Ergebnisse

Umfrage 444828

Anzahl der Datensätze in dieser Abfrage:	39
Gesamtzahl der Datensätze dieser Umfrage:	39
Anteil in Prozent:	100.00%

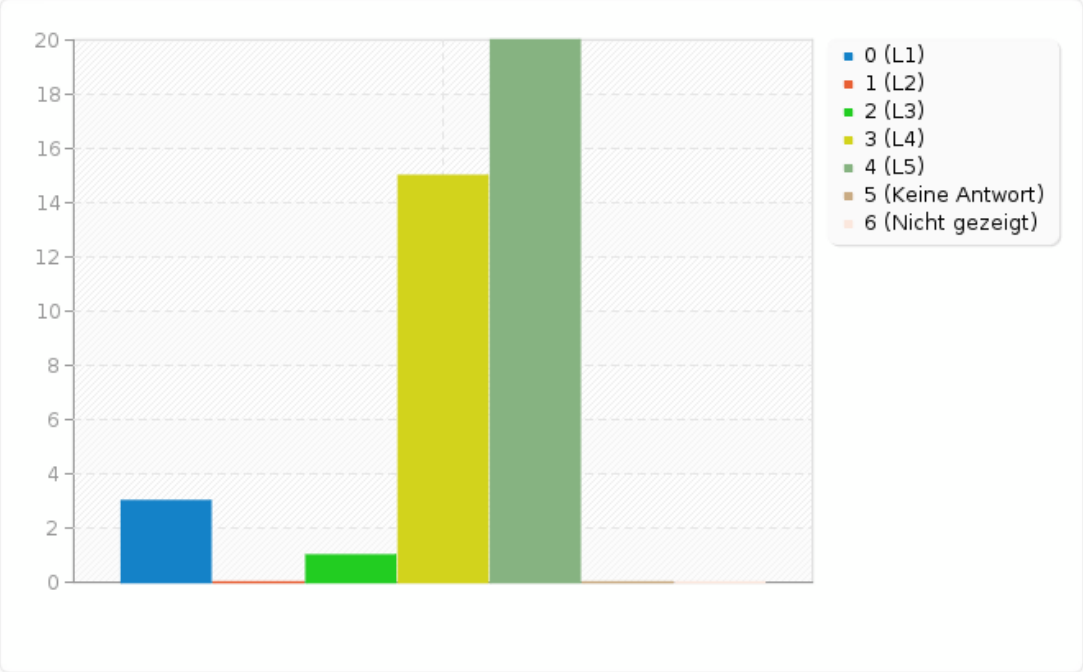
Zusammenfassung für Q1A(Q1A001)[The items with high agreement (green) can be finalized:]

Please indicate whether you agree or disagree with the items for which there had been more than 75% agreement in the second round (see green lines in the supplemental document).

Antwort	Anzahl	Prozent
Strongly disagree (L1)	3	7.69%
Disagree (L2)	0	0.00%
Neither agree nor disagree (L3)	1	2.56%
Agree (L4)	15	38.46%
Strongly agree (L5)	20	51.28%
Keine Antwort	0	0.00%
Nicht gezeigt	0	0.00%

Zusammenfassung für Q1A(Q1A001)[The items with high agreement (green) can be finalized:]

Please indicate whether you agree or disagree with the items for which there had been more than 75% agreement in the second round (see green lines in the supplemental document).



Zusammenfassung für Q1B

Do you have any comments on the items with high agreement? Especially if you disagree it would be helpful if you could suggest changes.

Antwort	Anzahl	Prozent
Antwort	4	10.26%
Keine Antwort	35	89.74%
Nicht gezeigt	0	0.00%

