

Intent-to-Income™ End-to-end Case

Cat Food Decision Support on Cattus - Technical Appendix

Technical & Evidence Report

Version: 0.1 - Evidence Pack

Case Classification: Illustrative End-to-end Case with Structured Design Evaluation

HaNonn

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Document Control

Field	Value
Case ID	CAT-ILL-001
Purpose	Evidence / audit / traceability layer
Main Report	Technical & Evidence Report v0.2
Architecture Authority	HaNonn_Canonical_Reference_v3.0_Final.md
Empirical User Evidence	None
Appendices	A-O

Appendix Purpose

Appendix A-O is evidence and traceability layer. It records what each source supports, how synthetic and real evidence are separated, how interpretations are promoted to Proposed Decision Needs, and how Design Findings/Revisions are traceable to evidence.

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Appendix A - Evidence Inventory

Evidence type is classified before interpretation. Interpretation is not promoted to Direct Source Evidence merely because the system uses it later. Application effectiveness requires application-specific empirical evidence. [BRF][CTX]

ID	Evidence	Type	Supports	Does Not Support
E-001	Intent-to-Income™ Core Flow	Canonical Evidence	Architecture structure	Application effectiveness
E-002	Decision Context role	Canonical Evidence	Cross-cutting context interpretation	Sixth Core Flow stage
E-003	Four Core Architecture Components	Canonical Evidence	Architecture mechanisms	UI/application stages
E-004	Cattus article environment	Direct Source Evidence	Case decision environment	User behavior
E-005	8 Cattus content sections	Direct Source Evidence	Journey structure	Importance to users
E-006	Milo profile	Synthetic Case Data	Case Context	Population inference
E-007	Entry query	Synthetic Case Data	Illustrative Signal	Actual Cattus search behavior
E-008	Dwell / scroll / TOC / revisit	Synthetic Case Data	Illustrative Journey	Actual analytics
E-009	Weight/energy interpretation	Interpretation	DN reasoning	Confirmed Need
E-010	Dry/wet/moisture interpretation	Interpretation	DN reasoning	Hydration diagnosis
E-011	Evidence-seeking interpretation	Interpretation	DN-03 hypothesis	Actual evidence preference
E-012	DN-01	Proposed Decision Need	Design of Support	Confirmed Need
E-013	DN-02	Proposed Decision Need	Design of Support	Wet-food recommendation
E-014	DN-03	Proposed Decision Need	Evidence-focused support	Confirmed behavior
E-015	Product A data	External Product Evidence	Candidate/Evaluation	Product superiority
E-016	Product B data	External Product Evidence	Candidate/Evaluation	Product superiority
E-017	Product C data	External Product Evidence	Candidate/Evaluation	Product superiority
E-018	Manufacturer benefit statements	Manufacturer Claim	Claims under evaluation	Independent effect in Milo
E-019	Candidate Eligibility logic	Application Output	Candidate-set specification	Retrieval accuracy
E-020	Composer Product Evaluation	Application Output	Criterion-level evaluation design	User effectiveness
E-021	Decision Support Blueprint	Application Output	Support specification	Effectiveness
E-022	Interface Specification	Application Output	UX implementation	Usability
E-023	Structured Design Evaluation	Design Finding source	Artifact/design findings	User outcomes
E-024	Understanding indicators	Proposed Metric	Future measurement	Validated Understanding measure

ID	Evidence	Type	Supports	Does Not Support
E-025	Confidence indicators	Proposed Metric	Future measurement	Validated Confidence measure
E-026	Readiness indicators	Proposed Metric	Future measurement	Validated Readiness measure
E-027	Real Cattus participant study	Evidence Gap	-	Empirical user conclusion
E-028	Need-inference performance	Evidence Gap	-	Accuracy claims
E-029	Business outcome data	Evidence Gap	-	Commercial impact
E-030	Architecture validation	Evidence Gap	-	Empirical architecture validation

