

Bickford Technologies

Synthetic sample: the company, system and data are invented for demonstration.

AI Workflow Evidence Pack

Acme Life & Health (synthetic sample)

uw-risk-score: Underwriting triage for individual term life applications

Report	BICK-DIAG-sample-acme-life-20260924
Date	2026-09-24
Prepared by	AI Workflow Evidence Pack software, Bickford Technologies
Frameworks	ISO/IEC 42001:2023 · NIST AI RMF 1.0 · EU AI Act (Regulation (EU) 2024/1689, as amended)
Generated	2026-10-30T02:35:19Z · engine 1.1.0 · controls 1.1.0

Confidential. Prepared for Acme Life & Health (synthetic sample). This report assesses evidence; it is not legal advice, an audit opinion or a certification.

1. Executive summary

39/100

EVIDENCE READINESS

5/24

CHECKS PASSED

9

HIGH-RISK FINDINGS

9 · 1

MEDIUM · LOW

uw-risk-score, used by Acme Life & Health (synthetic sample) for underwriting triage for individual term life applications, makes about 250 decisions a month. We replayed 1,231 decision records (2026-04-01 to 2026-08-31) into a hash-chained ledger, measured them against 9 evidence checks, and scored 15 governance practices, mapped to ISO/IEC 42001, the NIST AI RMF and the EU AI Act. Of 24 checks, 5 pass, 10 are partial, 9 show a gap and 0 could not be evidenced. The 6 prompt-governance checks are not applicable: the intake states the system does not use prompts.

Top priorities

1. Human review recorded where the oversight rule requires it **HIGH**

A reviewer is recorded on 612 of 705 decisions the review rule covers (86.8%). By file: Q2 export (JSONL) 93.1%, Q3 export (CSV) 78.8%. Rule: review when output is refer_underwriter or decline, or amount is at least 1,000,000.

2. AI incident response and reporting **HIGH**

The IT incident process does not cover model errors.

3. Overrides carry a reason **HIGH**

A reason is recorded on 43 of 60 overrides (71.7%). By file: Q2 export (JSONL) 65.0%, Q3 export (CSV) 85.0%.

EU AI Act. The system appears to be high-risk under the EU AI Act, so the high-risk obligations below apply. Basis: Annex III point 5(c): risk assessment and pricing for natural persons in life and health insurance.

REVIEWER'S NOTE

Acme validated its model well; the gap is evidence at the level of the individual decision. Fix oversight recording and version control first: they are the findings a regulator or a declined applicant's lawyer would reach first.

Start this week

- Block release of decisions that meet the review rule until a reviewer ID is recorded. (Operations + Engineering)
- Require a coded reason (plus free text) whenever a reviewer changes the model's decision. (Operations)
- Add the unlisted versions to the inventory with an approval record, and gate deployment on an inventory entry. (Model owner)
- Set log retention to at least six months (longer if other rules require) and test a restore. (Engineering)

2. Scope and method

Organization	Acme Life & Health (synthetic sample): Life and health insurance, About 180 employees; United States, Ireland (EU branch)
System	uw-risk-score. An in-house gradient-boosted model scores each application for mortality risk. Low scores are approved at standard rates, middle scores go to an underwriter, and the highest scores are declined, subject to underwriter review.
Role	Provider and deployer (builds and uses the system)
People affected	Individual applicants for term life cover, including EU residents served by the Irish branch
Decision logs	Q2 export (JSONL): 721 rows (JSONL), 13 of 16 fields mapped Q3 export (CSV): 510 rows (CSV), 12 of 16 fields mapped
Prompts	Not used, per the intake; the prompt-governance checks are not applicable.

Operating snapshot

Decisions	1,231 over 153 days (8.0 a day), 2026-04-01 to 2026-08-31
Model versions	uw-risk-score 2.4.0 634 (51.5%) uw-risk-score 2.3.0 291 (23.6%) uw-risk-score 2.4.1-hotfix 244 (19.8%) not recorded 62 (5.0%)
Outcomes	approve_standard 801 (65.1%) refer_underwriter 296 (24.0%) decline 134 (10.9%)
Needing review	705 decisions met the review rule
Overrides	60 (9.8% of reviewed decisions)

Method

Each **log check** is measured on every decision record after the customer's columns are mapped to a common record. Each **practice check** is scored from the answers and documents provided. Every check is marked Pass, Partial, Gap or Not evidenced. Checks that do not apply to this system are marked Not applicable and left out of the score. Risk is impact (1 to 5, set per check) times likelihood (Gap 5, Not evidenced 4, Partial 3): 15 and above is High, 8 to 14 Medium, below 8 Low. Every decision record was also appended, in time order, to a SHA-256 hash chain (Appendix A).

