

DELIVERABLE

Project Acronym: Brain@Home

Grant Agreement number: AAL-2015-1-134

Project Title: Brain@home: Moving and enhancing brain training for an active life

D7.3 Project Quality Plan

Revision: FINAL

Authors:

Marius PREDA (SIVECO)

AAL Programme		
Dissemination Level		
P	Public	X
C	Confidential, only for members of the consortium and the Commission Services	
O	Other	

Task/WP related to the Deliverable: *WP7/Task 7.2*

Type ¹: *O*

Reviewer(s): *ALL*

Approved by:

Contractual Date of Delivery: July 2016 **Actual Date of Delivery:** August 2016

Abstract: *According to the Description of Action (DoA), the “Deliverable D7.3 provides the quality plan, to ensure delivery of high quality results”*

This deliverable presents the holistic Brain@Home approach for Quality Plan (QP) and Risk Assessment (RA) in the BRAIN@HOME project and the instruments that are to be used in BRAIN@HOME for QP and RA. The document is structured into three chapters: First, an overview is given on the QP and RA Strategy and Plan that are followed within the BRAIN@HOME project. Second, the instruments and tools for QP and RA within BRAIN@HOME and their relationships and conjunctions are introduced. Third, the particular implementations of these instruments in BRAIN@HOME and the related validation and reliability are discussed. The annexes provide all QP and RA instruments including guidelines for their usage (plus voluntary definitions of their generic concepts).

Keywords: *Quality Plan, Risk Assessment*

Project Co-ordinator

Company name : SIVECO Romania S.A.
Name of representative : Monica FLOREA
Address : 73-81 Bucuresti-Ploiesti Drive,
Building C4, District 1, 013685, Bucharest,
RO
Phone number : +4 (021) 302 3300
Fax number : + 4 (021) 302 3391
E-mail : monica.florea@siveco.ro
Website :

¹ Deliverable Type: P (Prototype), R (Report), O (Other)

Versioning and Contribution History

Version	Description of Change	Date
V1.0	Initial draft released to the Partners	31.07.2016
V2.0	Updated released to the Partners	01.08.2016
V3.0	Final version	01.08.2016

Table of Contents

Table of Contents

<i>Executive Summary</i>	5
1 Quality Plan and Risk Assessment Strategy Plan.....	6
1.1 Organizational Project Structure in BRAIN@HOME - Overview	6
1.2 The Concept of Quality Plan and Risk Assessment in BRAIN@HOME	6
1.3 Key Terms: Definitions.....	7
2 Quality Plan and Risk Assessment Instruments	9
2.1 Quality Plan & Risk Assessment Instruments: Classification	9
3 Quality Plan & Risk Assessment Instruments for BRAIN@HOME.....	10
3.1 BRAIN@HOME Meeting Questionnaire.....	11
3.2 BRAIN@HOME Deliverable Relationships Diagram (DRD).....	13
3.3 BRAIN@HOME Deliverable Planning Template (DPT)	14
3.4 BRAIN@HOME SWOT Analysis for Improvement Potential.....	14
3.5 BRAIN@HOME Final Review (DFR)	15
3.6 BRAIN@HOME Document Content Review Template	15
3.7 BRAIN@HOME Interim Report.....	16
3.8 BRAIN@HOME Final Report.....	16
4 Summary and Conclusion.....	16
5 Annex.....	18
5.1 Annex 1: BRAIN@HOME Meeting Questionnaire	18
5.2 Annex 2: Special Risk Identification Template and Special Risk Analysis	20
5.3 Annex 3: SWOT Analysis for Project Improvement Potential.....	21

Executive Summary

This document introduces and explains the Quality Plan (QP) and Risk Assessment (RA) Plan for the Brain@home: Moving and enhancing brain training for an active life (BRAIN@HOME) and all developed and implemented instruments, tools and processes for QP and RA within BRAIN@HOME.

The document is structured into three major chapters:

- First, an overview is given of the **Quality Plan and Risk Assessment Strategy and Plan** that are followed within the BRAIN@HOME project.
- Second, the **Quality Plan and Risk Assessment Instruments** within BRAIN@HOME and their categorizations and interrelations are introduced.
- Third, the particular **Implementations of the QP and RA instruments** in BRAIN@HOME are introduced and discussed regarding their design, validation and reliability, and limitations.

We will show that the Quality Plan Strategy in this project follows a holistic approach, which takes the ISO 9001 into consideration. In this context, all project phases, i. e., analysis, production, and evaluation on all organizational levels (strategic, tactical, and operational) are supported with QP and RA instruments.

In the end of the document, a **Summary** is provided in which the low response rate regarding QP and RA questionnaires particularly is discussed as we actually experienced it as a major challenge in the context of the BRAIN@HOME project.

The **Annexes** provide all QP and RA instruments together with their guidelines.

This particular document may not be understood as a report on the outcomes of QP and RA and their evaluation. The reports on the QP and RA analysis and evaluation are part of the Deliverable D7.3.

The general planning, design and implementation of QP and RA for BRAIN@HOME have been completed leading to this version of D7.3 meeting and fulfilling all the requirements and demands from the DoA.