Appendix B - Decision Context Record

Field	Value	Status
Case ID	CAT-ILL-001	Case record
Domain	Cat Food / Commerce Decision	Case scope
Environment	Cattus	Direct context
Market	Thailand	Case scope
Primary Decision	อาหารแบบใดหรือสูตรใดเหมาะกับแมวของฉัน?	Case framing
Name	Milo	Synthetic Case Data
Breed	Domestic Shorthair	Synthetic Case Data
Age	4 years	Synthetic Case Data
Sex / Neutered	Male / Yes	Synthetic Case Data
Environment	Indoor	Synthetic Case Data
Activity	Low-moderate	Synthetic Case Data
BCS	6/9	Synthetic Case Data
Diagnosed chronic disease	None specified	Synthetic Case Data
Current feeding	Mainly dry; accepts wet	Synthetic Case Data
Drinking observation	Owner perceives relatively low drinking; not quantified	Synthetic Case Data
Brand preference	Not established	Synthetic Case Data

Field	Value	Status
System authority	Select/order candidate products for consideration	Case rule
User authority	Final decision: compare/verify/revise/select/defer	Case rule

Decision Authority

System selects candidate products for consideration; user retains final decision authority. Decision Support ≠ Decision Authority. [CTX]

Appendix C - Synthetic Decision Journey

Stage	Content / Interaction	Synthetic behavior	Status
Entry	Search	Query: อาหารแมวทำหมัน อ้วนง่าย อาหารเปียกหรือ เม็ด	Synthetic Case Data
1	Balanced Nutrition	~42 sec	Synthetic Case Data
2	Healthcare	~67 sec + revisit	Synthetic Case Data
3	Cat Profile	TOC click + ~88 sec	Synthetic Case Data
4	Dry vs Wet	~76 sec	Synthetic Case Data
5	Brand	~24 sec	Synthetic Case Data
6	Label Reading	TOC click + ~94 sec	Synthetic Case Data
7	Transition	~29 sec	Synthetic Case Data
8	FAQ	~41 sec	Synthetic Case Data
Overall	Scroll depth	~96%	Synthetic Case Data
Product CTA	Not present	Not tested	Evidence Gap

Cluster	Signal sources	Potential interpretation	Alternative / boundary
C-01 Nutrition/Energy/Weight	Neutered + indoor + activity + BCS + query + Cat Profile	Weight/energy consideration may be relevant	General information gathering possible
C-02 Format/Moisture	Low apparent drinking + dry/wet query + section engagement	Format/moisture trade-off unresolved	Convenience/cost/routine may explain interest
C-03 Evidence Seeking	Label TOC + longest dwell +	User may need verifiable reasons	Terminology may simply be

Cluster	Signal sources	Potential interpretation	Alternative / boundary
	Healthcare revisit		unfamiliar
C-04 Brand Salience	Lower brand dwell + no preference	Brand not established as primary criterion	Low dwell ≠ no brand interest

Appendix D - Full Decision Signal Matrix

ID	Observation	Interpretation	Alternative	Proposed Need	Proposed Support	Status
DSM-01	Query: neutered / weight / dry-wet	Weight & format may matter	General search only	DN-01 / DN-02	Contextual criteria + format comparison	Proposed
DSM-02	Adult + neutered + indoor + activity + BCS	Energy/weight relevance	Synthetic profile only	DN-01	Nutrition / energy criteria	Proposed
DSM-03	Cat Profile interaction	Individual fit may matter	Section complexity	DN-01	Profile-to-criteria mapping	Proposed
DSM-04	Healthcare revisit	Health/evidence relevance	Confusion	DN-01 / DN-03	Health caution + evidence	Proposed
DSM-05	Owner perceives low drinking	Moisture may matter	No evidence of inadequate hydration	DN-02	Moisture / format comparison	Proposed
DSM-06	Dry/wet engagement	Format unresolved	Convenience/cost may explain	DN-02	Dry/wet/mixed trade-off	Proposed
DSM-07	Label engagement	Evidence may matter	Terminology unfamiliar	DN-03	Evidence checklist	Proposed
DSM-08	Healthcare + label pattern	Verifiable reasons may be sought	Page sequence may drive pattern	DN-03	Criteria → Evidence → Fit	Proposed
DSM-09	Low brand engagement	Brand may be secondary	Existing brand knowledge	-	Do not default to brand-first	Not confirmed
DSM-10	No recorded brand preference	No evidence to prioritize brand	Preference may be uncaptured	-	Need-first logic	Proposed
DSM-11	High scroll + FAQ	Clarification may remain	High scroll ≠ understanding	DN-03	Summary + unresolved questions	Proposed
DSM-12	No Product CTA interaction	Purchase readiness unknown	-	-	Do not infer Readiness	Not Tested

