%	10%	80%	100%	100%
	[M12-M24][Peachnote]						
T4.2.1.	Adaptivity & Personalization Algorithm implementation	Percentage of Completion	0%	10%	60%	90%	100%
	[M12-M30][Athena]						
T4.2.2.	Generic middleware architecture design and implementation	Percentage of Completion	25%	50%	90%	100%	100%
	[M7-M20][PoliMi]						
T4.2.3.	Component specification and implementation for application scenarios	Percentage of Completion	0%	0%	80%	100%	100%
	[M12-M24][PoliMi]						
T4.2.4.	Parametric functions of time in affine space	Percentage of Completion	15%	30%	80%	100%	100%
	[M7-M24][UniGe]						

WP5 – Data Integration & Data Analytics [Months: 1-36]

WP Leader: Athena

Task	Objective's Description	Measurement Process/Unit	Indicator M12		Indicator M24		Final Goal M36
	S-E Month/Task Leader		L	H	L	H	
T5.1.	Building and deployment of data management platform	Percentage of completion	15%	30%	30%	60%	100%
	[M1-M36][Athena]						
T5.2.	Conceptual Modeling and Annotation of Data	Percentage of completion	30%	50%	80%	100%	100%
	[M1-M24][Athena]						
T5.3.	Data modeling, integration and management	Percentage of completion	30%	50%	80%	100%	100%
	[M1-M24][Athena]						
T5.4.	Integration and interoperability with external services, systems and applications	Percentage of completion	0%	0%	40%	70%	100%
	[M13-M30][Athena]						
T5.5.	Integration of EyesWeb platform	Percentage of completion	0%	20%	30%	60%	100%
	[M6-M30][UniGe]						
T5.6.	Global integration within the WhoLoDance data management platform	Percentage of completion	0%	0%	20%	60%	100%
	[M13-M32][Athena]						
T5.7.	Platform testing & validation and maintenance plan specification	Percentage of completion	10%	20%	20%	60%	100%
	[M1-M32][Athena]						

WP6 – Multimodal Rendering, Holographic / volumetric displays Development, and Whole Body Interaction Interfaces [Months: 21-36]

WP Leader: Motek

Task	Objective's Description	Measurement Process/Unit	Indicator M12		Indicator M24		Final Goal M36
	S-E Month/Task Leader		L	H	L	H	
T6.1.	Research and selection of possible solutions for immersive holographic displays	Percentage of Competition of Research and selection of possible solutions for immersive holographic displays	0%	0%	40%	70%	100%
	[M21-M27][Motek]						
T6.2.	Development of overlay of intersection detection and feedback (visual, auditory and other) between real and virtual dancers	Percentage of Competition of Development of intersection overlay detection and feedback	0%	0%	0%	0%	100%
	[M27-M32][Motek]						
T6.3.	Development of the Adaptivity & Personalization System	Percentage of Competition of Development of the Adaptivity & Personalization System	0%	0%	10%	30%	100%
	[M21-M35][Athena]						
T6.4.	Technical validation of the developed display and intersection models	Percentage of Competition of Technical validation of the display and intersection models	0%	0%	0%	0%	100%
	[M34-M35][Motek]						

WP7 – Evaluation and Validation of ICT-based Learning [Months: 5-36]

WP Leader: Covuni

Task	Objective's Description	Measurement Process/Unit	Indicator M12		Indicator M24		Final Goal M36
	S-E Month/Task Leader		L	H	L	H	
T7.1.	Usability and Learner's Experience Evaluation	Number of methods - taking account of social, ethical and legal requirements, timeframe for delivery and community to be reached	2	4	4	5	6
	[M7-M36][Athena]						
T7.2.	Evaluation of Learning process through the interfaces	Number of testers reflecting appropriate range for usable feedback and evidence of impact potential	3	7	20	40	50
	[M7-M36][Covuni]						
T7.3.	Personalization Evaluation	Number of testers reflecting application of user profile to 'real world' needs provided by the tools – correlation between user need and results	3	7	30	50	80
	[M7-M36][Athena]						