Reviewer adjustments

- **BICK-LIT-01** Not evidenced → Partial: Underwriters completed vendor platform training in 2025; it has no module on the model's limits.

Data notes

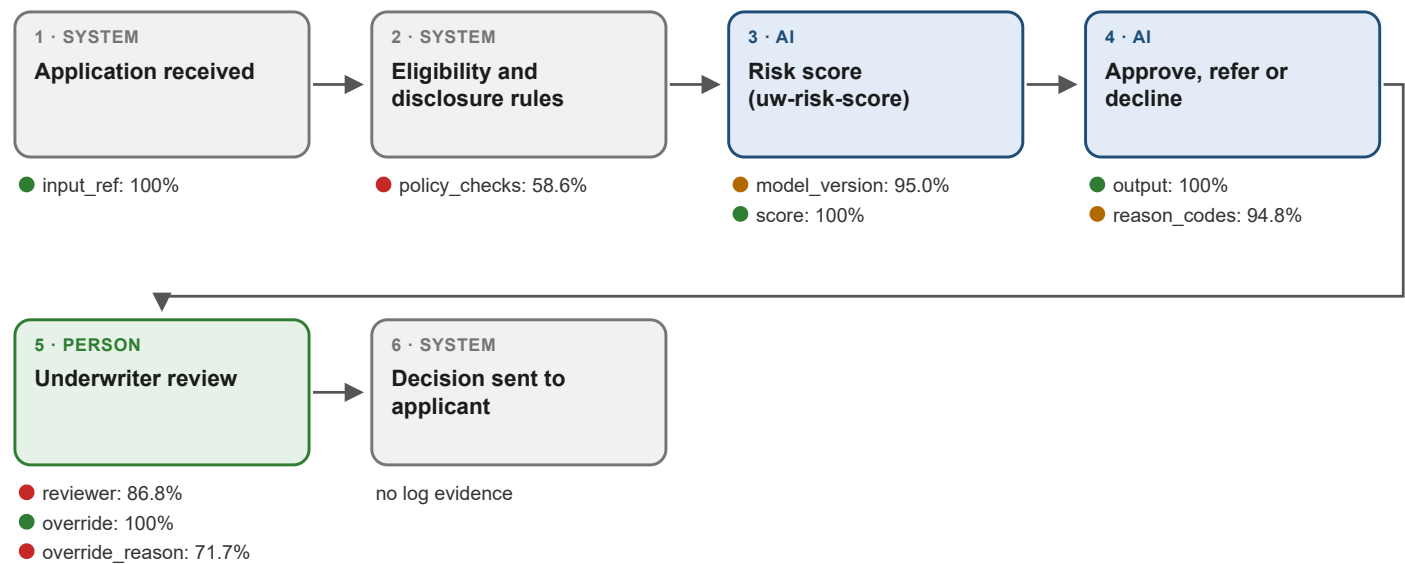
- Q3 export (CSV): 510 timestamps had no time zone and were read as UTC

Limits

This pack tests whether the evidence exists, not whether the model is accurate or fair. Control references use Bickford Technologies' own paraphrases, not the text of the standards. Whether a law applies, and what it requires of this organization, is a question for counsel.

3. Workflow map

Each step of the decision, who performs it, and the evidence it leaves in the logs. The share is measured on the decisions where the evidence is expected (reviewers on decisions the review rule covers, reasons on overrides, reason codes on adverse outcomes). ● 99% or more ● 90–99% ● below 90% or not logged



#	STEP	PERFORMED BY	WHAT HAPPENS
1	Application received	System	Application and disclosures arrive from the agent portal.
2	Eligibility and disclosure rules	System	Age band, disclosure completeness and MIB checks run.
3	Risk score (uw-risk-score)	AI	The model scores mortality risk from 0 to 1.
4	Approve, refer or decline	AI	Score thresholds route the application.
5	Underwriter review	Person	Referrals, declines and face amounts of \$1M or more go to an underwriter, who may override.
6	Decision sent to applicant	System	Offer or decline letter issued through the policy admin system.

4. Gap analysis

Each control's status is the weakest result among the checks that evidence it.

