

NIST AI RMF 1.0 × R-BED™

A selective mapping from NIST AI risk-management outcomes to Risk-Based Evaluability Design

Version 2.1 | 29 October 2026 | Public community resource · proposed mapping

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Mapped resource	R-BED Public Framework, Version 2.1 (29 October 2026); freely available community reference. Available at https://rbed.ai/RBED_Public_Framework_v2.1.pdf .
Prepared by	Vishal Kumar Srivastava, PhD (independent submission; no NIST affiliation or endorsement).
Version / basis	Crosswalk v2.1, mapping NIST AI RMF 1.0 (NIST AI 100-1). Changes to NIST AI RMF may require a revised crosswalk.

1 Intended purpose and mapping method

This crosswalk helps users understand where R-BED contributes operational evidence and testing practices to selected NIST AI RMF 1.0 subcategories. It is not a claim that the two resources are equivalent, comprehensive, compliant, or NIST-approved. A NIST AI RMF subcategory defines an organizational risk-management outcome; R-BED defines a narrower system-evaluation method. Mapping a relevant method to an outcome does not by itself establish that the outcome is achieved.

Methodological overview. R-BED links technical evaluation evidence, evidence of deployment-control effectiveness, real-world consequences, and accountable deployment decisions for a configured AI system, using a traceable record. Most mappings below concern one of its five combined features: consequence-aware evaluation, independent control testing, explicit uncertainty and evidence sufficiency, evidence-based authorization, and system-level scope. The contribution claimed is the combination; individual components have precedents, and no superiority over other resources is claimed.

R-BED describes an evaluation pathway—Technical Failure, Deployment Controls, Consequence and Impact—with thirteen dimensions (6 + 4 + 3), five cross-cutting objectives (safety, security, privacy, robustness, resilience), a Consequence Register, a seven-stage lifecycle with eight roles, and an authorization record. For each mapped NIST subcategory below, we describe a concrete contribution, cite the public R-BED section, and identify where adopting organizations must supply additional practices.

Continuous system evaluation. The Public Framework includes continuous system evaluation (CSE): evidence that carries an expiry and invalidation conditions, control assurance levels, consequence-tiered monitoring and a failure-to-learning loop, described in the companion CSE Specification (https://rbed.ai/RBED_CSE_Specification_v2.1.pdf). Ten rows below include a CSE contribution. The CSE elements are proposals that have not been empirically validated, and this crosswalk does not claim that using them achieves any NIST outcome.

Relationship labels. **Relevant contribution** = a direct methodological contribution to part of the NIST outcome; **Partial** = supports an aspect but needs substantial additional governance or evidence. Neither label signifies conformity or coverage certification.

Terms. SES = System Evaluation Specification (the bounded, versioned record of claims, scope, metrics, test evidence, decision and renewal triggers; see R-BED §10). The eight-step workflow is in R-BED §6, the Consequence Register in §5, and dispositions and authorization rules in §11. TEVV = test, evaluation, verification and validation.

2 Crosswalk summary

NIST function	Scope of the R-BED contribution	Mapped	Primary R-BED sections
GOVERN	Risk-calibrated evidence depth, named roles, authorization and renewal; organizational leadership, training and policies are outside R-BED.	10 of 19	§§1, 6, 9, 11
MAP	Context, system boundary, pathways, consequence characterization and scope.	13 of 18	§§1–3, 5, 6, 10
MEASURE	Specified scenarios, documented tests, uncertainty, control challenge, monitoring feedback, and routing to specialized security and privacy assessment.	16 of 22	§§3–11
MANAGE	Treatment types, residual risk, dispositions, independent retest, stop and re-evaluation.	12 of 13	§§6, 8–11

Total: 51 of 72 subcategories mapped (44 Partial, 7 Relevant contribution). Ten contributions (GOVERN 1.5, MAP 3.5, MEASURE 1.2, 2.4 and 3.1, MANAGE 2.3, 2.4, 4.1, 4.2 and 4.3) include a contribution from the continuous system evaluation layer. Section references beginning with CSE refer to the R-BED CSE Specification v2.1; others refer to the Public Framework. Revised rows describe a proposed, unvalidated capability and do not claim that the NIST outcome is achieved.