ID	Antwort
27	There are still quite a few typos.
1033	The definition of Dimensionality Reduction seems over-simplified and not strict enough and may cause misunderstanding
1042	Noch ein paar typos. E.g.: - für die Verarbeitung in der Radiomics-Pipeline i zur Verfügung zu stellen. - Export der Bilddaten (z.B. DICOM)r aus dem Datenarchiv (z.B. PACS), um sie in der Radiomics Pipeline nutzen zu können. - Isolation einer oder mehrerer ROIs vom Rest des Bilde (z.B. durch das Ersetzen - Dieser Aspekt dient zur Optimierung des Modells, damit es mittels der selektierten Merkmale das Prädiktionsziel bestmöglichst vorhergesagt. - (whereby it must then be ensured that all aspects mentioned above must be cross-validated, including e.B hyperparameter optimization) a. Hier ist glaube ich nicht automatisch klar, was gemeint ist: - Das Testen kann aber auch mittels Kreuzvalidierung erfolgen (wobei dann sichergestellt werden muss, dass alle oben erwähnten Aspekte kreuzvalidiert werden müssen, inkl. z.B. Hyperparameteroptimierung). => soll es heißen, dass auf jedem cross-validation set extra ein zusätzliches validation set (also pro CV set: train - validation - test) z.B. für Hyperparameter-optimization vorhanden sein sollte? Wäre wahrscheinlich gut, wenn man etwas genauer formulieren könnte, was hier gemeint ist
1043	Aspects for prefiltering of retrospective (longitudinal) imaging data (e.g. filtering criteria for the time frame between scans of longitudinal data, filtering for examined body parts, resolution, modalities) are missing.

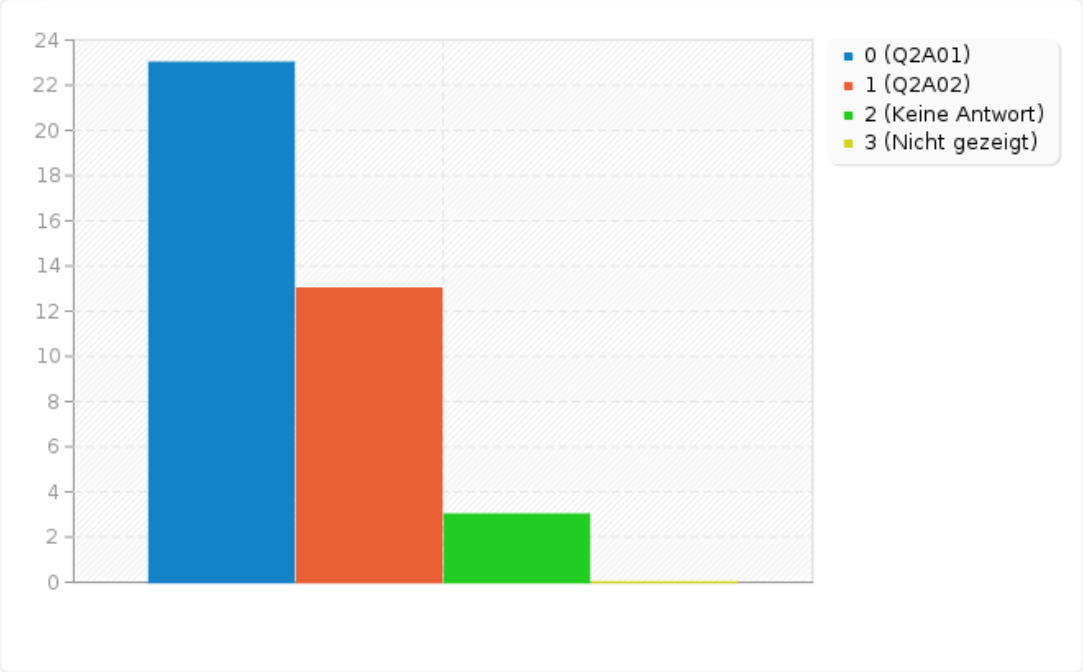
Zusammenfassung für Q2A

How should the aspect “Data format conversion” (Phase “Data management”) be handled?

Antwort	Anzahl	Prozent
Keep as is in its current revised version. (Q2A01)	23	58.97%
Merge it into the aspect “Data transfer and import”. (Q2A02)	13	33.33%
Keine Antwort	3	7.69%
Nicht gezeigt	0	0.00%

Zusammenfassung für Q2A

How should the aspect “Data format conversion” (Phase “Data management”) be handled?



Zusammenfassung für Q2B

Do you have any comments on this aspect?