ISO/IEC 42001 · 4 of 26 controls evidenced

REF	WHAT IT ASKS (OUR PARAPHRASE)	STATUS	CHECKS
4.3	The organization decides which AI systems and activities its AI management system covers.	PASS	BICK-GOV-03
5.2	Top management sets an AI policy that fits the organization.	PARTIAL	BICK-GOV-01
5.3	AI roles, responsibilities and authorities are assigned and communicated.	PASS	BICK-GOV-02
6.1.2	A defined, repeatable process assesses AI risks.	PARTIAL	BICK-RSK-01
6.1.4	A defined process assesses how AI systems affect individuals, groups and society.	GAP	BICK-RSK-02
7.2	People doing AI work are competent, and gaps are closed through training or hiring.	PARTIAL	BICK-LIT-01
7.3	People know the AI policy and their part in it.	PARTIAL	BICK-LIT-01
7.5	Required records are created, kept current and protected, including against loss of integrity.	GAP	BICK-REC-02
8.2	AI risk assessments are run at planned intervals and when significant changes happen.	PARTIAL	BICK-RSK-01
9.1	The organization decides what to monitor and measure, how and when, and evaluates the results.	GAP	BICK-MON-01
10.2	Nonconformities are contained, corrected and their causes addressed.	GAP	BICK-INC-01
A.2.2	A documented policy governs the development or use of AI systems.	PARTIAL	BICK-GOV-01
A.3.2	Roles and responsibilities for AI are defined and allocated.	PASS	BICK-GOV-02 BICK-PRM-04
A.5.2	A process exists to assess the consequences of AI systems for people and society.	GAP	BICK-RSK-02
A.5.4	Impacts on individuals or groups are assessed and documented.	GAP	BICK-RSK-02
A.6.2.4	Verification and validation criteria are defined and met before release.	PASS	BICK-VAL-01 BICK-PRM-03 BICK-PRM-06
A.6.2.5	Deployment follows a documented plan and release requirements.	GAP	BICK-LOG-09 BICK-PRM-02 BICK-PRM-03 BICK-PRM-05

A.6.2.6	Systems in operation are monitored, and repairs and updates are managed.	GAP	BICK-LOG-02 BICK-LOG-09 BICK-MON-01 BICK-PRM-01 BICK-PRM-02 BICK-PRM-05
A.6.2.7	Technical documentation is kept and available to those who need it.	PARTIAL	BICK-DOC-01
A.6.2.8	Event logs are recorded, at minimum while the system is in use.	GAP	BICK-LOG-01 BICK-LOG-02 BICK-LOG-03 BICK-LOG-04 BICK-REC-01 BICK-REC-02 BICK-PRM-01
A.7.4	Data quality requirements are defined and data meets them.	PARTIAL	BICK-DAT-01
A.7.5	The provenance of data is recorded across its life.	PARTIAL	BICK-LOG-03 BICK-DAT-01
A.8.2	Users get the information they need about the AI system.	PARTIAL	BICK-LOG-08
A.8.4	There is a plan for communicating incidents to users and other interested parties.	GAP	BICK-INC-01
A.9.2	Processes for responsible use of AI systems are defined and documented.	GAP	BICK-LOG-05 BICK-LOG-06 BICK-HUM-01 BICK-PRM-05
A.10.3	Suppliers' products and services fit the organization's approach to responsible AI.	PARTIAL	BICK-TPR-01

NIST AI RMF 1.0 · 3 of 20 controls evidenced

REF	WHAT IT ASKS (OUR PARAPHRASE)	STATUS	CHECKS
GOVERN 1.1	The organization knows which laws and regulations touch its AI and keeps a record of them.	PARTIAL	BICK-RSK-01
GOVERN 1.2	Trustworthy-AI characteristics are built into policies, processes and practices.	PARTIAL	BICK-GOV-01
GOVERN 1.4	Risk management runs through transparent policies, procedures and controls.	GAP	BICK-LOG-05 BICK-PRM-03 BICK-PRM-05
GOVERN 1.6	The organization keeps a list of its AI systems, and effort follows risk.	GAP	BICK-LOG-09 BICK-GOV-03 BICK-PRM-02 BICK-PRM-04
GOVERN 2.1	Roles, responsibilities and lines of communication for AI risk are documented and clear.	PASS	BICK-GOV-02 BICK-PRM-04
GOVERN 2.2	Staff and partners get AI risk management training.	PARTIAL	BICK-LIT-01

