

Tool 3 — Derivative and Embedding Governance Decision Tool

Supplementary Table 8

Assesses whether technical transformation (features, embeddings, synthetic data, predictions, trained models) has materially changed functional exposure and whether the tier or safeguards require reassessment. Step 7 holds the leakage and anonymity assessment that gates public release of models. Produces five outcomes.

Step	Question	Answer	Required action
1	Has the neurodata undergone, or will it undergo, technical transformation; will it be used in an AI or machine-learning system; or may neurodata-derived information persist in a model or computational infrastructure? Apply the triggers and exceptions in Annexure 1 §7.2. Examples include feature extraction, dimensionality reduction, embedding generation, predictive modelling, synthetic-data generation or AI-model training.	No	Record why none of these triggers applies. Retain the tier and safeguards established under Tool 1 / Supplementary Table 6. Record "Tool 3 (Supplementary Tool 8) not required for this activity" and return to the referring Tool at its next applicable step. Reassess if the activity or object changes.
		Yes	Record the applicable trigger. If an exception under Annexure 1 §7.2 is established for this particular object and activity, document the exception and return to the referring Tool. Do not apply that exception to AI activities requiring assessment under Supplementary Table 7 Step 10. Otherwise, continue to Step 2.
		Unsure	Obtain clarification of the processing, AI activity or possible computational persistence. Do not mark the activity as exempt while applicability remains uncertain. Pause this assessment and return to Step 1 when the answer is established.
2	What form of transformation has occurred or is proposed? Examples include feature vectors, embeddings, connectivity measures, reconstructed signals, classifiers, predictions, synthetic neurodata, trained models, model gradients, or other derived representations.	One or more forms or activities identified	Record the transformation or activity, purpose, source neurodata, technical method and resulting or assessed artefact. Identify its version and any retained intermediate representations requiring separate assessment. Continue to Step 3.
		Other, but sufficiently described	Describe the activity and artefact in technical terms sufficient to assess exposure, even if no listed category fits. Continue to Step 3.
		Unclear	Obtain a description from the technical lead, recipient or provider. Pause progression until the activity and assessed object can be identified. Return to Step 2. If essential information cannot be obtained, select Final Decision Outcome 4 below.
3	Can the resulting artefact circulate, be accessed, queried or be deployed independently of the source neurodata? Example: a trained model, embedding repository or predictive classifier is shared without distributing the original EEG or MRI dataset.	Yes	Record the intended recipients, access mechanisms and deployment environment. Identify the controls needed when the artefact is used without the source data. Continue to Step 4. Independent circulation does not itself determine a tier.
		No	Record how the artefact remains connected to, or controlled with, the source neurodata. Continue to Step 4.
		Unsure	Record independent circulation as possible pending technical confirmation. Request confirmation of the architecture and access arrangements. Continue to Step 4, retaining the unresolved issue for the Final Decision.

