# Artificial Intelligence Systems Evaluations Optional Supplemental Exhibits for State Regulators

### Background:

The rapid expansion of big data and adoption of Artificial Intelligence and Machine Learning (AI systems) is significantly transforming insurance practices. These technologies can offer substantial benefits to both insurance companies and consumers by facilitating the development of innovative products, improving customer interface and enhancing service, simplifying and automating processes, and promoting efficiency and accuracy. However, without robust governance and effective controls, the use of AI systems may lead to adverse consumer outcomes or compromise the financial soundness of an insurance company. Insurers are responsible for managing the risks associated with the development and implementation of AI systems and must demonstrate to regulators that adequate oversight mechanisms are in place and are functioning effectively.

#### Intent:

The NAIC's Innovation, Cybersecurity and Technology (H) Committee charged the Big Data and Al Working Group (BDAIWG) to create tool(s) that would enable regulators to identify and assess Al systems' related risks on an on-going basis with a scope that considers both financial and consumer risks evolving specifically from company's use of Al systems to the extent such risks can be parsed from the comprehensive structure.

This document and related tools are designed to supplement existing market conduct, product review, form filing, financial analysis, and financial examination review procedures. As this tool supplements existing NAIC resources, regulators should continue to consider existing NAIC resources as authoritative but may consider drawing from this tool to assist in understanding and assessing a company's use of AI systems.

These optional exhibits allow regulators to determine the extent of AI systems usage for a company and whether additional analysis is needed focusing on financial and consumer risk.

### Sections of the Tool include:

- Exhibit A: Quantify Regulated Entity's Use of Al Systems
- Exhibit B: Al Systems Governance Risk Assessment Framework (Two Options: Narrative or Checklist)
- Exhibit C: Al Systems High-Risk Model Details
- Exhibit D: Al Systems Model Data Details

#### Instructions:

Information obtained from the Exhibit submission may supplement guidance and tools used during an existing market conduct, product review, form filing, financial analysis, and financial examination review, to enhance the regulator's understanding of the AI systems utilization and assessment of risk across an insurance company in performing the analysis and examination reviews. Effective assessment requires regulators to maintain a fluent understanding and application of the applicable laws including those pertaining to unfair trade practices, confidentiality, and financial reporting.

Regulators using the tool may wish to first use Exhibit A and based on the information provided, determine if further inquiry is necessary. It may be possible that company responses indicate that while the company responding is using AI, its use of AI is so limited or low in inherent risk as to not require further inquiry as contemplated by subsequent exhibits.

If information requested through the tool has already been provided to this department or any other state department of insurance, the company's response should so state and reference when and how the information was provided.

The tool responses will be considered by regulators when identifying the inherent risks of the insurer. They should also affect the planned examination or inquiry approach, as well as the nature, timing and extent of any further procedures performed.

Materiality and Risk Assessment

Exhibit C of this tool relies on company assessments of risk and materiality. As part of evaluating company responses, regulators may request information on how a responding company assesses both concepts to assist in the regulatory review.

Confidentiality

Regulators using any of the tools should be prepared to cite examination or other authority, as appropriate when requesting information from insurers.

Commented [A1]: Recommendation: There is a lack of clarity around when a determination for further information is warranted., A regulator handbook structure/instruction would be beneficial to outline how information obtained through this tool should be used/assessed. This guidance to regulators could eliminate variation across states in terms of decisions/assessment of risk are made and any further actions taken.

### Which Exhibit to Use?

Risk Identification or Assessment	Α	В	С	D
Identify Reputational Risk and Consumer Complaints	Х	X (Checklist)		
Assess Company Financial Risk – Number of models implemented recently	Х	X (Checklist)		
Identify Adverse Consumer Outcomes – AI Systems and data use by operational area	х	x	x	х
Evaluate Actions Taken Against Company's Use of High- Risk AI Systems (as defined by the company)			x	
<b>Evaluate Robustness of AI Controls</b>		х	Х	
Determine the types of data used by operational area				X

Commented [A2]: Recommendation: This no longer aligns with Exhibits A and B and should be changed.