Appendix E - Product Evidence Register

Case ID	Product / Source	Declared Information	Manufacturer Claims / Boundary	Evidence Gap
A	Royal Canin Sterilised 37 [RC-A]	Adult sterilised 1+; dry; protein ≥35%; fat ≥10%; fiber ≤7.2%; moisture ≤7%	Benefit claims are manufacturer claims; not independent effects in Milo	Comparable kcal/100g not available in current reviewed source set
B	Purina PRO PLAN Weight Loss /	Adult/sterilised/weight-control	Benefit/effect statements remain	Independent effectiveness

Case ID	Product / Source	Declared Information	Manufacturer Claims / Boundary	Evidence Gap
	Sterilised [PUR-B]	context; dry; energy and feeding information previously reviewed	manufacturer claims	evidence not included in current Case
C	Purina ONE Adult Indoor Chicken in Gravy [PUR-C]	Adult indoor; wet; protein 12.5% fat 3% fiber 2.5% moisture 82%; ME 80 kcal/100g; mixed feeding	Health/benefit statements remain manufacturer claims	Not sterilised-specific; no independent outcome evidence

EG-P01

Cross-format Nutrition Normalization Not Implemented. Dry and wet as-fed nutrient percentages should not be ranked directly without an appropriate comparison basis.

Appendix F - Product Evaluation Criteria Register

ID	Criterion	Derived From	Evidence Required
PC-01	Adult life-stage relevance	DN-01	Of fial target information
PC-02	Neutered / weight-energy relevance	DN-01	Official positioning + product information
PC-03	Energy / feeding information availability	DN-01 + DN-03	ME / feeding guidance
PC-04	Food-format / moisture relevance	DN-02	Format + moisture
PC-05	Mixed-feeding / practicality information	DN-02	Feeding guidance
PC-06	Product-claim source traceability	DN-03	Source provenance
PC-07	Independent support for effectiveness claims in this Case	DN-03	External empirical evidence

IR	Decision Interface Requirement
IR-01	Why this product appears
IR-02	Context matched
IR-03	Need addressed
IR-04	Evidence status
IR-05	Claim / Evidence / Interpretation / Limitation separation
IR-06	Evidence Gap visibility
IR-07	Context correction

IR	Decision Interface Requirement
IR-08	Compare
IR-09	Verify / Revise / Select / Defer
IR-10	Final Decision Authority remains with user

Appendix G - Full Product Evaluation Matrix

Criterion	Product A	Product B	Product C
PC-01 Adult life-stage	Meets	Meets	Meets
PC-02 Neutered / weight-energy relevance	Meets	Meets	Context-dependent
PC-03 Energy / feeding info	Insufficient	Meets	Meets
PC-04 Food-format / moisture	Context-dependent	Context-dependent	Meets
PC-05 Mixed feeding	Insufficient	Meets	Meets
PC-06 Claim source traceability	Meets	Meets	Meets
PC-07 Independent effectiveness support	Insufficient	Insufficient	Insufficient