3 Subcategory mapping table

GOVERN — mapped subcategories

NIST AI RMF 1.0 subcategory (summary)	R-BED operational contribution and section	Relationship / condition
GOVERN 1.3 Risk management effort is tailored to organizational risk tolerance.	Materiality selects test depth, uncertainty review and control verification intensity. <i>R-BED §§ 1, 6, 9, 11</i>	Relevant contribution Boundary: The organization must set tolerance; R-BED supplies no universal thresholds.
GOVERN 1.4 Risk management process and outcomes are established through transparent policies, procedures and controls.	The SES, Consequence Register and authorization record make the process and its outcomes inspectable per system. <i>R-BED §§ 1, 9–11</i>	Partial Boundary: R-BED does not write organizational policy; it supplies records a policy can require.
GOVERN 1.5 Monitoring and periodic review are planned with roles.	Monitoring triggers, authorization expiry and invalidation conditions are recorded with named role holders and re-evaluated on schedule. The continuous-evaluation layer adds tiered monitoring cadences, a maximum authorization duration by tier, and a portfolio report that lists expiring, past-review and unfunded items for committee decision (CSE Specification Sections 9, 11 and 13). <i>R-BED §§ 6, 9–11; CSE 9, 11, 13</i>	Partial Boundary: No organization-wide role charter, schedule governance, or resourcing; the tier cadences are illustrative defaults.
GOVERN 1.6 Mechanisms are in place to inventory AI systems, resourced by risk priority.	The portfolio view lists systems by disposition, evidence status and expired authorization without a composite score. <i>R-BED §§ 9</i>	Partial Boundary: R-BED does not discover or maintain the inventory; it summarizes SES records an organization already holds.
GOVERN 1.7 Processes exist for decommissioning and phasing out AI systems safely.	The Stop disposition and lifecycle stage 7 require retirement conditions and handling of residual obligations. <i>R-BED §§ 9, 11</i>	Partial Boundary: R-BED names the decision point; decommissioning procedures are organizational.
GOVERN 2.1 Responsibilities for risk management are documented.	Eight roles (business, technical, risk, evaluation, independent review, approval, incident response, safeguard) are named per system, with separation-of-duties checks. <i>R-BED §§ 6, 9–11</i>	Partial Boundary: Does not establish organizational accountability or training.

NIST subcategory (cont.)	R-BED contribution (cont.)	Relationship (cont.)
GOVERN 2.3 Executive leadership takes responsibility for decisions about AI risk.	The deployment-approving authority is named in the authorization record, with expiry and invalidation conditions, and must differ from the evaluation owner. <i>R-BED §§ 9, 11</i>	Partial Boundary: R-BED cannot establish leadership accountability; it records who accepted which decision.
GOVERN 3.2 Policies define and differentiate roles and responsibilities for human-AI configurations and oversight.	Authority grants and Human Mediation define who or what may act at which privilege level and where limits are enforced. <i>R-BED §§ 3.2, 9</i>	Partial Boundary: Role policy remains organizational; R-BED supplies the dimensions and record fields.
GOVERN 4.2 Teams document and communicate AI risks and potential impacts.	The SES and 13-dimension analysis record risk pathways, gaps and affected stakeholders. <i>R-BED §§ 3, 9–11</i>	Partial Boundary: Public disclosure, enterprise-wide communication and organizational reporting processes are separate; R-BED records pathway information but does not establish them.
GOVERN 4.3 Organizational practices enable testing, incident identification and information sharing.	R-BED's eight-step workflow (§6) challenges system claims and links monitoring observations to reevaluation. <i>R-BED §§ 6, 7, 9, 11</i>	Partial Boundary: Does not establish organization-wide incident reporting, cross-team information sharing or disclosure procedures.