Finally first general concepts of the developed instruments are included within the annexes. Such general concepts are also voluntary additional work for better and easier sustainability, adaptation and re-usage of the instruments and they will be completed and modified during the BRAIN@HOME project life cycle according to our QP and RA experiences and their analysis and evaluation. In terms of sustainability, those concepts define the developed BRAIN@HOME instruments on a generic context-independent level, so that it is easy to re-use and adapt the instruments within other projects.

1 Quality Plan and Risk Assessment Strategy Plan

In this chapter, the project's structure is analysed first (1.1). In section 1.2 the chosen concept of Quality Plan (QP) and Risk Assessment (RA) are introduced (Quality Planning, QP). Finally, key terms that are frequently used within this document are being defined (1.3).

SIVECO Romania (SIVECO) is leading the Quality Plan and risk assessment and the Task 7.2 (2 PM). Besides SIVECO, all Cluster and WP leaders are amongst the assigned partners for Task 7.2: All associated partners will contribute by supporting the Quality Plan Activities: They will participate in the diverse exercises, provide feedback to the QP team from SIVECO, and as far as part of the QP and RA tools' designs foresee, organize the involvement of the partners that contribute to their Work Packages/Tasks. Due to their higher involvement, the further main QP partners PBN and InfomatiX, will overtake additional smaller roles that are explained in this document.

1.1 Organizational Project Structure in BRAIN@HOME - Overview

The Project Management (including Quality Plan) is responsible for the fulfilment of the contract with the European Commission and thus, also for the coordination of the project as a whole.

To each of the 7 WPs, a WP leader has been assigned who organizes the work. As specific outcomes of WPs, Deliverables are defined. In order to manage the various production processes, several tasks are defined within each WP and which are to be completed within a specific schedule. WP leaders are responsible for the management of their WPs and for the timely and proper delivery of the Deliverables.

For each Task that is defined within the WPs, a Task leader has been assigned, which not necessary is represented by the same organisation as the WP leader. In the Description of Action (DoA), some Tasks are directly related to Deliverables. In such cases, the Task leader is responsible for the production of the specific Deliverable, whereas still, the WP leader is responsible for its proper delivery. In some cases, there are more or less Deliverables to be produced within a WP than tasks are defined. In these cases, the WP leader is fully responsible to coordinate the work that leads to the Deliverables and to deliver the final versions to the Project Manager (PM). Further on, Tasks produce outcomes that are required as inputs for other tasks. Such outcomes may be finalized Deliverables but also can be, e. g., interim work-results or empirical raw data. Some Tasks in the project lead to more than a single Deliverable whereas the DoA partly is unclear which particular Task's actually lead to the Deliverables and how the Tasks are interrelated between each other.

1.2 The Concept of Quality Plan and Risk Assessment in BRAIN@HOME

According to the different organizational levels and types of outcomes, different strategies have to be implemented for Quality Planning (QP), in general and in particular, within the complex project BRAIN@HOME. Thus, the QP team of SIVECO has decided in agreement with the whole consortium not to limit and restrict the quality analysis and evaluation on simple re-active quality assurance of the developed products and deliverables but to design, follow and implement a proactive overarching Quality Plan including a continuous improvement cycle. Therefore the term Quality Plan (QP) is used instead of the term Quality Assurance (QA) that is only one part of an overarching Quality Plan.

In the BRAIN@HOME project, the QP team of SIVCO has chosen and developed a holistic approach for QP and RA, which is in accordance with the international quality standard ISO 9001 and is not limited to measuring and evaluating the quality of the defined end products but also covers the quality of the work processes. All three organizational levels, the strategic, the tactical and the operational level are to be considered in the QP and supported with QP and RA tools according to each of the three fundamental phases of project work, i. e., analysis & planning, development & production, and evaluation, revision & implementation. The IDEA model describes a concept of Total Quality Plan (TQP) and thus encourages to explicitly place emphasis onto the four phases of activity, which are:

Initiate,
Do,
Evaluate, and
Act.

While "*Initiate*" is related to the systematic planning of QP and RA activities (QP), "*Do*" represents the adoption and implementation of QP and RA instruments according to the requirements identified in the phase "*Initiate*", "*Evaluate*" is related to the actual data collection and analysis, and "*Act*" represents the eventually to be taken counter-activities that arise from the results of the evaluation. However, regarding Quality Improvement (QI), which is emphasized through the phase "*Act*", the activity of the QP team is not directly intervening but providing information about identified issues and recommendations for corrective activities by either the PM or the whole project team.

1.3 Key Terms: Definitions

Quality Plan (QP): "coordinated activities to direct support and control the BRAIN@HOME project with regard to quality" (adapted from EN ISO 9001:2008). Quality Plan includes all activities to ensure that the BRAIN@HOME project and all its outcomes and Deliverables are fulfilling the requirements and meeting the best quality. QP within BRAIN@HOME is in conformity with the assigned quality standards (ISO 9001) and includes Quality Assurance (QA) and Risk Assessment (RA).