Step	Question	Answer	Required action
4	Can the resulting artefact, alone or with information reasonably available to the intended recipient, identify or trace a participant or re-establish linkage to the source neurodata? Examples: an embedding or latent representation unique to a participant; a synthetic dataset that reproduces training records; a model that memorises participant-level signals; outputs that carry source identifiers or acquisition metadata.	Yes	Record the identification or tracing mechanism and supporting evidence. Flag the finding for classification under Tool 1 / Supplementary Table 6 and retain applicable identification and linkage safeguards. Continue to Step 5; do not determine the final tier from this answer alone.
		No	Record the supporting evidence and the additional information considered. Continue to Step 5. Absence of identification does not establish absence of inference or computational persistence.
		Unknown	Record the unresolved identification or linkage question and request technical assessment. Apply the relevant provisional safeguards under Tool 1 / Supplementary Table 6. Continue to Step 5 and retain the uncertainty for the Final Decision.
5	Can the artefact reveal, predict, reconstruct or profile neurological, cognitive, emotional or behavioural characteristics of an individual or group, even without directly identifying a participant? Distinguish ordinary aggregate description from material group-level Functional Exposure under Annexure 1 §2.1. Example: an EEG-derived embedding predicts cognitive decline, or a model output classifies stress, attention or neurological status.	Yes	Record the capability, affected individuals or group, supporting evidence and relevant access conditions. Record a candidate Tier 4 condition and apply Tier 4 safeguards provisionally, retaining any higher applicable safeguards. Continue to Step 6.
		No	Record the evidence supporting this conclusion and its limitations. Continue to Step 6.
		Unknown	Record the unresolved inferential, reconstructive or profiling capability. Apply provisional Tier 4 safeguards, retaining any higher applicable safeguards. Request the technical assessment needed to resolve the question. Continue to Step 6.
6	Has neural information become, or may it reasonably have become, computationally persistent within a model, shared embedding, model gradient, synthetic-data generator, or other infrastructure in a manner capable of supporting continuing inference, reconstruction, extraction or profiling? Model incorporation alone is not sufficient; consider whether information derived from the neurodata may persist and create continuing functional exposure.	Yes	Record a candidate Tier 5 condition and the evidence of continuing functional exposure. Apply Tier 5 safeguards provisionally pending completion of the assessment. Continue to Step 7. Confirm Tier 5 only if the completed assessment meets Outcome 3.
		No	Record the technical evidence supporting the absence of continuing computational exposure and its limitations. Do not assign Tier 5 solely because model incorporation occurred. Continue to Step 7.
		Unknown	Record provisional Tier 5 and the unresolved persistence or exposure question. Apply Tier 5 safeguards provisionally and request specialist assessment. Continue to Step 7. If material uncertainty remains at the Final Decision, select Outcome 4 rather than confirming Tier 5.

Step	Question	Answer	Required action
7	Has the artefact or model been evaluated, where technically relevant, for memorisation, training-data extraction, model inversion, membership inference or other forms of information leakage, under the intended access and release conditions? Where public or unrestricted release is proposed, apply the anonymity assessment: (1) likelihood of direct extraction of participant-level information from the artefact (weights, embeddings, generator); (2) likelihood of obtaining participant-level information through queries or outputs, considering all means reasonably likely to be used by any member of the public; (3) documentation of the methods, thresholds, versions and residual risk (cf. EDPB Opinion 28/2024). Example: testing assesses whether prompts, queries or attacks can recover participant-related neural information or determine whether particular records contributed to model training.	Yes—material exposure was identified	Record the methods, findings, artefact version and tested access conditions. Update the findings at Steps 4–6 as indicated by the evidence. Record a candidate Tier 5 condition where leakage demonstrates continuing model-associated or computationally persistent exposure. Continue to Step 8. Record 'Public release not supported'.
		Yes—no material exposure was identified	Record the testing scope, methods, thresholds, artefact version and access conditions. Where the tested conditions include public release and steps (1)–(3) are documented, record 'Anonymity assessment documented: public release may be considered at Tool 2 (Supplementary Table 7) Step 3'. Do not treat the result as proof of absence of exposure beyond those conditions or automatically remove an earlier finding. Continue to Step 8.
		Not tested or unknown	Obtain a technical assessment of whether testing is relevant, proportionate and feasible. Record required testing or alternative evidence, the responsible person and any remaining uncertainty. Retain applicable provisional safeguards and continue to Step 8. If material exposure cannot be assessed reliably, select Outcome 4 at the Final Decision. Record 'Public release not supported'.
		Not technically applicable	Record the technical justification and responsible reviewer. Continue to Step 8. This answer does not resolve other exposure findings. Record 'Public release not supported'.
8	Are the provenance and transformation history of the artefact sufficiently documented? Consider the source neurodata, lawful provenance, preprocessing, training purpose, model architecture, training or fine-tuning procedure, model version, vendors, cloud providers, sub processors and subsequent modifications.	Yes	Preserve or reference the provenance and version records. Continue to Step 9.
		No	Identify the missing records and request them from the responsible parties. Record whether each gap affects the assessment or proposed use. Continue to Step 9, carrying unresolved gaps to the Final Decision. Do not approve affected sharing or deployment while essential provenance remains unresolved.
		Unknown	Obtain information from the technical team, recipient, vendor or provider. Record the outstanding provenance questions and responsible person. Continue to Step 9, carrying unresolved gaps to the Final Decision.