GOVERN 3.2	Policies define roles for human-AI configurations and human oversight.	GAP	BICK-LOG-06 BICK-HUM-01
GOVERN 4.3	The organization tests its AI, spots incidents and shares what it learns.	GAP	BICK-INC-01
GOVERN 6.1	Policies address risks from third-party AI, software and data.	PARTIAL	BICK-TPR-01
MAP 1.1	Intended purpose, context of use and applicable laws are understood and documented.	PARTIAL	BICK-RSK-01
MAP 3.5	How people oversee the system is written down, and that oversight is itself checked.	GAP	BICK-LOG-06 BICK-LOG-07 BICK-HUM-01
MAP 5.1	The likelihood and size of each identified impact are documented.	GAP	BICK-RSK-02
MEASURE 2.3	Performance is measured and shown under conditions like deployment.	PASS	BICK-VAL-01 BICK-PRM-06
MEASURE 2.4	The system's behavior is monitored in production.	GAP	BICK-LOG-04 BICK-MON-01
MEASURE 2.7	The system's security and resilience are evaluated and documented.	NOT APPLICABLE	BICK-PRM-06
MEASURE 2.8	Transparency and accountability risks are examined and documented.	GAP	BICK-LOG-02 BICK-REC-02 BICK-PRM-01
MEASURE 2.9	The model is explained and its output interpreted in context.	PARTIAL	BICK-LOG-08
MEASURE 2.11	The system is checked for unfair bias, and the results are recorded.	PASS	BICK-VAL-01
MANAGE 3.1	Risks from third-party resources are monitored and controlled.	PARTIAL	BICK-TPR-01
MANAGE 4.1	Post-deployment monitoring runs, including override, appeal and incident response.	GAP	BICK-LOG-07 BICK-MON-01
MANAGE 4.3	Incidents and errors are tracked, responded to and communicated.	GAP	BICK-INC-01

EU AI Act · 1 of 15 controls evidenced

The system appears to be high-risk under the EU AI Act, so the high-risk obligations below apply. Basis: Annex III point 5(c): risk assessment and pricing for natural persons in life and health insurance.

REF	WHAT IT ASKS (OUR PARAPHRASE)	STATUS	CHECKS
Art. 4	Providers and deployers take measures to build AI literacy among staff who operate or use AI systems.	PARTIAL	BICK-LIT-01
Art. 9	High-risk systems have a risk management system that runs across their life.	PARTIAL	BICK-RSK-01

Art. 10	Training, validation and test data meet data governance and quality criteria.	PARTIAL	BICK-DAT-01
Art. 11	Technical documentation is drawn up before release and kept current.	PARTIAL	BICK-DOC-01
Art. 12	High-risk systems are built to allow automatic event logging over their lifetime.	PARTIAL	BICK-LOG-01 BICK-LOG-02 BICK-LOG-03 BICK-LOG-04 BICK-PRM-01
Art. 13	High-risk systems are transparent enough for deployers to interpret and use their output.	PARTIAL	BICK-LOG-08
Art. 14	High-risk systems are designed for effective human oversight while in use.	GAP	BICK-LOG-06 BICK-LOG-07 BICK-HUM-01
Art. 15	High-risk systems reach appropriate accuracy, robustness and cybersecurity.	PASS	BICK-VAL-01 BICK-PRM-06
Art. 17	Providers of high-risk systems run a documented quality management system.	PARTIAL	BICK-GOV-01 BICK-PRM-03 BICK-PRM-05
Art. 19	Providers keep automatically generated logs for an appropriate period, at least six months.	GAP	BICK-REC-01
Art. 26	Deployers use high-risk systems as instructed, assign competent human oversight, monitor, keep logs at least six months and inform affected people.	GAP	BICK-LOG-06 BICK-GOV-02 BICK-MON-01 BICK-INC-01 BICK-REC-01
Art. 27	Certain deployers assess the impact on fundamental rights before first use.	GAP	BICK-RSK-02
Art. 72	Providers run post-market monitoring in proportion to the system's risks.	GAP	BICK-MON-01
Art. 73	Serious incidents are reported to market surveillance authorities.	GAP	BICK-INC-01
Art. 86	People affected by certain high-risk decisions can obtain a clear explanation of the system's role.	PARTIAL	BICK-LOG-08

5. Findings, ranked by risk

19 findings. Checks that pass are listed in Appendix B.