MAP — mapped subcategories

NIST AI RMF 1.0 subcategory (summary)	R-BED operational contribution and section	Relationship / condition
MAP 1.1 Intended uses and deployment contexts are documented.	System boundary, operating population and intended purpose are inputs to every System Claim. <i>R-BED §§ 1, 2, 6, 10</i>	Partial Boundary: NIST also covers legal and normative context, user expectations, TEVV settings and organizational context; these require external analysis beyond the R-BED system boundary.
MAP 1.4 Business value or context of business use is defined or re-evaluated.	The justification record states the need, alternatives considered and why AI is used, and is revisited at review. <i>R-BED §§ 1, 9, 10</i>	Partial Boundary: R-BED does not assess business value; it requires that the justification be written and reviewable.
MAP 1.5 Risk tolerances are determined and documented.	SES records externally approved risk tolerance and categorical prohibitions. <i>R-BED §§ 1, 6, 10</i>	Partial Boundary: R-BED does not set risk appetite.

NIST subcategory (cont.)	R-BED contribution (cont.)	Relationship (cont.)
MAP 1.6 Requirements include socio-technical implications of system design.	Claims cover technical components, human mediation, delegated authority and downstream harms. <i>R-BED §§ 2, 3, 10</i>	Partial Boundary: Requirement elicitation and affected-party engagement require additional processes.
MAP 2.1 The specific task and the methods used to implement it are defined.	Claims and the system boundary state purpose, versions, tools and delegated permissions. <i>R-BED §§ 2, 10</i>	Partial Boundary: Task definition is an input to R-BED; it does not choose the method.
MAP 2.2 Knowledge limitations and human use/oversight are documented.	Data Foundations, AI Authority and Human Mediation force explicit scope and review claims. <i>R-BED §§ 3.1, 3.2, 10</i>	Relevant contribution Boundary: Operational user guidance must be written for each deployment.
MAP 2.3 Scientific integrity and evaluation design considerations are documented.	Sampling frames, replication, challenge methods, uncertainty and limitations enter the SES. <i>R-BED §§ 6–8, 10</i>	Relevant contribution Boundary: Does not independently validate measurement constructs or data provenance.
MAP 3.2 Monetary and non-monetary costs from errors or AI functionality are examined.	The Consequence Register (§5) records financial and non-financial consequence categories, severity, reach, duration and reversibility per scenario. <i>R-BED §§ 3.3, 5, 8, 10</i>	Partial Boundary: R-BED emphasizes defined failure pathways and does not comprehensively assess harms from normal system functionality.
MAP 3.3 Targeted application scope is specified and documented.	Accepted boundaries (population, conditions, window) bound every claim; Restrict requires explicit scope conditions. <i>R-BED §§ 2, 10, 11</i>	Partial Boundary: Scope is bounded per claim; R-BED does not categorize the system.
MAP 3.4 Processes for operator and practitioner proficiency are defined, assessed and documented.	Human Mediation examines reviewer competence, workload and automation bias as evidence questions. <i>R-BED §§ 3.2, 7</i>	Partial Boundary: R-BED does not certify operators or set proficiency standards.
MAP 3.5 Human oversight processes are defined and assessed.	Authority grants record the privilege level (read, draft, recommend, act-with-approval, act-autonomously) and whether the limit is enforced outside the model. The continuous-evaluation layer adds measures of oversight effectiveness: seeded-error detection, automation bias, false intervention, dwell time and authority to act (CSE Specification Section 8). <i>R-BED §§ 3.2, 6, 12; CSE 8</i>	Partial Boundary: No human-factors certification or workforce governance; the oversight measures are proposed and untested.