Evaluation Rule

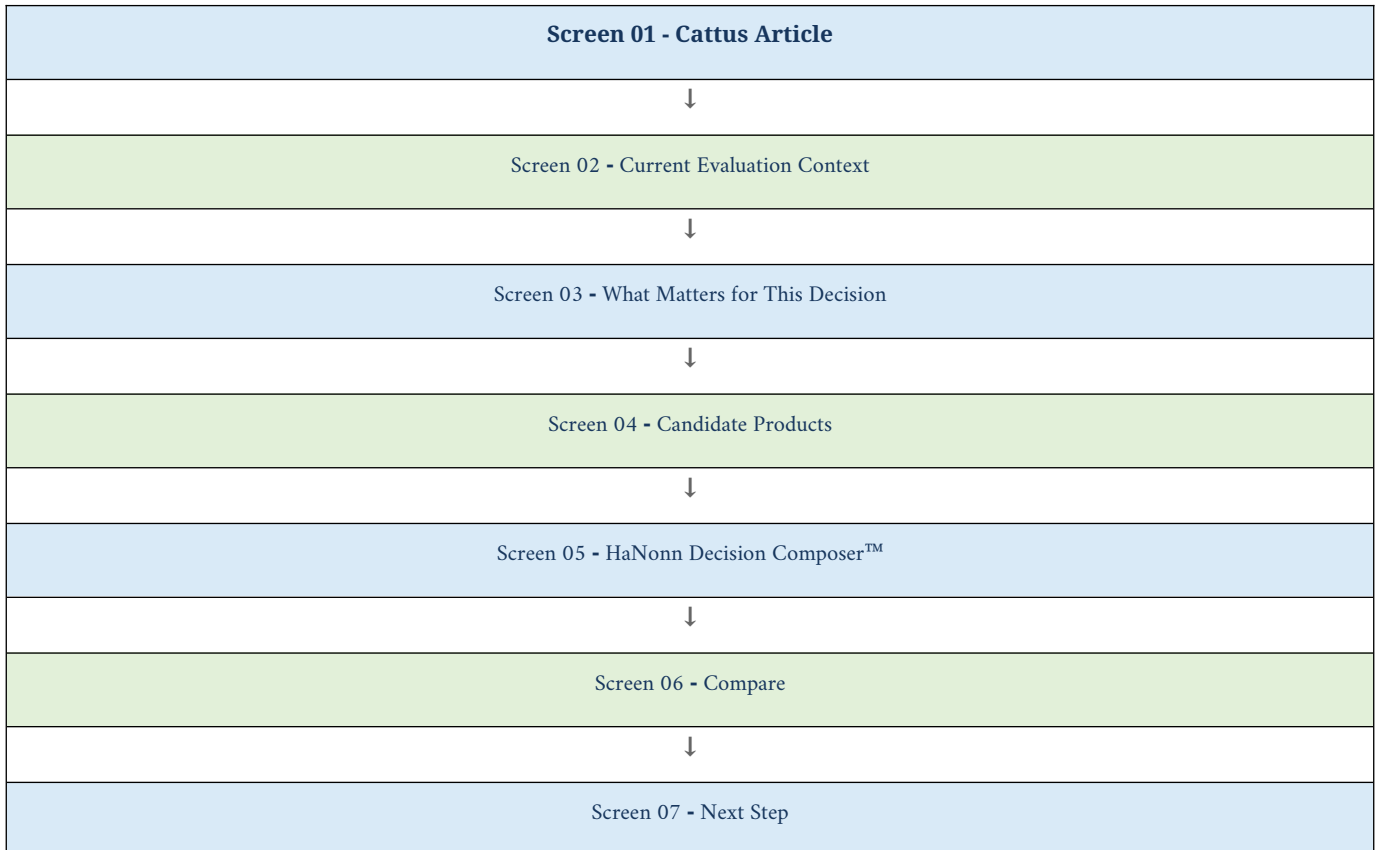
Do not count “Meets” and convert to a product score. Criteria address different Needs; weighting is not validated; Insufficient Evidence is not a negative quality score.