#	FINDING AND EVIDENCE	RISK	CONTROLS
1	Human review recorded where the oversight rule requires it GAP BICK-LOG-06 A reviewer is recorded on 612 of 705 decisions the review rule covers (86.8%). By file: Q2 export (JSONL) 93.1%, Q3 export (CSV) 78.8%. Rule: review when output is refer_underwriter or decline, or amount is at least 1,000,000. Why it matters: If a decision needed a person and the record shows none, the business cannot show oversight happened.	HIGH impact 5 × likelihood 5 = 25	ISO A.9.2 NIST GOVERN 3.2 NIST MAP 3.5 EU AI Act Art. 14 EU AI Act Art. 26
2	AI incident response and reporting GAP BICK-INC-01 The IT incident process does not cover model errors. Why it matters: When a model misbehaves, the clock for containment and any regulatory report starts immediately.	HIGH impact 4 × likelihood 5 = 20	ISO 10.2 ISO A.8.4 NIST GOVERN 4.3 NIST MANAGE 4.3 EU AI Act Art. 26 EU AI Act Art. 73
3	Overrides carry a reason GAP BICK-LOG-07 A reason is recorded on 43 of 60 overrides (71.7%). By file: Q2 export (JSONL) 65.0%, Q3 export (CSV) 85.0%. Why it matters: An override without a reason cannot be audited, and patterns of disagreement with the model go unseen.	HIGH impact 4 × likelihood 5 = 20	NIST MAP 3.5 NIST MANAGE 4.1 EU AI Act Art. 14
4	Every model version in production is in the approved inventory GAP BICK-LOG-09 uw-risk-score 2.4.1-hotfix made 244 decisions (20.9% of versioned decisions) but is not in the inventory. Why it matters: A version that makes decisions without being inventoried and approved is outside every other control.	HIGH impact 4 × likelihood 5 = 20	NIST GOVERN 1.6 ISO A.6.2.5 ISO A.6.2.6
5	Production monitoring with thresholds and owners GAP BICK-MON-01 A monthly volume report only; no drift, override-rate or review-coverage thresholds. Why it matters: Drift, rising overrides and silent failures are found by monitoring or by a regulator.	HIGH impact 4 × likelihood 5 = 20	ISO 9.1 ISO A.6.2.6 NIST MEASURE 2.4 NIST MANAGE 4.1 EU AI Act Art. 26 EU AI Act Art. 72
6	Decision logs kept for at least six months GAP BICK-REC-01 Decision logs are kept for 90 days; the minimum used here is 183 days (six months). The logs provided cover 153 days (2026-04-01 to 2026-08-31). Why it matters: Logs that are deleted before anyone asks cannot answer a complaint, an audit or a regulator.	HIGH impact 4 × likelihood 5 = 20	ISO A.6.2.8 EU AI Act Art. 19 EU AI Act Art. 26
7	Decision records are tamper-evident GAP BICK-REC-02 Decision logs sit in a shared database table the analytics team can edit. Why it matters: Evidence that can be edited without a trace is not evidence.	HIGH impact 4 × likelihood 5 = 20	ISO 7.5 ISO A.6.2.8 NIST MEASURE 2.8

8	An assessment of impact on the people affected GAP BICK-RSK-02 No assessment of impact on applicants has been done. Why it matters: The people on the receiving end of a decision are the ones regulators protect.	HIGH impact 4 × likelihood 5 = 20	ISO 6.1.4 ISO A.5.2 ISO A.5.4 NIST MAP 5.1 EU AI Act Art. 27
9	Policy checks recorded per decision GAP BICK-LOG-05 Policy check results recorded on 721 of 1,231 decisions (58.6%). By file: Q2 export (JSONL) 100.0%, Q3 export (CSV) 0.0%. Why it matters: Showing that a rule ran on a decision is what turns a written policy into evidence.	HIGH impact 3 × likelihood 5 = 15	ISO A.9.2 NIST GOVERN 1.4
10	A written human-oversight procedure PARTIAL BICK-HUM-01 Referral guidelines exist; who may override, and how, is not written down. Why it matters: Reviewers need written rules for when to step in and what authority they have.	MEDIUM impact 4 × likelihood 3 = 12	ISO A.9.2 NIST GOVERN 3.2 NIST MAP 3.5 EU AI Act Art. 14
11	Model version recorded on every decision PARTIAL BICK-LOG-02 Model version recorded on 1,169 of 1,231 decisions (95.0%). By file: Q2 export (JSONL) 91.4%, Q3 export (CSV) 100.0%. Why it matters: A decision that cannot be tied to the model that made it cannot be explained or re-run after a model change.	MEDIUM impact 4 × likelihood 3 = 12	ISO A.6.2.8 ISO A.6.2.6 NIST MEASURE 2.8 EU AI Act Art. 12
12	Adverse outcomes carry reason codes PARTIAL BICK-LOG-08 Reason codes recorded on 127 of 134 adverse outcomes (94.8%). By file: Q2 export (JSONL) 93.7%, Q3 export (CSV) 96.4%. Adverse outcomes: decline. Why it matters: People who receive an adverse decision can be owed an explanation; reason codes are how one is produced.	MEDIUM impact 4 × likelihood 3 = 12	NIST MEASURE 2.9 ISO A.8.2 EU AI Act Art. 13 EU AI Act Art. 86
13	A documented risk assessment for this system PARTIAL BICK-RSK-01 A model risk assessment exists for version 2.3.0 only. Why it matters: Regulators and auditors start by asking what could go wrong and what the business decided to do about it.	MEDIUM impact 4 × likelihood 3 = 12	ISO 6.1.2 ISO 8.2 NIST GOVERN 1.1 NIST MAP 1.1 EU AI Act Art. 9
14	Data quality and provenance controls PARTIAL BICK-DAT-01 Training data sources are listed; no data quality checks or lineage for decision-time prescription data. Why it matters: A model is only as defensible as the data it learned from and reads at decision time.	MEDIUM impact 3 × likelihood 3 = 9	ISO A.7.4 ISO A.7.5 EU AI Act Art. 10
15	Current technical documentation PARTIAL BICK-DOC-01 Model card describes 2.3.0; not updated for 2.4.x. Why it matters: Documentation lets someone other than the builder understand, audit and maintain the system.	MEDIUM impact 3 × likelihood 3 = 9	ISO A.6.2.7 EU AI Act Art. 11