Step	Question	Answer	Required action
9	Will the proposed access or deployment conditions materially affect functional exposure? Consider downloadable copies, public release, API or query access, external hosting, fine-tuning, transfer learning, model merging, distillation, commercial deployment or access by additional recipients.	Yes	Record the conditions, their effect on exposure and the safeguards required. Revisit Steps 4–7 if those conditions change the evidence supporting an answer. Mark Supplementary Table 7 for completion or update where an external transfer or access pathway is involved. Continue to Step 9A
		No	Record the assessed access and deployment conditions and why they do not materially change exposure. Continue to Step 9A.
		Unknown	Obtain clarification of intended access, hosting and deployment. Do not approve the unresolved arrangement. Return to Step 9 when the conditions are established. If material uncertainty remains, select Final Decision Outcome 4.
9A	Have the proposed outputs, including features, embeddings, synthetic outputs, and model weights, been assessed against applicable authorisation and release conditions?	Yes	Record the assessment, applicable conditions, responsible reviewer and approval status. Mark outstanding approvals as pending and withhold release until required approvals are obtained. Continue to Step 10.
		No	Identify the required output or release assessment and responsible reviewer. Withhold release pending that assessment and any required approval. Continue to Step 10 with the requirement recorded as outstanding.
		Uncertain	Obtain confirmation of the applicable conditions and whether they have been assessed. Withhold release while unresolved. Continue to Step 10, retaining the uncertainty for the Final Decision.
10	Are retention, withdrawal, deletion, decommissioning and, where technically feasible, model-unlearning procedures documented and capable of implementation? Example: the project specifies how model versions and embeddings will be retained, how access will be terminated, whether derived artefacts can be deleted and what alternative controls will apply if reliable unlearning is not technically feasible.	Yes	Record the applicable triggers, responsible parties, procedures, timeframes and verification requirements. Assess the effects of EHDS opt-out, consent withdrawal, erasure requests and contractual termination separately, including their implications for previously authorised processing. Continue to Step 11.
		Partly	Record unavailable controls and their consequences. Obtain review of proportionate alternatives, such as access withdrawal, version retirement, decommissioning, output restrictions or prohibition of further training. Record accepted alternatives, outstanding implementation actions and responsible parties. Continue to Step 11. Do not treat a proposed alternative as an implemented safeguard.
		No or unknown	Obtain specialist technical and governance review of the limitations and possible alternative safeguards. Withhold external sharing or deployment pending that review. Continue to Step 11 with the review requirement recorded as outstanding.

Step	Question	Answer	Required action
11	Can the identified functional exposure be managed through proportionate legal, institutional, repository, technical and contractual safeguards throughout the proposed use and deployment? Example: An fMRI-derived predictive model remains capable of neurological inference, but access is limited to approved researchers within a secure environment; queries and outputs are monitored; unauthorised profiling, retraining and onward sharing are contractually prohibited; and audit, incident-response, retention and model-decommissioning procedures are documented and enforceable.	Yes	Record the safeguards and supporting assessment. Proceed to the Final Decision. Any unresolved issue from an earlier step remains applicable.
		Only after additional safeguards	Record each safeguard, responsible party and implementation evidence required. Proceed to the Final Decision, identifying any suitable tier outcome separately from outstanding implementation conditions. Do not begin the affected activity until the required safeguards are implemented and verified.
		Unsure	Record the unresolved governance question and required review. Select Final Decision Outcome 4.
		No	Record why the exposure cannot be managed under the proposed arrangement. Select Final Decision Outcome 5.
<i>Final Decision: Select and document one outcome Reassessment and implementation: If the assessment changes the provisional tier, return to the Neurodata Governance Decision Tool (Supplementary Table 6). If it affects an existing or proposed transfer or access pathway, repeat the Neurodata Transfer and Access Decision Tool (Supplementary Table 7). The resulting governance determinations should then be implemented through the MDTAA Clause Selection Tool (Supplementary Table 9) where contractual governance is required.</i>			
	Outcome	Decision criterion and required action	