WP8 – Communication, Dissemination & Exploitation [Months: 1-36]

WP Leader: LYNKEUS

Task	Objective's Description	Measurement Process/Unit	Indicator M12		Indicator M24		Final Goal M36
	S-E Month/Task Leader		L	H	L	H	
T8.1.	Dissemination strategy, preliminary Materials	Percentage of Competition of the Graphic Design of the Logo, Website, Posters and Social Network	100 %	100 %	100%	100%	100%
	[M1-M4][Lynkeus]						
T8.2.	Project Web-site	Number of unique accesses on the website	100	150	200	300	500
	[M1-M36][Lynkeus]						
T8.3.	Social media	Number of Unique Viewers on Vimeo Channel	200	500	1000	2000	3000
	[M1-M36][Lynkeus]	Number of Follower on Twitter	30	70	120	250	400
T8.4.	Dissemination events	Number of Workshops	1	2	2	4	5
	[M12-M36][Lynkeus]	Total Number of Attendees	20	40	40	80	100
T8.5.	Seminars, Workshops, Concertation Activities with Other ICT Funded Projects, and Community Liaison and Feedback	Number of Events organized together with other ICT Funded Projects	0	1	1	2	3
	[M1-M36][Lynkeus]						
T8.6.	Newsletter	Number of newsletter released	0	1	1	2	3
	[M8-M36][Lynkeus]	Number of contacts in the mailing list	20	40	50	100	200
T8.7.	Exploitation	Number of meeting for the planning of the exploitation strategy organized	0	1	1	2	3
		Number of assessments of the conformity of the developed devices supervising also accordance with national regulations	0	0	0	1	2
T8.8.	IPR management	Number of Contracts related to IPR finalised	1	2	2	3	3
	[M6-M18][Lynkeus]						

WP9 – Coordination & Management [Months: 1-36]

WP Leader: LYNKEUS

Task	Objective's Description	Measurement Process/Unit	Indicator M12		Indicator M24		Final Goal M36
	S-E Month/Task Leader		L	H	L	H	
T9.1.	Monitoring & Scheduling	Days of delay for the finalisations and submissions of the deliverables with respect to the deadlines	20	10	15	7	5
	[M1-M36][Lynkeus]						
T9.2.	Quality & Reporting	Number of communications regarding quality guidelines	2	4	4	5	6
	[M1-M36][Lynkeus]	Number of communications sent to the project officer regarding updates on the advancement of the project	3	6	6	12	18
T9.3.	Financial Coordination	Percentage of financial matters promptly solved	60%	80%	80%	100%	100%
	[M1-M36][Lynkeus]						
T9.4.	Contractual Management	Percentage of amendments successfully operated to the Grant Agreement in relation to the actual needs of the project	80%	100%	80%	100%	100%
	[M1-M36][Lynkeus]						
T9.5.	Meetings and Communications Management	Number of events directly planned producing related reports included in the dedicated section of the project website	1	2	2	4	4
		Number of events/sessions organized by other partners that have been directly supported with logistics and communications	2	4	4	8	10
	[M1-M36][Lynkeus]	Number of Teleconference organized and managed with related minutes produced and circulated	6	12	10	24	30
T9.6.	Project toolkit	Percentage of completion of the project toolkit including all the relevant material	100%	100%	100%	100%	100%
	[M1-M2][Lynkeus]						
T9.7.	Recruiting of Independent Committee Members	Number of independent Committee members recruited	2	4	6	7	8
	[M1-M3][Lynkeus]						
T9.8.	Risk Management	Percentage of the total risks prevented and appropriately managed	60%	80%	80%	100%	100%
	[M1-M36][Lynkeus]						
T9.9.	Ethics surveillance and management	Informed consent forms revisions performed	0%	100%	80%	100%	100%

D9.3 - Self-Assessment Plan	WhoLoDancE - H2020-ICT-2015 (688865)
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	[M1-M36][Lynkeus]	Percent of ethical issues analysed and successfully solved	60%	90%	80%	100 %	100%
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