## **Exhibit A: Quantify Regulated Entity's Use of AI Systems**

<u>Purpose</u>: To obtain information pertaining to the number of AI models that are new, updated, etc. that will help facilitate risk assessment. Based on the responses from the company, regulators may ask for additional information related to governance (Exhibits B), high-risk models (Exhibit C), and data types (Exhibit D) where there is risk for adverse consumer outcomes or material adverse financial impact.

Company Instructions: Provide the most current counts and use cases of the following as requested. Note that "Al System" is defined as a machine-based system that can, for a given set of objectives, generate outputs such as predictions, recommendations, content (such as text, images, videos, or sounds), or other output influencing decisions made in real or virtual environments. Al systems are designed to operate with varying levels of autonomy (supportive, augmented, automated). "Adverse Consumer Outcome" and "Use Case" are as defined below. Include all companies and lines of business. If the governance differs by entity, line of business, or state, work with your domestic regulator to determine if multiple submissions are needed. See definitions below.

Regulator Instructions: Regulators should customize this tool to limit information requested to more targeted inquiries for use in a limited scope exam.

Company Legal Name or Group Name:	
NAIC Code or Group Code:	
Company Contact Name:	Email:
Describe the Line of Business for Which This Response Applies :	
Date Form Completed ("as of") Date:	

Use of AI System in Operations or Program Area	Number of AI System Model(s)	Number of Al System Model(s) with Material	Number of Al System Model(s) with Material	Number of Al System Model(s) Implemented		Al System Use Case(s) with
(Al systems may be listed under more than one program area if they are used across functions; and	Currently in Use	Consumer Impact	Financial Impact	in Past 12 Months		consumer impact of material

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AI Systems Evaluation Regulator Tool

**Commented [A3]: Consideration:** Whether to clarify this term in a way that ensures more consistency among the states.

#### Commented [A6]: Support this change.

#### Rationale:

Future implementation plans are inherently fluid and subject to change based on business priorities, market conditions, vendor readiness, or evolving regulation.

Collecting speculative forward-looking information is unlikely to provide regulators with reliable or actionable insight into actual risk exposure and may create reporting inconsistencies across states.

#### Commented [A5]: Recommendation:

Revise to "Number of Al System Model(s) with Material Consumer Impact" to ensure alignment with a risk-based reporting framework and consistency with the corresponding financial impact column.

#### Rationale:

As drafted, the reference to "consumer impact" is overly broad and could capture virtually any AI-enabled functionality, including routine or low-risk automation that has no meaningful effect on consumers. This level of granularity would significantly expand the reporting universe, potentially to the point of including systems analogous to basic computer-assisted processes, resulting in unwieldy inventories that obscure areas of genuine regulatory concern. Adding the term "material" narrows the focus to consumer impacts that are significant enough to warrant regulatory attention, better aligns with NAIC's risk-based intentions and maintains alignment with the existing category for "Material Financial Impact."

Insurer Core Operations  Marketing  Marketing  Premium Quotes & Discounts  Underwriting  Ratemaking/Rate Classification/ Schedule Rating/ Premium Audits	<u>financial</u>	totals across program areas
Insurer Core Operations  Marketing  Marketing  Premium Quotes & Discounts Underwriting Ratemaking/Rate Classification/ Schedule Rating/ Premium Audits	impact.	should not be assumed to
Marketing  E.g., UC Identify potentic consum interest product  Premium Quotes & Discounts  Underwriting  Ratemaking/Rate Classification/ Schedule Rating/ Premium Audits		represent unique Ai systems)
Marketing  E.g., UC Identify potentic consum interest product  Premium Quotes & Discounts  Underwriting  Ratemaking/Rate Classification/ Schedule Rating/ Premium Audits		Insurer Core Operations
Discounts Underwriting Ratemaking/Rate Classification/ Schedule Rating/ Premium Audits	E.g., UC1: Identify potential consumers interested in product.	
Discounts Underwriting Ratemaking/Rate Classification/ Schedule Rating/ Premium Audits		
Underwriting Ratemaking/Rate Classification/ Schedule Rating/ Premium Audits		
Ratemaking/Rate Classification/ Schedule Rating/ Premium Audits		
Classification/ Schedule Rating/ Premium Audits		
Rating/ Premium Audits		
Claims/Adjudication*		Claims/Adjudication*
Customer Service_Facing AI  Tools		
Utilization		Utilization
Management/Utilization		Management/Utilization
Review/Prior Authorization		Review/Prior Authorization
Fraud/Waste & Abuse		Fraud/Waste & Abuse
Other		
Investment/Capital		Investment/Capital
Management		
Legal/Comptiance		
Producer Services		Producer Services
Reserves/Valuations		Reserves/Valuations

**Commented [A7]: Recommendation:** Narrow the "AI System Use Case(s)" reporting requirement to include only those use cases with either consumer impact or material financial impact.