16	An approved AI policy PARTIAL BICK-GOV-01 Draft AI policy v0.3 (March 2026) is not yet approved by the board risk committee. Why it matters: A policy leadership has approved is the anchor every other control points back to.	MEDIUM impact 3 × likelihood 3 = 9	ISO 5.2 ISO A.2.2 NIST GOVERN 1.2 EU AI Act Art. 17
17	Every decision has a unique ID and a valid timestamp PARTIAL BICK-LOG-01 1,228 of 1,231 decisions (99.8%) have a unique ID and a readable timestamp. Duplicate IDs: 3; missing IDs: 0; missing or unreadable timestamps: 0. Why it matters: Without them, a single decision cannot be found, ordered or proven to exist.	MEDIUM impact 3 × likelihood 3 = 9	ISO A.6.2.8 EU AI Act Art. 12
18	Third-party model and data risk managed PARTIAL BICK-TPR-01 Prescription-history data vendor reviewed in 2024; no AI-specific contract terms. Why it matters: Vendors' models and data carry risk the business still answers for.	MEDIUM impact 3 × likelihood 3 = 9	ISO A.10.3 NIST GOVERN 6.1 NIST MANAGE 3.1
19	Staff who operate the system are trained PARTIAL BICK-LIT-01 No answer or evidence was provided. Why it matters: Reviewers who do not understand the model's limits rubber-stamp it. Adjusted by reviewer: Underwriters completed vendor platform training in 2025; it has no module on the model's limits.	LOW impact 2 × likelihood 3 = 6	ISO 7.2 ISO 7.3 NIST GOVERN 2.2 EU AI Act Art. 4

6. 30-day remediation plan

Highest risk first, each action in the earliest week it can start, within 6 person-days a week. Effort is an estimate for a team that knows the system.

Week 1 · days 1–7 · 6 of 6 person-days

ACTION	OWNER	EFFORT	DONE WHEN	FINDING
Block release of decisions that meet the review rule until a reviewer ID is recorded.	Operations + Engineering	3 days	No decision meeting the rule is released without a reviewer.	HIGH BICK-LOG-06
Require a coded reason (plus free text) whenever a reviewer changes the model's decision.	Operations	1 day	Every override in a week has a reason code.	HIGH BICK-LOG-07
Add the unlisted versions to the inventory with an approval record, and gate deployment on an inventory entry.	Model owner	1 day	Every version seen in the logs has an inventory entry and approval date.	HIGH BICK-LOG-09
Set log retention to at least six months (longer if other rules require) and test a restore.	Engineering	1 day	Retention is configured and a restore of a six-month-old record works.	HIGH BICK-REC-01

Week 2 · days 8–14 · 6 of 6 person-days

ACTION	OWNER	EFFORT	DONE WHEN	FINDING
Add AI incidents to the incident process: triggers, severity, owners, rollback and who notifies whom.	Risk + Engineering	2 days	An AI incident runbook exists and has been walked through once.	HIGH BICK-INC-01
Write decision records to an append-only, hash-chained ledger and verify the chain on a schedule (Appendix A replays your logs this way).	Engineering	3 days	Daily chain verification passes and edits are detectable.	HIGH BICK-REC-02
Make the decision ID and a UTC timestamp mandatory at write time, and reject duplicates.	Engineering	1 day	A week of logs has zero missing or duplicate IDs.	MEDIUM BICK-LOG-01