Antwort	Anzahl	Prozent
Antwort	8	20.51%
Keine Antwort	31	79.49%
Nicht gezeigt	0	0.00%

ID	Antwort
10	Isn't "data transfer and import" part of the data management? (and the other way as you are suggesting)
16	Merging into the aspect "data transfer and import" reduces complexity. Additionally, the conversion and handling of the data formats depends strongly on local (on-site) resources and therefore cannot be standardized.
18	Format conversation is independent of transfer from one site to another.
22	Maybe the following issue is not clear to everyone, and therefore they suggested to merge: "DICOM" to NIFTI conversion it is more about "interpretation" than "conversion": DICOM ist usually slice-based, and we have to correctly interpret the slice position and normal vectors to build a volumetric 3D volume. This is the main reason for conversion, we do not want to perform this parsing and interpretation step every time we load images.
24	not my field of expertise
1038	The phrasing of the text could be further improved to make really clear what this item is about. The term "conversion", e.g., is currently used in different meanings.
1042	It is often neglected, and can be more tedious than expected.
1044	I suggest to join, since hopefully this data format conversion step will get less important with more tools adhering to real standards.

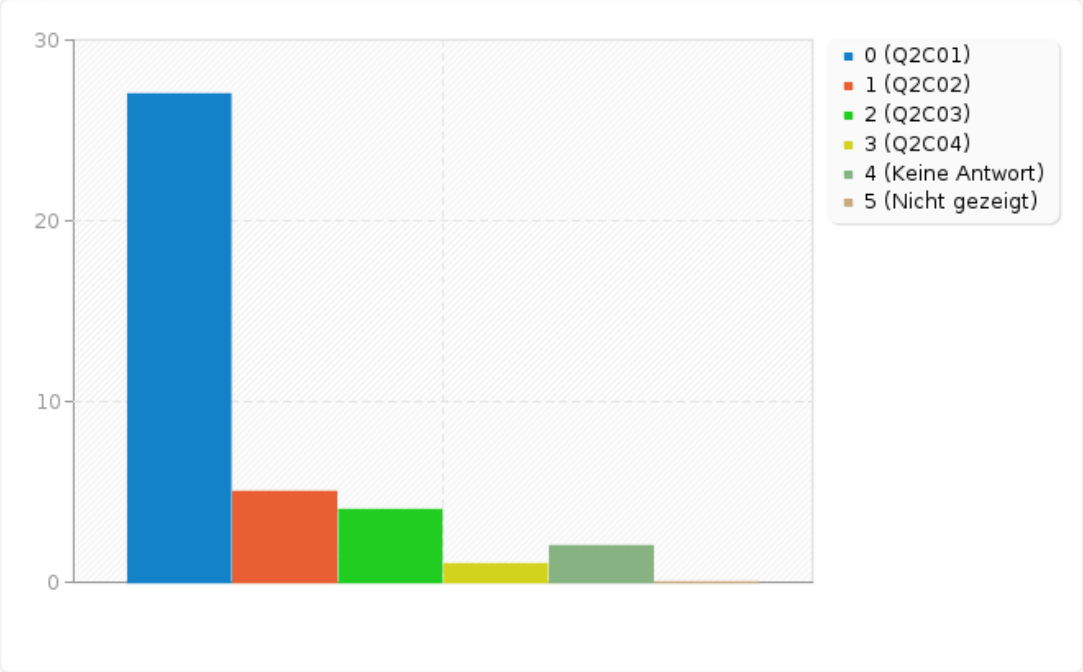
Zusammenfassung für Q2C

How should the aspect “Data archiving” (Phase “Data management”) be handled? It was proposed to add an aspect for archiving to emphasize the importance of being able to validate or re-analyze data later on. Please answer how you think this should be handled:

Antwort	Anzahl	Prozent
Add the proposed aspect (Q2C01)	27	69.23%
Revise the aspect and add it (Please comment what you would revise) (Q2C02)	5	12.82%
Make it a part of the aspect “Multi disciplinary data curation and integration” (Q2C03)	4	10.26%
Do not add it (Q2C04)	1	2.56%
Keine Antwort	2	5.13%
Nicht gezeigt	0	0.00%

Zusammenfassung für Q2C

How should the aspect “Data archiving” (Phase “Data management”) be handled? It was proposed to add an aspect for archiving to emphasize the importance of being able to validate or re-analyze data later on. Please answer how you think this should be handled:



Zusammenfassung für Q2D

Do you have any comments on this aspect?