NIST subcategory (cont.)	R-BED contribution (cont.)	Relationship (cont.)
MAP 4.2 Internal controls for AI components are identified and documented.	System boundary identifies controls; control challenge records tests of actual enforcement. <i>R-BED §§ 2, 3.2, 6, 10</i>	Partial Boundary: Does not establish complete control coverage; third-party components may constrain visibility, and R-BED does not itself document all internal risk controls.
MAP 5.1 Likelihood and magnitude of beneficial and harmful impacts are characterized.	The conditional pathway method distinguishes failure probability, conditional harm, consequence and uncertainty for harmful failure-mediated pathways. <i>R-BED §§ 3.3, 6, 8</i>	Partial Boundary: NIST also covers beneficial impacts, harms arising without technical failure, and external perspectives; these require separate methods.

MEASURE — mapped subcategories

NIST AI RMF 1.0 subcategory (summary)	R-BED operational contribution and section	Relationship / condition
MEASURE 1.1 Metrics are selected beginning with significant mapped risks; exclusions recorded.	Materiality-driven scenario selection and explicit unresolved evidence. <i>R-BED §§ 1, 6, 9–11</i>	Relevant contribution Boundary: Appropriate significance thresholds remain context-specific.
MEASURE 1.2 Appropriateness of risk metrics and effectiveness of controls are reassessed.	The eight-step workflow, evaluation-quality review and renewal triggers support retesting and protocol revision. The continuous-evaluation layer adds an Evidence Validity Register that gives evidence an expiry and invalidation triggers, and an assurance ladder (L0–L3) for reassessing control effectiveness (CSE Specification Sections 5 and 6). <i>R-BED §§ 6, 7, 9, 11; CSE 5, 6</i>	Partial Boundary: Does not establish an organization-wide periodic review process or affected-community reporting channels.
MEASURE 1.3 Independent or separate reviewers participate in assessments.	Method recommends independent challenges and verification of material fixes. <i>R-BED §§ 6, 9, 11</i>	Partial Boundary: Cannot guarantee assessor independence or stakeholder representation.
MEASURE 2.1 TEVV test sets, metrics and tools are documented.	SES records scenario strata, test harness, assumptions, versions, estimates and traces. <i>R-BED §§ 6, 7, 10</i>	Relevant contribution Boundary: No prescribed universal benchmark suite.
MEASURE 2.3 Performance or assurance criteria are measured in deployment-like conditions.	System-level tests cover components, trajectories and effects under specified operating contexts and conditions. <i>R-BED §§ 2, 6, 7, 12</i>	Partial Boundary: The specification requires, but does not itself demonstrate, representativeness or performance in any actual deployment.

NIST subcategory (cont.)	R-BED contribution (cont.)	Relationship (cont.)
MEASURE 2.4 Component and system operation is monitored in production.	Monitoring triggers with thresholds and actions are part of the SES; the authorization lapses when invalidation conditions occur. The continuous-evaluation layer adds consequence-linked monitoring items with tier, cadence and latency evidence, and independent validation that a monitor detects seeded failures (CSE Specification Sections 9 and 13). <i>R-BED §§ 3.2, 6, 9–11; CSE 9, 13</i>	Partial Boundary: Specification does not deploy monitoring infrastructure; detection sensitivity measured on seeded failures may overstate real performance.
MEASURE 2.5 Validity and reliability are demonstrated, with limits to generalizability documented.	Predictive Validity and stratified/system testing support bounded validity claims; SES records conditions, error estimates and extrapolation limits. <i>R-BED §§ 3.1, 6, 7, 10</i>	Partial Boundary: Methodology does not itself demonstrate system validity or reliability; actual empirical tests are required.
MEASURE 2.6 Safety risks, safe failure, residual risk and response times are examined.	Safe failure, containment and drills are evaluated per scenario; control effectiveness is estimated with intervals and not credited without evidence; residual risk may not be recorded as zero. <i>R-BED §§ 3, 6, 8, 12</i>	Partial Boundary: No demonstration that any particular deployed system is safe.
MEASURE 2.7 AI system security and resilience, as identified in MAP, are evaluated and documented.	The objectives layer routes security and resilience through the thirteen dimensions and requires a pointer to specialised security testing where in scope. <i>R-BED §§ 4, 7, 11</i>	Partial Boundary: R-BED is not a security assessment; adversarial testing remains a specialised activity.
MEASURE 2.8 Transparency and accountability risks are examined and documented.	SES connects test evidence, uncertainty, reviewers, owners and dispositions to bounded system claims. <i>R-BED §§ 7, 9–11</i>	Partial Boundary: Explanation and interpretation map separately to MEASURE 2.9; external transparency practices require additional processes.
MEASURE 2.9 AI model explanation, validation and interpretation of outputs in context.	Explainability requests reconstruction of material system decisions, including model context, tool trajectories and versioned traces. <i>R-BED §§ 3.1, 7, 10</i>	Partial Boundary: Technical trace reconstruction does not establish adequate explanation or interpretation for users or affected people.
MEASURE 2.10 Privacy risk, as identified in MAP, is examined and documented.	Privacy is a cross-cutting objective with a Consequence Register category and a required pointer to a specialised privacy assessment. <i>R-BED §§ 4, 5, 11</i>	Partial Boundary: R-BED does not perform privacy impact assessment or establish legal compliance.