Week 3 · days 15–21 · 6 of 6 person-days

ACTION	OWNER	EFFORT	DONE WHEN	FINDING
Monitor score drift, override rate and review coverage weekly, with thresholds that page an owner.	Model owner	3 days	A dashboard with thresholds and a named owner is live.	HIGH BICK-MON-01
Assess and document the impact on applicants and other affected groups, with mitigations.	Risk + Compliance	3 days	A dated impact assessment is approved.	HIGH BICK-RSK-02

Week 4 · days 22–30 · 6 of 6 person-days

ACTION	OWNER	EFFORT	DONE WHEN	FINDING
Emit each policy check and its result into the decision record, including in every export path.	Engineering	2 days	Every decision lists the checks that ran and their results.	HIGH BICK-LOG-05
Write the oversight procedure: which decisions need review, who may override, and how overrides are recorded.	Operations	2 days	The procedure is approved and reviewers have acknowledged it.	MEDIUM BICK-HUM-01
Stamp the model name and version on every decision record from the serving layer, not from batch jobs.	Engineering	2 days	100% of new decisions carry a model version.	MEDIUM BICK-LOG-02

After day 30

ACTION	OWNER	EFFORT	DONE WHEN	FINDING
Generate and store reason codes for every adverse outcome at decision time.	Data science	3 days	Every adverse outcome has at least one reason code.	MEDIUM BICK-LOG-08
Assess risks for the current model version, including legal requirements, and record the treatment decisions.	Risk	3 days	A dated risk assessment covers the version in production.	MEDIUM BICK-RSK-01
Document data sources, quality checks and lineage for training and decision-time data.	Data science	3 days	Each data source has an owner, a quality check and a lineage record.	MEDIUM BICK-DAT-01
Bring the model card and system documentation up to the version in production.	Data science	2 days	Documentation matches the production version.	MEDIUM BICK-DOC-01
Finish the AI policy and get it approved by the accountable executive or committee.	Executive sponsor	2 days	A signed, dated policy is on file.	MEDIUM BICK-GOV-01
Add AI-specific terms and reviews for vendors that supply models or data to this system.	Procurement + Risk	2 days	Each AI-relevant vendor has a current review and contract terms.	MEDIUM BICK-TPR-01
Train reviewers on what the model does, its limits and when to override; record completion.	Operations	1 day	Every reviewer has a recorded completion.	LOW BICK-LIT-01

Appendix A. Evidence ledger

Every decision record with a readable timestamp was appended, in time order, to a hash-chained ledger. Each record's hash is SHA-256 over the canonical JSON (RFC 8785) of {prev_hash, timestamp, entry}, where prev_hash is the previous record's hash. Changing, removing or reordering any record changes every hash after it, so the last hash below fingerprints the whole set of decisions reviewed.

Records appended	1,231
First record	UW-2026-001040 at 2026-04-01T14:32:06.000Z
First hash	07dff03791946935d3561993bacee7e1f1866ac7e12903fe7e03365f7941474b
Last record	UW-2026-002267 at 2026-08-31T19:42:20.000Z
Last hash (head)	ee8eff1a756e7cc7488114cf98847bd44e5193124408cd04fbe867ab62ff9eef
Chain length	1,231
Verification	Passed: all 1,231 records re-hashed from the genesis value and matched.

The chain is delivered as ledger.jsonl, one record per line. Anyone can re-verify it with any SHA-256 and RFC 8785 implementation; the replay is deterministic, so running it again on the same logs gives the same hashes.