Quality Planning (QP): "part of QP focused on setting quality objectives and specifying necessary operational processes and related resources to fulfil the quality objectives. Quality Planning includes all activities to ensure that the BRAIN@HOME project and its consortium partners define, agree and approve the Quality Plan (this document) including all the objectives, requirements and instruments for QP in the BRAIN@HOME project. QP corresponds the phase "Initiate".

Quality Assurance (QA): "part of QP focused on providing confidence that quality requirements will be fulfilled". Quality Assurance includes all QP activities within the BRAIN@HOME project measuring and evaluating the BRAIN@HOME project and all its processes, outcomes and Deliverables related to the ongoing development and achieved progress and interim results. QA covers the two phases "Do" and "Evaluate".

Risk Assessment (RA): "part of QP focused on potential and identified risks for the fulfilment of the quality requirements". Risk Assessment includes all QP activities within the BRAIN@HOME project measuring and evaluating the BRAIN@HOME project and all its processes, outcomes and Deliverables related to the potential and identified risks for the future development and progress. RA covers the two phases "Do" and "Evaluate". Annex 2

Quality Improvement (QI): "part of QP focused on increasing the ability to fulfil quality requirements". Quality Improvement includes all QP activities within the BRAIN@HOME project supporting the BRAIN@HOME project and all its processes, outcomes and Deliverables related to the improvement for the future development and progress. RA corresponds the phase "Act".

2 Quality Plan and Risk Assessment Instruments

In this chapter, an overview of the QP and RA plan and of its realization through specific instruments is provided. In section 2.1, we put the single instruments into the context of the BRAIN@HOME project. In order to appropriately monitor the project efforts and risks, the QP team of SIVECO has developed and implemented many QP and RA instruments to support each of the project phases on each of the project levels (strategic, tactical, and operational).

For a standardized QP approach, the ISO 9001 proposes the following steps:

- determine the processes needed for the Quality Plan system and their application throughout the organization,
- determine the sequence and interaction of these processes,
- determine criteria and methods Brain@Home needed to ensure that both the operation and control of these processes are effective,
- ensure the availability of resources and information necessary to support the operation and monitoring of these processes,
- monitor, measure where applicable, and analyse these processes, and
- Implement actions necessary to achieve planned results and continual improvement of these processes.

Thus, our QP/RA-strategy for which we adapted the concept actually is to be considered holistic and of a standardized level of quality. However, the tools/instruments² that are introduced and discussed in the following chapters mainly are related to more formal assessments and does not cover the full range of our QP/RA activities in this project. In extension to those instruments for formal QI, QP, and RA, also “instruments” for rather informal knowledge exchange are frequently used, such as e-mail, telephone, Skype, face-to-face discussions in 1-to-one and group’s situations, observatory participation in online- and face-to-face meetings, etc. Also within more informal scenarios, most of the reporting (and implementing actions in form of providing recommendations) will take place, be it towards single persons (e. g., Task Leaders), the Project Management Board (QP is represented in the PMB and participates in its monthly meetings), groups of persons (e. g., at a WP or Cluster meetings), or the whole consortium (in terms of status reports at consortium meetings).

2.1 Quality Plan & Risk Assessment Instruments: Classification

In this section the QP and RA instruments are put into their context in order to prove the holistic approach taken for QP and RA within the BRAIN@HOME project.

The Instruments are limited to the “formal” instruments that are used to monitor risks and ensure the internal quality of the project. Monitoring the actually reached numbers (of visitors, users, etc.) as success factors obliges the responsibility of the coordinator (see DoA and D7.1, Project Management Plan). Measuring the impact (and indirectly the quality) of the tools that are to be implemented in BRAIN@HOME is part of WP 7.

Ensuring the quality of the repositories and their included resources is not explicitly part of the tasks of the project. However, the project can define quality criteria and implement supportive metadata structures (as recommendations for repository owners and internally, to support e. g., search activities of users) and further tools that commonly can be used/are available to repository

² the terms „tool“ and „instrument“ in this document are exchangeable to some extent as both are related to defined supportive entities/mechanisms. However, in the meaning of this document, an „instrument“ is something more particular (touchable) while the term „tool“ may be understood more generic as a (but not necessarily a particular) instrument.

owners and users (which are tested in terms of acceptability in the context of WP5). While it is possible to define quality restrictions for resources that will directly be attached/uploaded to BRAIN@HOME (what may happen in future), this is difficult in terms of resources from third-party repositories (if applicable).

3 Quality Plan & Risk Assessment Instruments for BRAIN@HOME

For the design of the QP/RA instruments in BRAIN@HOME, different perspectives needed to be taken into consideration. Firstly, in order to fulfil their aim, i. e., supporting the project to reach and keep a high level of quality regarding both, processes and outcomes, the particular situation of the project (as described in chapter 1) needs to be considered; but however, the instruments also need to be accepted and supported by the individuals who shall contribute the relevant information. Thus, secondly, there are demands and limitations of the different stakeholders, which also need to be taken into consideration; in the beginning (Kick-Off meeting), we asked the partners and found the following: While the project manager (coordinator) would like to make the best out of which resources the project has, as well as avoid any risks that could jeopardize the project's progress (thus, he would prefer an as comprehensive as possible monitoring), the partners who mostly do not have assigned a specific contingent of man-months for QP/RA, would like to keep the time-effort that is needed as small as possible (which means they would prefer few simple exercises that can be completed within a very short time). Those two demands somehow are conflicting and thus, a balance needs to be found. Further on, the whole strategy (and instruments) needs to keep flexible enough to implement adjustments if the required level of acceptance cannot be achieved. As for BRAIN@HOME, we decided that in the beginning of the project, all information are to be collected that are relevant to design small and simple instruments, which later on, can repeatedly be used. In this context, the work amount for the partners is larger in the first and a half year of instrument-design and instrument-adjustment but from the second year, the time-effort that is expected from the partners will be quite small. The QP team communicated this strategy and hopes that it is widely accepted.