Antwort	Anzahl	Prozent
Antwort	9	23.08%
Keine Antwort	30	76.92%
Nicht gezeigt	0	0.00%

ID	Antwort
3	Important aspect which can be addressed by competing approaches (centralized versus distributed, local versus centralized versus cloud based)
15	This should be something like Data Lifecycle Management that includes - Data Provenance - Data Curation - Data Processing Workflow Management - Data Archiving
16	First, archiving/backups of data should be a no-brainer and is no specific part of a Radiomics pipeline. I understand the intention to emphasize its importance. I propose to add, especially for the phase "data management", a separate part named "best practices" that is not directly included in the pipeline. Especially the phase "data management" has the most "external" dependencies (i.e. on-site IT resources etc). To much detail in this phase may lead to a loss of clearity and conciseness.
23	Archivierung Speicherung der Daten für potentielle Reanalysen, spätere Validierung und weitere Forschung.
1038	When thinking about archiving data, it seems at first sight counterintuitive to have such item within the section of collecting and providing data for analysis, as you would think that archiving would be the final step after all analyses. Could potentially be alleviated by choosing another way of phrasing the content.
1042	In my opinion, it is of enough importance for an extra aspect (permanence of data should explicitly be guaranteed)
1043	The structure of the data should be described and documented (e.g. one folder = one scan or one folder = one patient with multiple scans).
1044	Since "re-analyze" is mentioned, I would suggest to add the reuse aspect which is a part of FAIR principles. There is an overlap with the "Reporting" section, but I think proper archiving is a necessary precondition for reporting later. And I would suggest to add FAIR as a keyword or suggestion in this section.
1049	Data archiving is an important aspect, especially with respect to open science. This touches aspects of reproducibility, subsequent usage and ultimately trust in AI results. I think it makes sense to include the data archiving aspect.

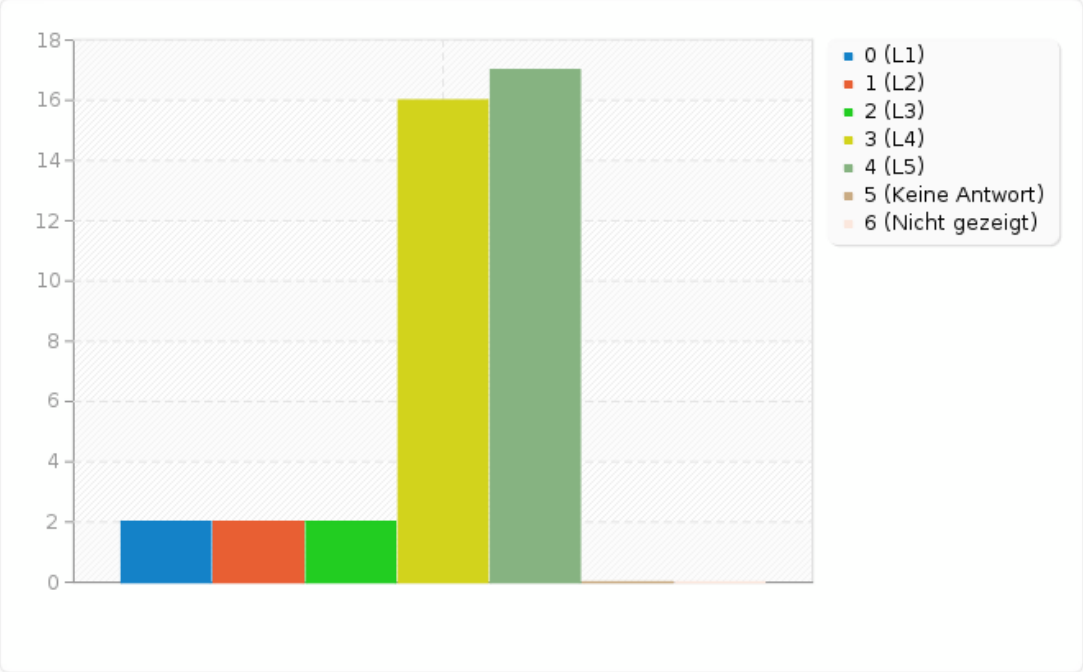
Zusammenfassung für Q3A(Q3A001)[The definition of the aspect is correct, the naming is accurate and the aspect is assigned to the correct phase:]