NIST subcategory (cont.)	R-BED contribution (cont.)	Relationship (cont.)
MEASURE 2.11 Fairness and harmful bias are assessed and results recorded.	Fairness dimension requests stratified outcome/error evidence and uncertainty. <i>R-BED §§ 3.1, 6, 10</i>	Partial Boundary: No universal fairness definition, thresholds or legal assessment.
MEASURE 2.13 Effectiveness of selected TEVV metrics and processes is evaluated.	Evaluation-quality review examines validity, sampling, detection coverage, uncertainty and drift-sensitive retesting. <i>R-BED §§ 6, 7, 9–11</i>	Partial Boundary: A proposed method-review discipline is not a demonstrated organizational TEVV effectiveness program.
MEASURE 3.1 Existing and emerging risks are tracked over time.	Production failures and configuration changes trigger renewed claims and tests. The continuous-evaluation layer adds a gated failure-to-learning loop (Discover, Reproduce, Contain, Fix, Verify, Learn) and consequence-linked tracking priority (CSE Specification Sections 9 and 10). <i>R-BED §§ 6, 7, 9, 11; CSE 9, 10</i>	Partial Boundary: Covers renewed claims and tests triggered by observed events; it does not establish personnel, tracking approaches or incident-capture processes, which depend on the adopting organization.
MEASURE 3.2 Risk tracking approaches are considered where risks are hard to assess or metrics are not yet available.	The Unresolved status, abstention rule and rare-event trial-count guidance keep unmeasured risk visible instead of recording it as zero. <i>R-BED §§ 7, 8, 13</i>	Relevant contribution Boundary: R-BED does not supply the missing measurement; it prevents its absence from being read as safety.

MANAGE — mapped subcategories

NIST AI RMF 1.0 subcategory (summary)	R-BED operational contribution and section	Relationship / condition
MANAGE 1.1 Whether the system achieves intended purposes and whether development or deployment should proceed is determined.	The SES connects evidence about bounded claims and residual gaps to deploy/restrict/rework/suspend decisions. <i>R-BED §§ 6, 9–11</i>	Partial Boundary: Effectiveness against intended objectives and viable non-AI alternatives require a separate benefits/value evaluation; final decisions remain organizational.
MANAGE 1.2 Risk treatments are prioritized by impact, likelihood and resources.	Consequences, exposure and uncertainty guide which safeguards and tests receive attention. <i>R-BED §§ 1, 6, 8, 9, 11</i>	Relevant contribution Boundary: No universal quantitative ranking or optimization rule.