One major issue regarding QP and RA is related to the reliability of the instruments and the validity of the found data and taken conclusions. Generally, even though, relying on scientific methods Brain@Home, QP and RA are not scientific disciplines. Thus, reliability and validity can hardly be evaluated on a formal level; but known limitations from the used instruments must be taken into consideration.

In the context of QP and RA, most of the investigations base on qualitative investigations. In this context, opinions of individuals are collected (which reflect a current status but could suddenly change), and in terms of manageability, the data are consolidated by the quality manager to clusters of topics, which then can be focused within discussions or even may further be used for designing locally (project/project phase) standardized quantitative surveys. When consolidating individuals' statements into more general topics, the outcome strongly depends on the quality manager understanding of the diversity of aspects, which the statements actually represented.

In general, in BRAIN@HOME, we conduct (formal) surveys only with the full sample, i. e., in terms of a meeting questionnaire, all participants of the meetings explicitly are invited to contribute, and in cases of general risk assessments, all individuals that are involved in the project are the addressed participants. Particularly for the quantitative surveys (but not limited to), the non-response-rate plays a significant role in terms of the validity of survey results. This is a challenging issue, as the non-response-rate in surveys usually is quite high particularly, due the very limited

authorization of the QP team: There is no option to force partners to participate as the QP team has no power to direct work (also see chapter 4). Taking influence thus is just possible by repeated encouragement and keeping the time as short as possible that is needed for the partners' contribution.

In terms of qualitative surveys, in which the participants, e. g., are asked to report of particular challenges or to recommend improvements, the non-response-rate clearly means a loss of information, as less impressions (and perspectives) can be taken into consideration within the evaluation. A ranking of the relevance of related topics on the basis of the number of participants who raised the same (or similar) issues is difficult with a low response rate and surely not fully representative if the non-response-rate is too high (whatever this may mean in numbers³). However, even though the different motivations for participation and/or non-participation cannot be determined, the results anyways indicate a tendency. Just for the interpretation, it needs to be clearly understood that e. g., in an investigation with the aim to collecting objections regarding current developments in the project's context, we can expect that particularly partners will contribute who actually have objections (or, in contrast, some may think that QP/RA anyways is fruitless and thus do not contribute). However, if particular objections are reported, those are to be understood as valid at least from the perspectives of the reporting participants – and such are what we actually like to find. At least on informal basis such are to be further investigated and discussed. In order to raise the level of acceptance of our QP/RA instruments and thus, indirectly the participation rate, we try to establish a relationship of trust (that the contributing partners keep anonymous), communicate the relevance of the investigations for the success of the project, and communicate the (anonymised) results in form of commonly accessible written reports (which might show the partners that their inputs actually are taken into consideration). Additionally on informal level, we communicate results and interpretations/recommendations at meetings and in face-to-face discussions. Beyond that, the QP team has to relay on the support of the project manager and the Cluster, WP, and Task leaders who need to encourage the project partners to contribute.

As for the validity of the instruments (does the outcome actually match the intention?), for some instruments, we adapted instruments that already were successfully established in the contexts of other projects. Conducting test/pilot studies in the classical sense (providing the instruments to a small part of the whole sample) was impossible due missing resources. For the instruments that we newly designed for BRAIN@HOME, the first conduction had to be understood as the pilot testing. Improvements of the instruments need to be implemented on the basis of the actually made experiences within BRAIN@HOME. What we actually will do for all of the tools in order to ensure an as high level of appropriateness (understand ability, manageability, reliability) as possible, was internally distributing the instruments and asking for feedback. In this context, the whole SIVECO team will be involved, as well as the coordinator for a final check.

3.1 BRAIN@HOME Meeting Questionnaire

The BRAIN@HOME Meeting Questionnaire is an instrument that is designed to firstly, evaluate the effectiveness of the meeting organization and secondly to collect input for improvements. The questionnaire was designed on the basis of several already established meeting questionnaires, which we had designed for and used in other EU projects. After it was individualized for the

³ In our experience, when conducting paper-based surveys in face-to-face situations with randomly chosen individuals, a non-response rate of 50 % is quite usual. In online surveys with randomly addressed (mass-e-mails) individuals, the response-rate is to be expected to clearly keep below 10 % (rather 3-5 %). In the BRAIN@HOME questionnaires, the invitations are delivered on a personal level and we all know each other; thus, we expect results at least on the level of average paper-based-surveys in random samples. We aim response-rates around 75 %.