Aspect: "Quality assurance of segmentation" Please indicate your opinion on the revised aspect (formerly “Re-Segmentation”). English name: Quality assurance of segmentation English definition: Checking and correction of segmentation (especially at its edges) to correct errors that were e.g. introduced by the segmentation or by "harmonization of image geometry” (post segmentation). German name: Qualitätssicherung der Segmentierung German definition: Überprüfung und Korrektur der Segmentierung (insbesondere an deren Rändern) um Fehler zu beheben, die z.B. bei der Segmentierung oder bei „Harmonisierung der Bildgeometrie” (nach der Segmentierung) entstanden sind.

Antwort	Anzahl	Prozent
Strongly disagree (L1)	2	5.13%
Disagree (L2)	2	5.13%
Neither agree nor disagree (L3)	2	5.13%
Agree (L4)	16	41.03%
Strongly agree (L5)	17	43.59%
Keine Antwort	0	0.00%
Nicht gezeigt	0	0.00%

Zusammenfassung für Q3A(Q3A001)[The definition of the aspect is correct, the naming is accurate and the aspect is assigned to the correct phase:]

Aspect: "Quality assurance of segmentation" Please indicate your opinion on the revised aspect (formerly “Re-Segmentation”). English name: Quality assurance of segmentation English definition: Checking and correction of segmentation (especially at its edges) to correct errors that were e.g. introduced by the segmentation or by "harmonization of image geometry” (post segmentation). German name: Qualitätssicherung der Segmentierung German definition: Überprüfung und Korrektur der Segmentierung



Zusammenfassung für Q3B

Do you have any comments on this aspect?

Antwort	Anzahl	Prozent
Antwort	7	17.95%
Keine Antwort	32	82.05%
Nicht gezeigt	0	0.00%

ID	Antwort
10	Mein Englisch ist sicher suboptimal, aber ich wuerde immer von "Quality Control" sprechen, vor allem, wenn es darum geht, auf Segmentierungen zu schauen. Das sagt Google #1 fuer "quality assurance vs quality control": Quality control can be defined as "part of quality management focused on fulfilling quality requirements." While quality assurance relates to how a process is performed or how a product is made, quality control is more the inspection aspect of quality management.
22	As far as I understand this should describe the quality assurance of computed segmentation and refers to the "intrinsic" quality of the network and groundtruth data. "especially edges" and "harmonization of image geometry" refer to special technical aspects, boundary effects and re-sampling. I would drop these technical examples (otherwise they gain too much weight) and keep it general
27	For me, correction of errors that were introduced by the segmentation is still part of the segmentation. I think this aspect should only refer to segmentations that have been postprocessed and need another verification step.
1036	I think there should be an automated segmentation effort in all radiomics studies. Radiomics can never be established in clinical practice if every segmentation has to be corrected. Manual post-correction should only be done in the initial training process of establishing an automated segmentation algorithm. A post-correction of the automated segmentation prior to feature extraction introduces a bias, making the automated segmentation algorithm appear better than it actually is.
1043	Maybe, it could also cover the harmonization of subjective differences in manual segmentations.
1044	I think the description is very specific (revising edges of segmentation). Quality assurance is much broader, and my first guess would be this section describes some process like a second reader confirming the results. So in general I agree to have this section, but I would name it differently, "revision and edge correction of segmentation"?
1049	"Quality assurance of segmentation" is much more intuitive than Re-Segmentation.