Appendix B. Checks and control references

CHECK	WHAT IT TESTS	KIND	IMPACT	RESULT	MAPPED CONTROLS
BICK-LOG-01	Every decision has a unique ID and a valid timestamp	Logs	3	PARTIAL	ISO A.6.2.8 EU AI Act Art. 12
BICK-LOG-02	Model version recorded on every decision	Logs	4	PARTIAL	ISO A.6.2.8 ISO A.6.2.6 NIST MEASURE 2.8 EU AI Act Art. 12
BICK-LOG-03	Inputs traceable to a source record	Logs	3	PASS	ISO A.6.2.8 ISO A.7.5 EU AI Act Art. 12
BICK-LOG-04	Output and score recorded	Logs	3	PASS	ISO A.6.2.8 NIST MEASURE 2.4 EU AI Act Art. 12
BICK-LOG-05	Policy checks recorded per decision	Logs	3	GAP	ISO A.9.2 NIST GOVERN 1.4
BICK-LOG-06	Human review recorded where the oversight rule requires it	Logs	5	GAP	ISO A.9.2 NIST GOVERN 3.2 NIST MAP 3.5 EU AI Act Art. 14 EU AI Act Art. 26
BICK-LOG-07	Overrides carry a reason	Logs	4	GAP	NIST MAP 3.5 NIST MANAGE 4.1 EU AI Act Art. 14
BICK-LOG-08	Adverse outcomes carry reason codes	Logs	4	PARTIAL	NIST MEASURE 2.9 ISO A.8.2 EU AI Act Art. 13 EU AI Act Art. 86
BICK-LOG-09	Every model version in production is in the approved inventory	Logs	4	GAP	NIST GOVERN 1.6 ISO A.6.2.5 ISO A.6.2.6
BICK-GOV-01	An approved AI policy	Practice	3	PARTIAL	ISO 5.2 ISO A.2.2 NIST GOVERN 1.2 EU AI Act Art. 17
BICK-GOV-02	A named owner and oversight roles for this system	Practice	4	PASS	ISO 5.3 ISO A.3.2 NIST GOVERN 2.1 EU AI Act Art. 26
BICK-GOV-03	An inventory of AI systems	Practice	3	PASS	NIST GOVERN 1.6 ISO 4.3
BICK-RSK-01	A documented risk assessment for this system	Practice	4	PARTIAL	ISO 6.1.2 ISO 8.2 NIST GOVERN 1.1 NIST MAP 1.1 EU AI Act Art. 9
BICK-RSK-02	An assessment of impact on the people affected	Practice	4	GAP	ISO 6.1.4 ISO A.5.2 ISO A.5.4 NIST MAP 5.1 EU AI Act Art. 27

BICK-DAT-01	Data quality and provenance controls	Practice	3	PARTIAL	ISO A.7.4 ISO A.7.5 EU AI Act Art. 10
BICK-VAL-01	Validation before release, including bias testing	Practice	4	PASS	ISO A.6.2.4 NIST MEASURE 2.3 NIST MEASURE 2.11 EU AI Act Art. 15
BICK-HUM-01	A written human-oversight procedure	Practice	4	PARTIAL	ISO A.9.2 NIST GOVERN 3.2 NIST MAP 3.5 EU AI Act Art. 14
BICK-MON-01	Production monitoring with thresholds and owners	Practice	4	GAP	ISO 9.1 ISO A.6.2.6 NIST MEASURE 2.4 NIST MANAGE 4.1 EU AI Act Art. 26 EU AI Act Art. 72
BICK-INC-01	AI incident response and reporting	Practice	4	GAP	ISO 10.2 ISO A.8.4 NIST GOVERN 4.3 NIST MANAGE 4.3 EU AI Act Art. 26 EU AI Act Art. 73
BICK-TPR-01	Third-party model and data risk managed	Practice	3	PARTIAL	ISO A.10.3 NIST GOVERN 6.1 NIST MANAGE 3.1
BICK-DOC-01	Current technical documentation	Practice	3	PARTIAL	ISO A.6.2.7 EU AI Act Art. 11
BICK-LIT-01	Staff who operate the system are trained	Practice	2	PARTIAL	ISO 7.2 ISO 7.3 NIST GOVERN 2.2 EU AI Act Art. 4
BICK-REC-01	Decision logs kept for at least six months	Intake	4	GAP	ISO A.6.2.8 EU AI Act Art. 19 EU AI Act Art. 26
BICK-REC-02	Decision records are tamper-evident	Practice	4	GAP	ISO 7.5 ISO A.6.2.8 NIST MEASURE 2.8
BICK-PRM-01	Prompt version recorded on every decision	Logs	4	NOT APPLICABLE	ISO A.6.2.8 ISO A.6.2.6 NIST MEASURE 2.8 EU AI Act Art. 12
BICK-PRM-02	Every prompt version in production is in the approved prompt registry	Logs	4	NOT APPLICABLE	NIST GOVERN 1.6 ISO A.6.2.5 ISO A.6.2.6
BICK-PRM-03	Every registered prompt version carries an approver, an approval date and a test record	Intake	4	NOT APPLICABLE	ISO A.6.2.4 ISO A.6.2.5 NIST GOVERN 1.4 EU AI Act Art. 17
BICK-PRM-04	A prompt registry with a named owner for each prompt	Practice	3	NOT APPLICABLE	NIST GOVERN 1.6 NIST GOVERN 2.1 ISO A.3.2
BICK-PRM-05	A written prompt change procedure	Practice	4	NOT APPLICABLE	ISO A.6.2.5 ISO A.6.2.6 ISO A.9.2 NIST GOVERN 1.4 EU AI Act Art. 17

BICK-PRM-06	Prompts are tested before release, including for injection and data leakage	Practice 4	NOT APPLICABLE	ISO A.6.2.4 NIST MEASURE 2.3 NIST MEASURE 2.7 EU AI Act Art. 15
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