BRAIN@HOME project, it additionally was critically reviewed and improved by the Project Manager (4-eyes principle). One general design criterion, however, was the length and complexity of the questionnaire as this is significant for the acceptance through the partners. As participants, all individuals are to be invited that actually attended the meetings.

The BRAIN@HOME Meeting Questionnaire is to be implemented at all “larger” BRAIN@HOME meetings, i. e., Cluster meetings and consortium meetings. As for the evaluation of most of the other meetings that take place, whether they are online or face-to-face meetings, the QP team is represented and thus, monitors the efficiency (and effectiveness) on informal basis. Additionally, the QP team is in permanent informal contact to the partners in order to continuously look for possible challenges and improvement potential (such informal discussions are not limited to collecting meeting feedback).

The BRAIN@HOME Meeting Questionnaire consists of two blocks, one with 15 closed questions that are to be evaluated on a 5-point Likert Scale and the other one with five open questions, where the partners are supposed to provide recommendations for improvement. Thematically, the closed questionnaire topics are related to the participants’ perceived effectiveness of the meeting regarding organization (location, planning, schedule), their understanding of the project and its objectives (did the meeting help to get a better picture of the project and understanding of the work to be done), general content (raised topics, presentations & discussions), and the depth of content discussion/presentation (were the discussions/presentations helpful in the current situation?). The open questions are designed to give the partners the opportunity to explicitly provide further information and recommendations on what was good and how improvements might look like. The open questions are chosen as follows:

- *Q1: Which part of the meeting did you find most useful and why?*
- *Q2: Regarding each of the topics, has the level of depth been appropriate for this consortium meeting? Which aspects would you have liked to deepen?*
- *Q3: From your perspective, has anything essential kept unmentioned in this meeting?*
- *Q4: What should we keep in mind for future consortium meetings (suggestions for improvements)?*
- *Q5: Do you have any recommendations to improve this questionnaire?*

In order to reflect the design of the questionnaire, the evaluation also is divided into two parts: In the first part, the quantitative data from the closed questions are analysed according to the given answers (absolute values). Additionally, the results of the current and all formerly conducted meeting evaluations are contrasted in order to recognize positive (e. g., in case that corrections were made or former issues turned obsolete) and negative developments. The development analysis bases on percentage values, as the number of participants is expected to vary.

For the first implementations, however, each analysis will focus on the current status as there are not enough data available to recognize developments. Regarding the validity of found developments, another issue is to be taken into consideration for this particular instrument but actually for all further on introduced questionnaires (which adapt the general design of the meeting-questionnaire): During the project life-cycle, the project partners undergo a development themselves before they finally get a realistic view that reflects the actual opportunities and limitations of the project; from being highly enthusiastic (because of the novelty of the project) over being slightly de-motivated (because of the recognized high level of efforts) to slight depression (because decision processes in projects rarely end in the way the individuals would have liked to). In order to get truly valid results, those interim phases firstly would have to be

overcome. Thus, we expect that we will find extreme developments throughout (at least) the first year of the project.

The hitherto implemented BRAIN@HOME Meeting Questionnaire is displayed in Annex 1.

3.2 BRAIN@HOME Deliverable Relationships Diagram (DRD)

In the very beginning, at the Kick-off meeting, we realized that due so many partners and Tasks, the level of complexity of the project was too high for most of the partners to fully comprehend all relationships and dependencies between the 7 WPs of the project. Particularly dependencies of activities across WPs revealed very difficult to understand. The basic idea of this instrument is ensuring that all partners are not just fully aware of such dependencies and related deadlines regarding their own responsibilities (tasks/Deliverables) but also that all who interact through outcomes (across WPs), have the same understanding of required outcomes and dependencies. We recognized that if there is any related misunderstanding between the partners, the complete schedule of the project might suffer. As with 7 partners, 7 WPs, and 31 Tasks that are to be completed (see section 1.1), this project is highly complicated not just in its organizational structure but particularly also regarding cross WP communication and interactions. Thus, the risk is high that misunderstandings could happen and a comprehensive overview regarding own obligations/requirements and offers/demands from other partners is essential for the project's success.

Dependencies that could cause irritations, if not recognized by the partners, on the one hand, can be understood as particular requirements for inputs (interim products) that are needed in order to start or complete a certain task. Such requirements for inputs may not just exist on a general level (a document, however it looks like) but also be related to particular types, forms, and/or contents of outcomes.

The aim of the DRD thus, was twofold, firstly, to ensure that all partners generally are fully aware of dependencies and outcomes, and secondly, have an instrument to share this knowledge as a formally unified discussion basis for further production steps.

In order to reach those aims, we assumed that every WP leader might well be aware of what he actually needs as input in order to complete his own work (input requirements). However, as quite usual in project work, we expected that most partners focused on their own tasks when reading the Description of Action and might have missed some requirements from other partners.