Appendix H - Decision Support Blueprint

Blueprint Element	Implementation
Decision Context	Milo Current Evaluation Context
Primary Decision	อาหารแบบใดหรือสูตรใดเหมาะกับแมวของฉัน?
Proposed Needs	DN-01 / DN-02 / DN-03
Criteria	PC-01-PC-07
Candidate Alternatives	Product A/B/C
Evidence	Declared product information + source provenance
Claims	Manufacturer Claims separated from evidence

Blueprint Element	Implementation
Evidence Gaps	Energy gap / independent effectiveness gap / method gap
Trade-offs	Neutered relevance vs wet/moisture relevance
Human Control	Compare / Verify / Revise / Select / Defer

Appendix I - Decision Interface / Prototype Specification



Screen	Purpose	Output
0 1	Information + Signal environment	Decision Signals
0 2	Confirm/edit working context	Current Evaluation Context
0 3	User-facing Needs/Criteria	Decision Support framing
0 4	Candidate alternatives + explanation	Candidate Set
0 5	Deep product inspection	Product Evaluation + Blueprint
0 6	Trade-off comparison	Criterion-level comparison
0 7	User-controlled continuation	Compare / Verify / Revise / Select / Defer

Required states: Sufficient Evidence; Insufficient Evidence; Context-dependent; Context Changed; Conflicting Evidence; Higher-risk Context.

Appendix J - Evaluation Protocol

Layer	Objective	Status
Design Evaluation	Conformance / traceability / semantics	Executed
Pilot User Evaluation	Interaction / Understanding / Confidence / Readiness / usability	Not executed

ID	Future Pilot Evaluation Question
PEQ-01	ผู้ใช้เข้าใจ Context ที่ระบบใช้หรือไม่
PEQ-02	ผู้ใช้เข้าใจ Why this product appears หรือไม่
PEQ-03	ผู้ใช้แยก Claim จาก Evidence ได้หรือไม่
PEQ-04	ผู้ใช้เห็น Evidence Gap หรือไม่
PEQ-05	ผู้ใช้อธิบาย Trade-offs ได้หรือไม่
PEQ-06	Confidence calibrated กับ actual understanding หรือไม่
PEQ-07	ผู้ใช้เลือก Appropriate Next Step ได้หรือไม่
PEQ-08	Composer เพิ่ม cognitive load มากเกินไปหรือไม่

Proposed participant scope: เจ้าของแมวกที่มีส่วนในการเลือกอาหารแมว. Sample size: To be determined by evaluation objective and study design. No sample size is fabricated in this Case.

Appendix K - Measurement Logic Matrix

Layer	ID / Indicator	Operational meaning	Status / Boundary
Process	PS-01 Composer Open	Product inspection occurred	Proposed; ≠Understanding
Process	PS-02 Evidence Open	Evidence interaction occurred	Proposed; ≠Evidence comprehension
Process	PS-03 Compare Use	Alternatives compared	Proposed; ≠good comparison
Understanding	U-01 Context Recognition	Recognize relevant context	Proposed / Not validated
Understanding	U-03 Claim/Evidence Separation	Separate manufacturer claim from evidence	Proposed / Not validated

Layer	ID / Indicator	Operational meaning	Status / Boundary
Understanding	U-04 Evidence Gap Awareness	Identify what cannot be concluded	Proposed / Not validated
Confidence	C-03 Confidence Calibration	Confidence relative to task performance	Proposed
Readiness	R-01 Appropriate Next Step	Select action consistent with evidence/context	Proposed
Outcome	MO-01 Qualified Next Step	Downstream action	Outcome ≠DQ
Outcome	MO-03 Appropriate Defer	Defers when evidence insufficient	Valid possible outcome
Governance	SG-01 Claim Misinterpretation	Claim treated as proven outcome?	Proposed
Governance	SG-04 AI Over-reliance	User thinks AI decides for them?	Proposed
Governance	SG-08 Source Traceability	Can claim/evidence be traced?	Proposed

Measurement Rules

Longer dwell ≠ Better Understanding; More clicks ≠ Better Decision Quality; Higher Confidence ≠ Better Decision; Purchase ≠ Readiness; Conversion ≠ Decision Quality; Prototype Evaluation ≠ Architecture Validation. [CTX]

