AEXIA™ CARD

AI System Sheet

Completed example fictitious Meridian system AEXIA™ Framework V3.1

FICTITIOUS EXAMPLE. Meridian Bank, synthetic data from the AEXIA case study. Values show how to fill in the card; they describe no real system. Fields [in yellow] are to be completed by the organisation.

Card ID	AEXIA-MERSCR01	**Card version (x.y.z)**	0.3.0
Framework version	AEXIA™ V3.1	**Card status**	☐ Draft ☒ In review ☐ Approved ☐ Archived

ID: AEXIA- followed by 8 uppercase letters or digits (field id). Version: three numbers separated by dots (field version).

1 Identification

System name *system_name*	Meridian consumer-credit scoring
Internal code	MER-SCR-01
Purpose and supported decision	Support for consumer-credit granting; final decision by an adviser. Shadow mode during qualification: no decision applied to customers.
People affected	Credit applicants (customers and prospects)
Fully automated decision (GDPR art. 22)	☐ Yes ☒ No
Business owner (Data Owner)	Retail credit department (role)
Technical lead	Head of data science
XAI Data Steward	Credit-domain data steward
First deployment date	2026-09-01 (shadow mode)
Production model version	gbm-2.1
Last card update	2026-10-24

2 AI Act classification

Risk category *classification_ai_act*	☐ Unacceptable (art. 5) ☐ High risk, Annex I ☒ High risk, Annex III ☐ Limited risk (art. 50) ☐ Minimal risk
Applicable annex and point	Annex III, point 5: creditworthiness assessment of natural persons
Applicable date	☒ 2 Dec 2027 (Annex III) ☐ 2 Aug 2028 (products, Annex I)
Classification rationale	Credit-assessment system within Annex III; no Article 6(3) exemption relied upon.
AEXIA effort level (proportionality)	☐ Light ☐ Standard ☒ Full
Last review / next review	2026-10-10 / 2027-04-10

3 AEXIA™-S level

Current level (S0–S9)	S5	**Expected level S_att**	S8
Date obtained	2026-06-30	**Deciding body**	DGC
Environment	Representative	**Data readiness level**	S4

The level is that of the least mature component (weakest link). S_att depends on the system's criticality and intended use.

Gate	Required artefacts	Body	Date	Decision	File / comment
S2 → S3	AI Act risk sheet, classification, data-readiness review	Data Owner + Data Steward	2026-03-12	☒Passed ☐Failed	DOS-MER-01 / G23
S5 → S6	XAI method justification, quality thresholds, risk quantification	DGC (critical gate)	2026-10-08	☐Passed ☒Failed	Quality thresholds and risk quantification not finalised
S7 → S8	Complete compliance file, frozen reference dataset, monitoring procedure	DGC + DPO		☐Passed ☐Failed	Not started
S8 → S9	Active monitoring pipelines, drift thresholds, tested downgrade procedure	DGC + DSI		☐Passed ☐Failed	Not started

"Body" column: decision-makers set by AEXIA V3.1. Attach the evidence-file reference for each decision.

4 Weakest link and organisational context

Determining component	XAI method justification and quality thresholds (S5 → S6 gate artefacts)
Description	Policy thresholds exist (ECS ≥ 0.80 at ε = 0.1 σ) but the use-case risk quantification is not validated.
Remediation plan	Complete the risk analysis and resubmit the file to the DGC.
Owner / target deadline	Data Steward XAI / 2026-12-15
Organisation's published AEXIA™-O level	N2
O × S matrix cell	☐Normal ☒Tolerated ☐Authorised under condition ☐Prohibited ☐ Major alert

5 Explainability method and measures

Selected method *xai_method*	☒SHAP ☐LIME ☒DCME ☐ANCHORS ☐DiCE ☐Integrated Gradients ☐ Other:
Rationale	Interventional SHAP for local explanations; DCME to document the indirect influence of the protected group.

Measure	What to report	Value	Status
DCME	Causal graph G (reference, version, rationale)	GC-MER-01 v1.2	Published
DCME	Identifiability defensible? Otherwise publish ϕD only	☒Yes ☐No	Assumption documented
DCME	Graph sensitivity; efficiency and Σψ = 0 checked (tolerance 10^{-4})	28 % of the effect recovered without the group's edges	☒Checked
ECS	Radius ε (in σ), number of neighbours N, normalisation	ε = 0.1 σ; N = 15; reference $\bar{\Phi}$	

ECS	ECS and bootstrap confidence interval	0.90; CI: [0,88 ; 0,93]	
ECS	Fidelity (measure and value)	Variable deletion: 0.71	
ECS	Random / constant controls	0.00 / 1.00	☒Consistent
ECS	Policy threshold and status	ECS ≥ 0.80 at ε = 0.1 σ	☒Met ☐Not met
RAD	Criticality β (1–4), S_att, S_eff	β = 4 ; S_att = 8 ; S_eff = 5	Gap: 3 levels
RAD	Contribution to portfolio RAD-lite (β × gap over β × S_att)	12 / 32	12 of 36 (33 %) of the numerator
RAD	Gap age (months open)	24	Reported separately

ECS publication rules (V3.1): always ε, N, normalisation and fidelity; two controls; several radii; confidence interval. Cumulative RAD variant: optional, T½ to be declared.

Customer explanation (time)	24 h	**Regulator explanation (time)**	48 h
Alert (time)	5 min	**Other commitment**	

Time limits: organisation policy values, not prescribed by AEXIA.

6 Data

Data readiness level *data_readiness*	S4
Reference dataset (frozen version)	Meridian synthetic dataset v1, seed 11
Last quality review	2026-09-15
Data lineage and sources	Synthetic data generated by a published causal model
Known biases identified (TriAxis ref.)	Indirect effect of the protected group through income, debt ratio and credit history. TriAxis ref.: [IBI-1008]

7 Monitoring and downgrade

Trigger (v3.3)	Effect	Configured threshold or detection rule
Data or concept drift	S9 → S6	Proposal: PSI > 0.25 on a key variable (to be validated)
Explainability incident	S9 → S7	Any category-1 incident
Significant population change	S9 → S6	
Applicable regulatory change	S9 → S8	
Model change (retraining)	S9 → S7	

Drift indicators monitored / frequency *surveillance*	Not active (system below S9); to be configured before the S8 → S9 gate
Last control and result	☐Compliant ☐Non-compliant ☐Under monitoring

Active alerts	None
Post-market monitoring plan (art. 72)	☐ Defined ☒ In progress ☐ Not applicable

8 Compliance

Compliance file contents *compliance*	AI Act risk sheet, glossary, DCME/ECS report, impact assessment
Last audit / auditor	2026-07-02 / internal audit
Open gaps	Risk quantification; monitoring thresholds not configured
Compliance deadline	2027-12-02
Information to individuals (GDPR art. 13-15 and 22)	☒ Planned ☐ In place ☐ To do
Overall status	☐ Compliant ☒ Partially compliant ☐ Non-compliant

9 Card revision history

Version	Date	Author (role)	Change
0.1.0	2026-06-30	Data Steward XAI	Created after reaching S5
0.3.0	2026-10-24	Data Steward XAI	ECS and RAD measures added; S5 → S6 gate refused

10 Approval

Role	Name	Date	Signature
Business Data Owner			
XAI Data Steward			
DPO			
DGC (governance committee)			
CIO (S8 → S9 gate)			
CDO (optional)			

11 Free notes

Teaching example: a card does not replace the evidence file, it points to it.

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