All WP leaders were asked to describe which inputs they expected from others in order to complete their own work (by when, with what kind of contents, and in which form) and of which parts of their own outcomes they were aware that other partners needed those (in which form and by when). The idea of this instrument was that if all partners report what they expect to receive as inputs and plan to provide as outcomes (for others) we do not just get a comprehensive picture of interrelations and requirements but also an understanding where mismatches between requests and offers occur. In order to avoid major irritations during the project's productive time, such mismatches, we found, are the aspects that crucially need to be discussed between the partners.

We could have defined such interrelations by analysing the DoA. However, the DoA must not be understood as a comprehensive description of single production steps but is rather designed as a relatively rough description of tasks along with outcomes. Further on, this project's particular DoA is not fully consistent, as there are tasks that do not lead to Deliverables and others that somehow

lead to more than a single Deliverable (see section 1.1). Thus, a definition of interrelations that fully bases on the DoA might also have been similarly incomplete and inconsistent. We argued that involving each partner's with his own field's expertise, the requirements for the production and completion of the Deliverables (which are the actual outcomes of the project) would be reported on a much higher level of detail than just derived from the DoA.

3.3 BRAIN@HOME Deliverable Planning Template (DPT)

The information regarding the Deliverables that is included within the DoA describes on a very general level what a particular Deliverable is for and what it might include. However, in lack of detail, it neither allows taking conclusions on the actual schedule of the Deliverable production nor on particular steps that are to be taken. We thought that such higher detailed information would turn out very valuable in order to provide a better support to the partners; it would empower us (the QP team) to monitor the progress of Deliverable production and thus, to detect (input-) delays and resulting challenges for the completion of a Deliverable at a very early point of time. Without this information, delays can just be monitored at the rarely defined milestones (DoA) and at the end, when the Deliverables ought to be transmitted. Thus, we designed an instrument that allows partners to define their planned production schedule on an as high level of granularity as needed and possible.

The RA Instrument "Deliverable Planning Template" had two central purposes:

- to support WP Leaders in their planning activities, by providing a concise discussion base, as it encourages (and allows) visualizing all single steps that are planned to be taken in order to finalize a Deliverable, and
- to provide the input for the project manager (coordinator) and the QP team which was necessary to define steps for a proper monitoring of efforts and make sure that the production keeps in line with the planned schedule.

3.4 BRAIN@HOME SWOT Analysis for Improvement Potential

The BRAIN@HOME project consists of 6 partners from 3 different European countries. Each project partner who contributes to the project has an own set of skills and a distinguished role (which may change from task to task) and thus, a unique perspective towards the project. This variety includes a large potential for monitoring and finding ideas on which issues could be improved (at this level, related to particular/individual needs). This potential should not get lost.

The SWOT Analysis is a 2 times QI-exercise with the aim to determine improvement potential for the project facilitation, organization, and management. As participants, each of the individuals working for/within the BRAIN@HOME project are invited to contribute. In four open questions, the participants shall report, what they individually consider being Strengths, Weaknesses, Opportunities, and Threats for BRAIN@HOME.

The category "Strengths" follows two general purposes: First, the partners shall be reminded and aware of the vision and the potential of the project. Second, those "Strengths" are the perspective, the participants should take when thinking about (corresponding) "Weaknesses",

“Opportunities”, and “Threats”: The general question was “What could hinder the project team to fully make use of the potential of those Strengths and which opportunities are not yet used to their full potential?”

In terms of improvement potential (and evaluation), the evaluation focus of the SWOT analysis for project improvement clearly is related to Weaknesses, Opportunities, and Threats. The questionnaire consists of each one question related to one of the four aspects Strengths, Weaknesses, Opportunities, and Threats. Each participant can define up to 5 issues per topic (we considered an amount of five aspects as a reasonable number between the level of required effort and the chance to cover most of the available answer-spectrum), whereas a single issue is mandatory to be defined.

For this purely qualitative exercise, the participation rate plays a smaller role regarding the reliability of the actually achieved results. Aspects that are listed (and explained) by participants generally are to be taken as reliable, as those reflect particular issues related to each participant’s point of view. However, as more participants contribute, as more diverse aspects (variety) are to be expected in return. The investigation does not have the aim to be representative and thus, the validity of the results (in terms of “the results actually reflect the spectrum of opinions of the whole group”) generally plays a minor role. Anyways, in terms of a ranking of the aspects according to their relevance, which is to be done on the basis of the number of participants raising the same (or very similar) issue, validity (a ranking must reflect the average opinion, else, it is meaningless) and thus the response rate actually do play a role: Similar to the already discussed limitations, if the number of participants is too low in the SWOT Analysis, it keeps unclear if just such partners reported back who followed a particular aim, or if the participation actually reflects the opinions of the “standard” project partner (whatever attributes such a “standard” project partner may have). The full questionnaire design of the SWOT Analysis for Improvement Potential can be found in Annex 3.

3.5 BRAIN@HOME Final Review (DFR)

The purpose of this procedure is ensuring a comparable high quality standard throughout all official BRAIN@HOME documents and in particular for all Deliverables. As last step before a Deliverable can be transmitted to the EC, the review process must be completed and passed. Suggested changes by the reviewers are to be implemented (or discussed if not implemented).