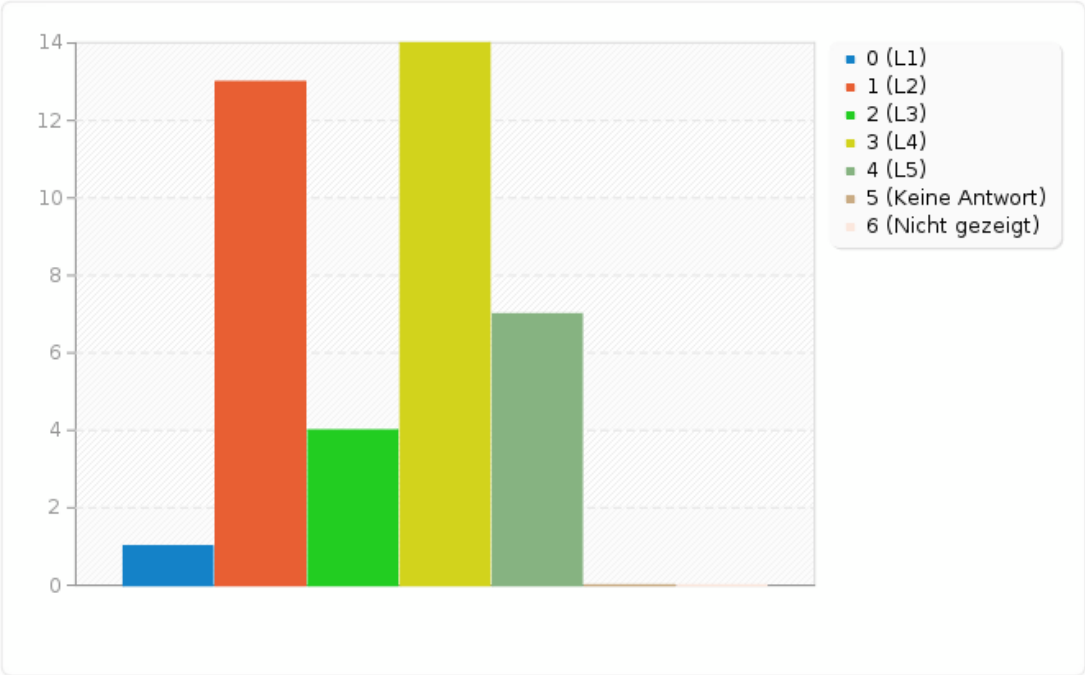
Zusammenfassung für Q3C(Q3C001)[The aspect should be moved to the phase data management:]

Aspect: "Visual image quality assessment" It was proposed to move it into the phase “data management” and that it should not be mandatory. Please indicate your opinion on these proposals.

Antwort	Anzahl	Prozent
Strongly disagree (L1)	1	2.56%
Disagree (L2)	13	33.33%
Neither agree nor disagree (L3)	4	10.26%
Agree (L4)	14	35.90%
Strongly agree (L5)	7	17.95%
Keine Antwort	0	0.00%
Nicht gezeigt	0	0.00%

Zusammenfassung für Q3C(Q3C001)[The aspect should be moved to the phase data management:]

Aspect: "Visual image quality assessment" It was proposed to move it into the phase “data management” and that it should not be mandatory. Please indicate your opinion on these proposals.



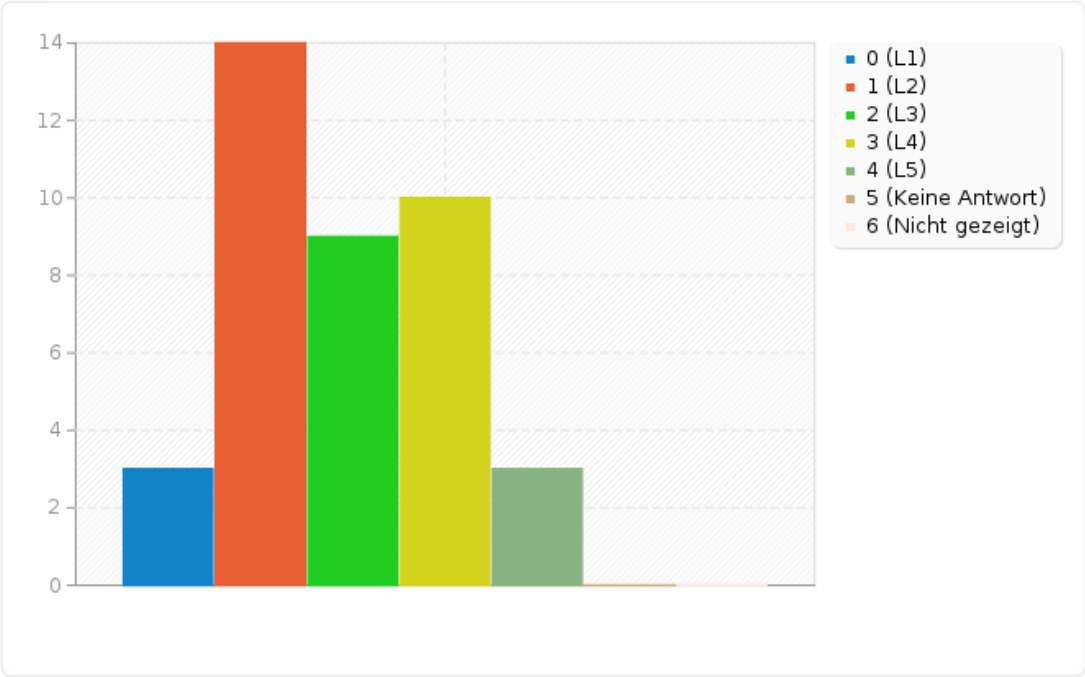
Zusammenfassung für Q3C(Q3C002)[The aspect should be only optional (not mandatory):]