NIST subcategory (cont.)	R-BED contribution (cont.)	Relationship (cont.)
MANAGE 1.3 Responses to high-priority AI risks are planned and documented.	Treatments are typed (avoid, reduce likelihood, reduce consequence, transfer, accept); transfer and acceptance are not credited as harm reduction. <i>R-BED §§ 6, 9–12</i>	Partial Boundary: Records safeguards, owners and retests for selected pathways; prioritization, response options (including transfer or acceptance), decision authority and resource allocation remain with the adopting organization.
MANAGE 1.4 Negative residual risks to downstream acquirers and end users are documented.	Residual risk is recorded per scenario as an upper bound or an explicit abstention, with the limits of the evidence stated. <i>R-BED §§ 9–11</i>	Partial Boundary: A selected-pathway register does not establish that all residual risks for acquirers and end users have been enumerated.
MANAGE 2.1 Resources to manage AI risks are considered, along with viable non-AI alternatives.	The justification record lists alternatives considered; treatments are compared by effect on likelihood and consequence. <i>R-BED §§ 8, 9, 11</i>	Partial Boundary: R-BED does not decide resource allocation or compare alternatives for the organization.
MANAGE 2.3 Previously unknown risks trigger response and recovery.	Newly observed failure regions create re-evaluation and containment obligations. The continuous-evaluation layer requires a reproduction case, containment evidence and a verified fix before a learning record can close (CSE Specification Section 10). <i>R-BED §§ 6, 9, 11, 12; CSE 10</i>	Partial Boundary: Formal incident response and recovery plans remain organizational.
MANAGE 2.4 Procedures enable disengagement/deactivation of inconsistent systems.	Dispositions include Stop (suspend or retire) and Escalate; monitoring triggers can force a stop action. The continuous-evaluation layer adds authority envelopes with reversibility classes and evidence invalidation that reverts a claim to Unresolved and requires the decision authority to review (CSE Specification Sections 5 and 7). <i>R-BED §§ 6, 7, 9–12; CSE 5, 7</i>	Partial Boundary: Does not implement shutdown or change management itself.
MANAGE 3.1 AI risks and benefits from third-party resources are regularly monitored, with controls applied and documented.	Version tuples pin vendor models and tools; changes in them are re-evaluation triggers and invalidate authorization. <i>R-BED §§ 10, 11</i>	Partial Boundary: R-BED does not obtain vendor evidence or assure third parties; vendor claims are recorded as such.

NIST subcategory (cont.)	R-BED contribution (cont.)	Relationship (cont.)
MANAGE 3.2 Pre-trained models used for development are monitored as part of regular monitoring and maintenance.	Model and data version changes trigger retest obligations recorded in the SES. <i>R-BED §§ 9, 10</i>	Partial Boundary: Monitoring operations are outside R-BED; it specifies what change forces re-evaluation.
MANAGE 4.1 Post-deployment monitoring, incident response and change processes exist.	Post-deployment monitoring, re-evaluation triggers (model, tool, data, authority change) and an incident-response owner are recorded. The continuous-evaluation layer assesses each change against declared dependencies, with outcomes no-effect, review, retest or invalid, and records monitoring latency evidence (CSE Specification Sections 5 and 9). <i>R-BED §§ 6, 9–11; CSE 5, 9</i>	Partial Boundary: Requires deployment-specific human appeals, recovery and incident processes; an undeclared dependency defeats proportional invalidation.
MANAGE 4.2 Continual improvement is integrated into updates with stakeholder input.	Fix-and-retest loops preserve changed claims; incidents inform new tests. The continuous-evaluation layer links an incident to a scenario, a control test and the invalidation of dependent evidence (CSE Specification Section 10). <i>R-BED §§ 6, 9, 11; CSE 10</i>	Partial Boundary: Formal stakeholder consultation is not specified in full.
MANAGE 4.3 Incidents and errors are communicated to relevant actors, and tracking, response and recovery are documented.	An incident-response owner is named and monitoring triggers carry actions; incident evidence updates claims and residual risk. The continuous-evaluation layer adds learning records with stage gates and a portfolio report whose decision asks reach the committee (CSE Specification Sections 10 and 11). <i>R-BED §§ 9, 11; CSE 10, 11</i>	Partial Boundary: Communication to affected communities and recovery operations are organizational.