The review is to be made by the two reviewers who are assigned (see “Project Management Plan”, D7.1) to each Deliverable as final internal quality control. As for the choice of the two reviewers for each Deliverable, the project manager set up a list of reviewers that allocates project partners who did not contribute to the particular Deliverable. The reviewers may provide more detailed recommendations for improvement as comments and direct changes within the reviewed documents (highlighted with change tracking). Each reviewer has a full week to conduct the review. The review reports and the improvement recommendations are to be sent to the authoring partner, the QP team, and the coordinator.

3.6 BRAIN@HOME Document Content Review Template

The Document Content Review Template is meant to support partners in developing formal criteria for documents in particular scenarios, which require a higher level of detail and possibly more specific viewpoints than the Deliverable Review Template covers. As it was unclear at the

beginning of the project if such particular cases exist at all, and as this template needs to meet very particular requirements, it is to be developed on demand. However, as it is a purely supportive offer, partners optionally can ask the QP team for providing (commonly developing) such a template. The partners did not yet request the development of such a document template.

3.7 BRAIN@HOME Interim Report

Different to the Deliverable D7.3 (this document), which focuses on describing the strategy, tools and instruments that are to be implemented in the context of BRAIN@HOME in order to ensure a high level of Quality, the Interim Report will focus on the actual results of the various implementations of the QP and RA instruments as well as summarize the given recommendations that derived from the various investigations. According to the DoA, the Interim Report in its first version is to be delivered in M18. After a management summary, which will summarize the general outcomes of the various investigations, derived recommendations and taken actions, it will base on the cumulated reports that were written within the first two years of project runtime.

3.8 BRAIN@HOME Final Report

The Final Report is the consequent continuation of the Interim Report and will thus complete the QP and RA for the last year of the project's lifetime. It will summarize the results of and experiences made during the various implementations of the QP and RA instruments as well as include the recommendations that derived from the various investigations, and it will discuss the actions that eventually were taken in order improve the project and/or to counter-act and intervene in case of special challenges. The QP and RA will be a part of the Final Report. According to the DoA, the Final Report is to be delivered in month 30 of the project.

4 Summary and Conclusion

This Deliverable must be understood as the introduction and documentation of all (formal) QP and RA instruments and the underlying Quality concept and the strategy and plan of Quality Plan and Risk Assessment for BRAIN@HOME. It further on introduces all (formal) QP-related processes that are relevant to ensure a proper information flow, the production of high quality outcomes, and that the project keeps in line with the planned schedule.

In this Deliverable, we demonstrated how the Quality Plan and Risk Assessment within the BRAIN@HOME project is defined, designed and conducted based on the developed and implemented instruments. We have introduced limitations of the QP Strategy and the instruments and particularly discussed the issue of non-response rate, which is relevant in order to evaluate the scope and validity of the achieved results.

Additionally to the various instruments that have been described within the document, frequent discussions with the partners (on the different levels) take place in the contexts of online- and face-to-face meetings as well as via Skype calls and e-Mails. The information retrieved from those discussions is communicated to the coordinator if recognized as burning issues and is further on relevant to achieve a better understanding towards some of the results of the questionnaires.

As the QP team further on is represented within the Project Management Board, monthly feedback rounds on the highest organizational level of the project are ensured. Additional

participation of the QP team in various WP and Task related online meetings ensures a permanent progress monitoring and completing the relevant feedback cycles on the operational project level.

5.1 Annex 1: BRAIN@HOME Meeting Questionnaire

BRAIN@HOME Meeting Survey:

This meeting survey template is meant to investigate the opinions of the BRAIN@HOME meeting participants regarding the organization and effectiveness of Cluster and consortium meetings. As result of the survey, potential for improvement for further meetings shall be deduced. After each conducted meeting survey, an evaluation reports is meant to follow, which anonymously displays the participant's opinions and outlines improvement.

The questionnaire itself consists of two pages (15 statements and 5 open questions). However, in order to signalize the system that the questionnaire is completed, please make sure that in the end, you switch to the final deck. Thank you very much for your contribution and understanding.

Part 1: Statements

Please rate the statements in this section according to the following scale

1 = strongly agree, 2 = agree, 3 = little agree, 4 = disagree, 5 = strongly disagree

No.	Statement	1	2	3	4	5
1	I have a clear view on what the project is about					
2	I have a clear view on the proposed outcomes of the BRAIN@HOME project					
3	I have understood how the single parts of the project interrelate					
4	The meeting objectives were clear to me					
5	The depth of the <i>presentations</i> on the different aspects of the project was appropriate in this meeting					
6	The depth of the <i>discussions</i> on the different aspects of the project was appropriate in this meeting					
7	The organizational structure in this project is clear for me					
8	I have a clear view on what my tasks are for the next 6 months					
9	The contents, discussed in this meeting, were relevant for me					
10	The number of raised topics was suitable					
11	The information, received in this meeting, will help improving my own contribution to the BRAIN@HOME project					
12	This meeting helped me to build and share a common vision of the BRAIN@HOME project					
13	I made connections with partners that will help my work					
14	The meeting organization was efficient					
15	The parallel sessions were useful					

Part 2: Open Questions

Brain@Home

Please fill in all of the requested information as detailed as possible!