Appendix L - Structured Design Evaluation Record

ID	Question Area	Observed	Status	Remaining / Revision
DE-01	Traceability	Signals trace to Needs/Support	Pass	Need-inference accuracy not tested
DE-02	Semantic separation	Signal/Interpretation/Need/ Evidence separated	Pass	User comprehension not tested
DE-03	Context sensitivity	Criteria/candidates designed from Context	Pass conceptually	Context-change implementation test needed
DE-04	Evidence sufficiency handling	Insufficient Evidence supported	Pass	User interpretation unknown
DE-05	Trade-off visibility	A/B/C answer different Needs	Pass	Cognitive load unknown
DE-06	Human agency	Compare/verify/revise/select/defer available	Pass	Over-reliance unknown
DE-07	Cattus/Composer role	Initial overlap identified	Resolved	DR-01
DE-08	Canonical Core Flow	No application step added to Core Flow	Pass	-
DE-09	Candidate explanation	Initial design not explicit enough	Partial Revised	DR-02
DE-10	User comprehension	No participants	Not Tested	Pilot
DE-11	Decision Quality	No empirical data	Not Tested	Pilot/comparator

ID	Question Area	Observed	Status	Remaining / Revision
	improvement			
DE-12	Business impact	No outcome data	Not Tested	Future downstream evaluation

Appendix M - Findings & Revision Register

Finding	Summary	Status
F-01	Core Flow can be operationalized traceably in this Case	Supported at Design Level
F-02	Decision Context can be carried forward across Journey	Supported at Design Level
F-03	Single Signal should not become Confirmed Need	Supported as design rule
F-04	Signal clusters can form Proposed Need hypotheses	Supported as design process
F-05	Candidate logic can be need-first	Supported at Design Level
F-06	Candidate Product $\neq$ Best Product	Supported
F-07	Cattus and Composer can have distinct roles	Supported after revision
F-08	Composer placement after candidates works in this Case	Supported for this Case
F-09	Manufacturer Claim $\neq$ independent proof	Supported
F-10	Insufficient Evidence is a legitimate output	Supported
F-11	Dry/wet as-fed values should not be directly ranked	Method Gap identified
F-12	Trade-off matrix can replace forced overall score in this design	Supported at Design Level
F-13	User Final Decision Authority can be preserved	Supported at Design Level
F-14	Click/dwell cannot be used as DQ directly	Supported boundary
F-15	U/C/R candidate operationalizations can be proposed	Proposed / Not validated
F-18	Current Case does not validate Architecture	Not Established
F-20	Case is prepared for a future Pilot	Prepared / Not executed

Revision	Accepted Specification
DR-01	Candidate Eligibility $\neq$ Composer Product Evaluation
DR-02	Candidate explanation = Context + Need + Evidence status
DR-03	User retains Final Decision Authority

Revision	Accepted Specification
DR-04	Criterion-specific comparison; no forced overall score
DR-05	Composer inherits Decision State
DR-06	Claim / Evidence / Interpretation / Limitation separation
DR-07	Insufficient Evidence $\neq$ Product Failure
DR-08	Journey supports re-entry
DR-09	Next Step $\neq$ Buy
DR-10	Higher-risk Context requires re-evaluation/escalation
DR-11	Product Criteria $\neq$ Interface Requirements
DR-12	Architecture Authority $\neq$ Evidence Provenance
DR-13	Use Current Evaluation Context, not Confirmed Context
DR-14	Normalize Evidence Vocabulary
DR-15	Normalize official Product Names / stable Case IDs
DR-16	Separate status vocabularies by evaluation type

Appendix N - Master Traceability Table

Trace	Source/ Observation	Interpretation	Need	Support/ Application	Evidence	Finding Status	Revision/Gap
MT-01	Cattus decision framing	Suitability > brand-only	-	Decision framing	Real content context	Supported as context	-
MT-02	Milo context	Energy/weight may matter	DN-01	Nutrition criteria	Synthetic Context	Design-supported	-
MT-03	Search query	Multiple concerns possible	DN-01/02	Contextual support	Synthetic Signal	Proposed	Multi-signal rule
MT-06	Low drinking + dry/wet interest	Format/moisture trade-off	DN-02	Structured comparison	Synthetic	Proposed	No hydration diagnosis
MT-07	Label engagement	Evidence seeking possible	DN-03	Claim/Evidence layer	Synthetic	Proposed	DR-06
MT-10	Real Product A/B/C evidence	Different Needs addressed	DN-01/02/03	Candidate Eligibility	External Product Evidence	Supported	DR-02
MT-11	Evidence coverage differs	Availability $\neq$ quality	DN-03	Evidence Gap	Product evidence	Supported	DR-07
MT-12	Dry/wet basis differs	Direct nutrient ranking unsafe	DN-02/03	Comparison caution	Method gap	Open Gap	EG-P01
MT-13	Cattus/Composer overlap	Role overlap	All	Eligibility $\rightarrow$ Composer	Design Evaluation	Resolved	DR-01