Step	Question	Answer	Required action
1	Retain the existing Tier	Select where documented evidence supports the existing classification of the assessed artefact, no new or increased exposure requires a higher tier, and the applicable safeguards remain suitable. Record the tier, supporting evidence, limitations and any outstanding implementation conditions. Do not convert a candidate or provisional tier into a confirmed tier through this outcome. Resolve material classification uncertainty through Outcome 4. If returning to an unfinished Tool 1 / Supplementary Table 6 assessment, resume at its next applicable step and complete Steps 5 and 6. Complete or update Tool 2 / Supplementary Table 7 where an external pathway is involved.	

Step	Question	Answer	Required action
2	Refer for Tier 4 classification / re-assessment	Select where a derived artefact supports identification, tracing or material inference, reconstruction or profiling consistent with Table 6 Step 4, and the assessment provides sufficient evidence that Tier 5 criteria are not met. Record the evidence and apply Tier 4 safeguards provisionally. Return to Tool 1 / Supplementary Table 6 at Step 3, follow the Tier 4 pathway and complete Steps 5 and 6. Document resolution of any candidate or provisional Tier 5 finding addressed by this assessment. Absence of evidence alone does not resolve material uncertainty. Do not automatically lower a previously confirmed Tier 5: apply the documented reassessment and approval requirements in Annexure 3 §10.3. Complete or update Tool 2 / Supplementary Table 7 using the resulting classification and safeguards where an external pathway is involved.	

Step	Question	Answer	Required action
3	Confirm Tier 5 classification	Select where the completed assessment demonstrates continuing functional exposure through neural information persisting within a model or computational infrastructure. Model incorporation alone is insufficient. Record the evidence and confirm Tier 5 finding. Return to Tool 1 / Supplementary Table 6 at Step 2B, record Tier 5 as confirmed and continue from Step 3, including Steps 5 and 6, to identify cumulative safeguards. Reference this completed Tool 3 / Supplementary Table 8 assessment; do not restart it solely because Tool 1 / Supplementary Table 6 refers to it. Complete or update Tool 2 / Supplementary Table 7 where an external pathway is involved.	

Step	Question	Answer	Required action
4	Specialist review required	Select where material questions about exposure, persistence, testing, provenance, authorisation conditions, deployment or lifecycle controls remain unresolved. Record each unresolved question, required evidence and responsible reviewer. Retain the applicable protective provisional tier and safeguards. Where continuing computational exposure remains materially uncertain, retain provisional Tier 5 safeguards. Do not begin the activity that depends on resolution of the outstanding issue. Following review, return to the affected step, update dependent answers and reconsider the Final Decision.	

Step	Question	Answer	Required action
5	Do not proceed in the current form	Select where exposure cannot be managed proportionately, essential provenance or oversight cannot be obtained, required lifecycle controls or acceptable alternatives cannot be implemented, or the proposed activity cannot satisfy applicable conditions. Record the reasons and retain the assessment and established tier findings. Do not commence or continue the affected activity in its assessed form. If the artefact, model, access arrangement or purpose is redesigned, repeat the affected assessments before proceeding.	

Neurodata Governance Toolkit, version 1.0 (October 2026). Governance decision support only; not legal advice.