Q1	Which part of the meeting did you find most useful and why?
Q2	Regarding each of the topics, has the level of depth been appropriate for this consortium meeting? Which aspects would you have liked to deepen?
Q3	From your perspective, has anything essential kept unmentioned in this meeting?
Q4	What should we keep in mind for future consortium meetings (suggestions for improvements)?
Q5	Do you have any recommendations to improve this questionnaire?

Thank you very much for your valuable contribution!

5.2 Annex 2: Special Risk Identification Template and Special Risk Analysis

Please complete the following tables for each task.

Special Risk Identification Template & Critical Aspects Analysis
 (For each Task, the Risk Factors and Critical Aspects are to be defined in separate tables)

Task Tx.1

RISK NUMBER	Status (Active/Inactive)	DESCRIPTION OF RISK	PROPOSED MEASURES	Probability (low, medium, high)	Identified by	Impact	Status

Critical Aspects (crucial for completion of task)	Time (when latest needed to be finalized/available)	Impact (what happens if not finalized/available)	Alternative action (task-internal possible?)	Action (if needed, from outside)

5.3 Annex 3: SWOT Analysis for Project Improvement Potential

In the following, the questionnaire design is shown. While the “personal information” is mandatory to be completed, each of the categories Strengths, Weaknesses, Opportunities, and Threats provides five free text fields of which just the first is mandatory to be completed.

1 SWOT Questionnaire

Determining Improvement Potential on Strategic Project Level

This questionnaire is designed to determine improvement potential but also weaknesses and possible threats on the internal working level of/for the BRAIN@HOME project. It targets the Strategic Level of the BRAIN@HOME project and thus, exclusively focuses on internal processes. This investigation will be conducted at the middle of the project. It follows a process that is designed in two steps: In this current step, the concept of a SWOT analysis has been implemented. A second step follows. Completing the questionnaires should not take more than 10-15 minutes of your time.

How to complete this questionnaire:

Please make sure that the scenario you have in mind is related to the project’s organization, on how partners communicate, interact, and work together. Your answers should not focus on general or Task-related risks. For each of the FOUR content pages (open answers), which are related to Strengths, Weaknesses, Opportunities, and Threats, please at least provide 1 until a maximum of 5 aspects. In order to improve the internal project quality, we urgently need your particular perspective of the project. However, it would be very helpful if you could briefly explain the context of each recommendation. In a second step, the outcomes of this questionnaire will be evaluated according to their potential for the BRAIN@HOME project. The questionnaire will be on paper or online, on the website project.

2 Personal Information

The information asked from you on this page are just for administrative issues and will not be included within the evaluation or given further to any person not involved in the QP team. However, we would like to be able to contact you in case of further questions.

Institution (abbreviation):

BRAIN@HOME Partner Number:

Your Name:

Your Role in the Organization:

Your e-Mail Address:

3 Strengths

*Which **Strengths** do you recognize according to the BRAIN@HOME project?*

Please limit your answers on the consortium, project facilities, and internal processes. Please consider strengths as attributes, which anyways are there, e. g., “the high variety of experiences through a very interdisciplinary team”. You can pick up those again in the context of “opportunities” and develop an idea to what result these strengths can lead. If there is nothing you could imagine being appropriate here to fill in, please write “none” into the first field.

5 Free text **boxes** (indicating 3-4 lines of text but open for more)

4 Weaknesses

*Which **Weaknesses** do you recognize according to the BRAIN@HOME project?*

Brain@Home

Please limit your answers on the consortium, project facilities, and internal processes. Please consider weaknesses as attributes, which anyways are there and should be overcome, e. g., “communication barriers through discipline-specific terms (same terms mean different things)”. If there is nothing you could imagine being appropriate here to fill in, please write “none” into the first field.

5 Free text **boxes** (indicating 3-4 lines of text but open for more)

5 Opportunities

*Which **Opportunities** do you recognize according to the BRAIN@HOME project?*

Please limit your answers on the consortium, project facilities, and internal processes. Please consider opportunities as attributes, which anyways are given, could lead to improvement, but which not necessarily are taken into consideration, e. g., “fostered interdisciplinary discourse could lead to a wider level of acceptance of the outcomes”. If there is nothing you could imagine being appropriate here to fill in, please write “none” into the first field.

5 Free text **boxes** (indicating 3-4 lines of text but open for more)

6 Threats

*Which **Threats** do you recognize according to the BRAIN@HOME project?*

Please limit your answers on the consortium, project facilities, and internal processes. Please consider threats as attributes, which seemingly are not yet taken into consideration but could jeopardize the productivity of the consortium, e. g., “if partners do not (cannot) overcome discipline-specific communication gaps, relevant input gets lost for the project”. If there is nothing you could imagine being appropriate here to fill in, please write “none” into the first field.

5 Free text **boxes** (indicating 3-4 lines of text but open for more)

Thank you very much for your contribution! It will help improving the internal processes in the BRAIN@HOME project.

We soon will invite you to participate in the short evaluation questionnaire where you are asked to evaluate the results of the SWOT analysis according to their relevance/impact. Please be so kind and also contribute to this step as your evaluation is crucial for the final analysis.