Aspect: "Visual image quality assessment" It was proposed to move it into the phase “data management” and that it should not be mandatory. Please indicate your opinion on these proposals.

Antwort	Anzahl	Prozent
Strongly disagree (L1)	3	7.69%
Disagree (L2)	14	35.90%
Neither agree nor disagree (L3)	9	23.08%
Agree (L4)	10	25.64%
Strongly agree (L5)	3	7.69%
Keine Antwort	0	0.00%
Nicht gezeigt	0	0.00%

Zusammenfassung für Q3C(Q3C002)[The aspect should be only optional (not mandatory):]

Aspect: "Visual image quality assessment" It was proposed to move it into the phase “data management” and that it should not be mandatory. Please indicate your opinion on these proposals.



Zusammenfassung für Q3D

Do you have any comments on this aspect?

Antwort	Anzahl	Prozent
Antwort	8	20.51%
Keine Antwort	31	79.49%
Nicht gezeigt	0	0.00%

ID	Antwort
3	data management concerns mainly technical aspects, e.g. storage and retrival of data, whereas visual Image Quality assessment requires radiologic expertise
13	Image quality depends on what you want to do with the data. For one task the image quality is sufficient while for another insufficient. This may not always be judged at time of data management.
15	The visual inspection is very subjective, depending on the person who is doing it. There should be a pre-defined list of criteria which should be checked visually as a basis: this could narrow the variability of the results but might be a hurdle not everybody is willing to surmount.
16	I propose to merge the aspect "Visual image quality assessment" with "Quality assurance of segmentation" since quality assurance without visual assessment is pointless. In my experience, severe segmentation issues are often associated with low image quality.
1038	If this is needed or not probably depends on the sample size. With every growing numbers of subjects/patients within large-scale studies, visual image quality assessment can only be done on a sample basis, but not for the entire set. Thus, it should be in principle mandatory, but realistically only for a randomly chosen subset and only if automated QC is not available.
1042	Sometimes, outliers can more easily / effectively be identified once image processing and segmentation results are available. The aspect should be part of any radiomics analysis, since presence of outliers are expected to significantly affect results and to have explanatory value.
1043	I think the detection (definition) of outliers should go into the data management part where the analysis of outliers deals more with the analysis of observed differences.
1049	Image quality should be considered in light of the tools that are used to work with the images, so I would vote for leaving it in image processing and segmentation. Also, visual image QA is probably not strictly necessary, particularly if one considers large-scale analyses, where this is not really feasible (or only for a subset of images).