Trace	Source/ Observation	Interpretation	Need	Support/ Application	Evidence	Finding Status	Revision/Gap
MT-14	User opens Composer	Context should persist	DN-03	State inheritance	Prototype spec	Design-supported	DR-05
MT-17	Alternatives address dimensions	Winner ranking loses context	DN-01/02	Trade-off comparison	Design Evaluation	Supported	DR-04
MT-18	Multiple user actions	User retains authority	-	Next Step	Design Evaluation	Pass	DR-03/09
MT-19	Context may change	Candidates should recalculate	-	Re-entry	Not implemented	Not Tested	Implementation gap
MT-20	Higher-risk context possible	Generic support may be unsafe	-	Escalation	Not implemented	Not Tested	DR-10
MT-22	Understanding tasks	Candidate DQ evidence	-	Pilot measurement	Proposed	Not validated	Pilot
MT-26	No real participants	No user-effectiveness inference	-	-	Evidence Gap	Not established	Pilot required
MT-27	No executed comparator	No comparative/causal inference	-	-	Evidence Gap	Not established	Comparative Pilot
MT-28	No business outcome data	No commercial impact inference	-	-	Evidence Gap	Not established	Future outcomes

Gap ID	Evidence Gap	Needed Evidence
G-01	Need-inference accuracy	Real behavior + user-confirmed Need
G-02	Context-sensitive candidate recalculation	Implemented retrieval tests
G-03	Real-user Understanding	Participant task evidence
G-04	Confidence calibration	Self-report + task performance
G-05	Readiness operationalization	Next-step behavior + rationale
G-06	Composer usability / cognitive load	Real-user usability data
G-07	Comparative effectiveness	Executed comparator
G-08	Business impact	Downstream outcome data
G-09	Cross-format normalization	Defined and verified comparison method
G-10	Higher-risk escalation	Safety implementation + test

Appendix O - Source & Evidence Register

O.1 Architecture Authority Register

Code	Source	Role
CAN	HaNonn_Canonical_Reference_v3.0_Final.md	Highest authority for architecture definitions, entity roles, Core Flow and boundaries
CTX	HaNonn_Reusable_Context_Pack_v2.md	Reusable operational context; cannot override Canonical
BRF	HaNonn_End-to-End_Case_Evaluation_New_Chat_Brief.md	Project workflow, evidence audit, evaluation and deliverables

O.2 Evidence / Source Provenance Register

Code	Source	Evidence Role / Boundary
CATTUS	https://hanonn.com/cat-food-guide-balanced-nutrition-healthcare/	Case content environment; does not establish user behavior
RC-A	https://www.royalcanin.com/th/cats/products/retail-products/sterilised-37-2537	Official manufacturer product information and claims; not independent outcome evidence
PUR-B	https://www.purina.co.th/food/cat/pro-plan-weight-loss-sterilised	Official manufacturer product information/claims previously reviewed; not independent outcome evidence
PUR-C	https://www.purina.co.th/food/cat/purinaone-adult-indoor-with-gravychicken	Official manufacturer product information and claims; not independent outcome evidence
SYN-01	Milo Profile	Synthetic Case Data; no population inference
SYN-02	Synthetic Behavioral Journey	Synthetic Case Data; not Cattus analytics
ART-DSM	Decision Signal Matrix	Derived Case Artifact; not Confirmed Need
ART-EVAL	Structured Design Evaluation	Design-level evidence; not user-effectiveness evidence

Source Governance

Architecture Authority and Evidence Provenance are separate. Canonical governs architecture definitions; external evidence governs only the product/content facts or claims it directly supports.