4 Material gaps and non-mapped outcomes

The table deliberately does not assert coverage of all NIST AI RMF subcategories. 21 subcategories are not mapped: GOVERN 1.1, GOVERN 1.2, GOVERN 2.2, GOVERN 3.1, GOVERN 4.1, GOVERN 5.1, GOVERN 5.2, GOVERN 6.1, GOVERN 6.2, MAP 1.2, MAP 1.3, MAP 3.1, MAP 4.1, MAP 5.2, MEASURE 2.2, MEASURE 2.12, MEASURE 3.3, MEASURE 4.1, MEASURE 4.2, MEASURE 4.3, MANAGE 2.2. Among the outcomes not directly implemented by R-BED are:

- **GOVERN 1.1, 6.1 and 6.2:** legal obligations, third-party intellectual-property policies and third-party contingency processes (organization and qualified counsel).
- **GOVERN 1.2, 2.2, 3.1 and 4.1:** integration of trustworthiness characteristics into policy, workforce training, diverse and inclusive teams, and organizational culture.
- **GOVERN 5.1–5.2 and MAP 5.2:** structured engagement with affected communities and external feedback integration.
- **MAP 1.2, 1.3, 3.1 and 4.1:** interdisciplinary team composition, organizational mission and goals, assessment of benefits, and legal risks of components. R-BED records a justification but does not assess benefits.
- **MEASURE 2.2 and 2.12:** human-subject research protections and environmental-impact measurement methods.
- **MEASURE 3.3:** end-user feedback and appeal processes.
- **MEASURE 4.1–4.3:** measurement approaches tied to deployment context and field-data feedback; R-BED contributes parts of this indirectly but was not mapped, to keep labels conservative.
- **MANAGE 2.2:** mechanisms to sustain the value of deployed systems.

A practical deployment can satisfy some of those requirements through other organizational processes. R-BED provides evaluation artifacts that those processes may use but does not make a claim about their completion. Any use case should separately document applicable rules, inclusive consultation, benefits assessment, and risks not mediated by a defined technical failure event.

Interpretation of mappings. MEASURE 2.5, 2.9 and 2.13 are Partial, not evidence of actual system validity, adequate user-facing explanations or measured TEVV effectiveness. MEASURE 2.7 and 2.10 are Partial because R-BED routes security and privacy to specialized assessments and does not perform them. GOVERN 1.6 is Partial because R-BED summarizes records an organization already holds and does not discover systems.

5 How a practitioner uses the two resources

- Begin with the organization's NIST AI RMF Profile and risk tolerance, not with an R-BED score.
- Identify relevant NIST subcategories, then select R-BED artifacts listed in this crosswalk as candidate evidence sources.
- Write a bounded SES for the configured system and include explicit evidence gaps, abstentions or non-applicable areas.
- Challenge the controls independently, record consequences by category, and record residual risk as a bound or an explicit abstention.
- Use the evidence in organizational governance; do not equate a positive test with achievement of a full NIST outcome.

6 References, revision, and public access

Primary reference: NIST, *AI RMF 1.0*, NIST AI 100-1 (2023), <https://doi.org/10.6028/NIST.AI.100-1>; official subcategory text at <https://airc.nist.gov/airmf-resources/airmf/5-sec-core/>. NIST notes that AI RMF 1.0 is being updated. Mapping labels and outcome descriptions above are the independent author's summaries, not official NIST text. All 72 subcategory IDs were checked against the published AI RMF 1.0 Core; the sixteen subcategories added in v2.1 were additionally checked for wording against a public mirror of the Core text on 29 October 2026.

Mapped framework: V.K. Srivastava, *R-BED: Risk-Based Evaluability Design — Public Framework v2.1* (29 October 2026). Public framework PDF: https://rbed.ai/RBED_Public_Framework_v2.1.pdf. Crosswalk PDF: https://rbed.ai/NIST_AI_RMF_RBED_Crosswalk_v2.1.pdf.

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