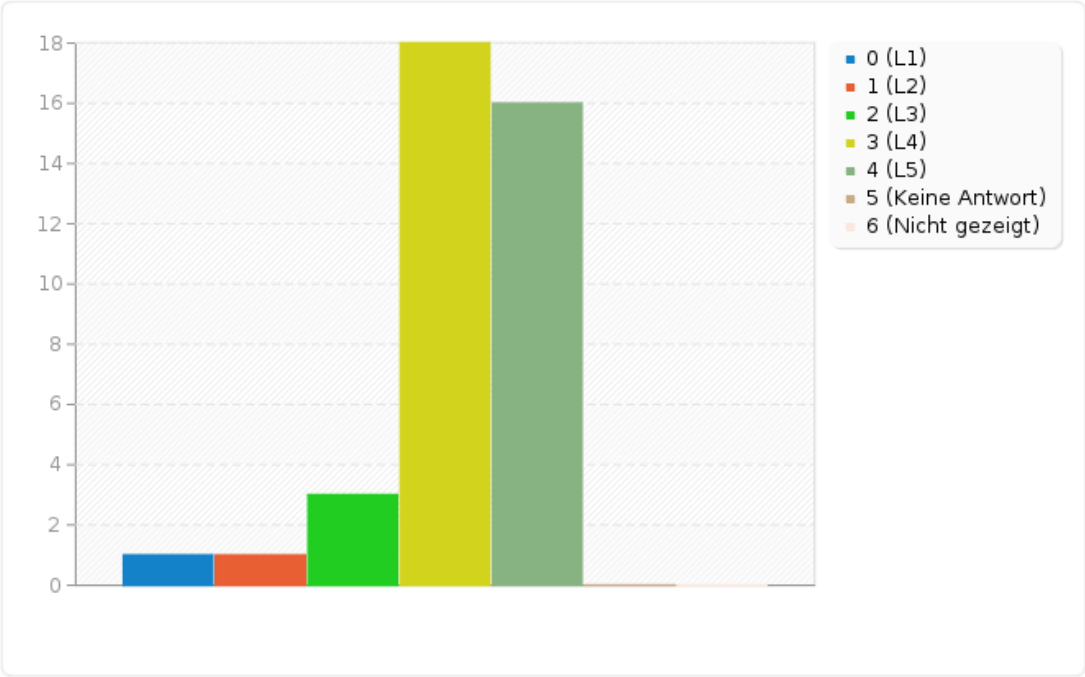
Zusammenfassung für Q4A(Q4A001)[The definition of the aspect is correct, the naming is accurate and the aspect is assigned to the correct phase:]

Aspect: “Open source publication of methods and tools” It was proposed to add an aspect on open source publication to emphasize that matter. Please indicate your opinion on the proposed aspect. English name: Open source publication of methods and tools English definition: Publication (e.g. via public code repositories) of the used program source codes and analysis scripts to support reproducibility of the study setup and reuse of the published methodology. German name: Open source Publikation der Methoden und Werkzeuge German definition: Veröffentlichung (z.B. mittels öffentlich zugänglicher Code-Repositories) des benutzten Programmcodes und Analyseskripte um die Reproduzierbarkeit des Studienaufbaus wie auch die Wiederverwendung der veröffentlichten Methodik zu unterstützen.

Antwort	Anzahl	Prozent
Strongly disagree (L1)	1	2.56%
Disagree (L2)	1	2.56%
Neither agree nor disagree (L3)	3	7.69%
Agree (L4)	18	46.15%
Strongly agree (L5)	16	41.03%
Keine Antwort	0	0.00%
Nicht gezeigt	0	0.00%

Zusammenfassung für Q4A(Q4A001)[The definition of the aspect is correct, the naming is accurate and the aspect is assigned to the correct phase:]

Aspect: “Open source publication of methods and tools” It was proposed to add an aspect on open source publication to emphasize that matter. Please indicate your opinion on the proposed aspect. English name: Open source publication of methods and tools English definition: Publication (e.g. via public code repositories) of the used program source codes and analysis scripts to support reproducibility of the study setup and reuse of the published methodology German name: Open source Publikation der



Zusammenfassung für Q4B

Do you have any comments on this aspect?

Antwort	Anzahl	Prozent
Antwort	6	15.38%
Keine Antwort	33	84.62%
Nicht gezeigt	0	0.00%

ID	Antwort
15	We should also suggest using standardized tools that are meanwhile available to jointly make the data and the workflow for processing therein available including necessary information such as documented code alongside with tests, importers and exporters and the provenance information. Best would be also the processing pipelines to be available.
22	"Open source" might be the wrong term. Could also be provided as a binary, that might even encourage people to provide their tools for verification.
27	Shouldn't we also add open source publication of data, then?
1035	Would keep that optional
1043	The code repository should be generally applicable and limitations based on applied modalities etc. should be documented.
1044	The aspect is very important, but I would add some comment about the data as well. Even if the data can't be published for e.g. privacy reasons, an exact description including metadata formats etc. would be necessary to have a truly reproducible study setup. So I suggest to extend it with "data" aspects. Again, FAIR could be a keyword which already summarizes many aspects.