#### Rationale:

The current definition of "use case" is broad and encompass virtually all forms of Al-enabled automation within an insurer's operations, from routine administrative functions to core decision-making processes. Requiring disclosure of every possible use case risks diluting focus, producing unmanageable inventories and diverting both company and regulator attention away from the use cases that matter most. By narrowing reporting to consumer-impacting or financially material use cases, Exhibit A will generate more actionable, decision-useful information that aligns with the stated purpose of facilitating risk assessment.

**Commented [A4]: Recommendation:** Clarify how to count AI systems across program areas and add disclosure language acknowledging overlap.

#### Rationale:

The current table structure requires companies to report data points by "Use of Al System in Operations or Program Area." In practice, not all Al systems align neat

#### Commented [A8]: Recommendation:

Revise the "Customer Service" to "Customer-Facing Al Tools" to more accurately reflect the types of Al systems that warrant regulatory reporting under a risk-based framework.

#### Rationale:

Commented [A9]: Support this change.

**Rationale:** An "other" category helps capture AIS models that can not be clearly classified in the table.

Commented [A10]: Recommendation: Remove or refine definitions to better clarify scope.

Rationale: We believe "legal compliance", "producer services" and "reserves/valuations" to be overly broad and not specifically tied to potential adverse consumer outcomes or material adverse financial impact.

Catastrophe Triage						
Reinsurance						
Other (remove or change to "additional" per the use of "Other" above)						
*Includes Salvage/Subrogation	n					
1.						
2.						
3.						



### Exhibit B: (Narrative) Al Systems Governance Risk Assessment Framework

<u>Purpose:</u> To obtain the Company Al Governance Framework, including the risk identification, mitigation, and management framework and internal controls for Al systems; and the process for acquiring, using, or relying on third-party Al systems and data. Market and financial regulators should coordinate to gain access to the relevant section of the policies governing the use of Al Systems.

<u>Company Instructions:</u> Provide responses to the questions regarding governance of AI systems within your company's operations. Include all companies and lines of business. If the governance differs by entity, line of business, or state, work with your domestic regulator to determine if multiple submissions are needed. See <u>definitions</u> below.

Regulator Instructions: Regulators should customize this tool to limit information requested to more targeted inquiries for use in a limited scope exam.

Group or Company Legal Name	:			
NAIC Group or Company Code:				
oreap or company coue.				
One and a second of the second		Fusili		
Company Contact Name:		Email:		
<ol> <li>Date Form Completed (</li> </ol>	'as of") Date:			
Provide the Governance	Framework pertaining to the use o	of AI systems. Click or tap here	e to enter text.	

- a. What role maintains the framework? Click or tap here to enter text.
- b. Discuss the governance structure, Board reporting and frequency. Click or tap here to enter text.
- c. Discuss the process by which the framework is integrated throughout the organization, assessed and remediated. Click or tap here to enter text.
- d. Discuss the process by which the effectiveness of the framework and individual models are assessed and modified. Click or tap here to enter text.
- e. Discuss the divisional, operational and cross functional responsibility for governance, consistency and alignment. Click or tap here to enter text.
- f. Discuss the integration of the AI systems in the Own Risk and Solvency Assessment (ORSA) and Enterprise Risk Management (ERM) assessments. Click or tap here to enter text.
- g. Suggested additional question: How does the insurance company assess autonomy, reversibility, and reporting impact risk of Al systems?

#### Commented [A12]: Recommendation:

Remove the suggested question, "How does the insurance company assess autonomy, reversibility, and reporting impact risk of Al systems?" from the Governance Framework section of Exhibit B.

#### Rationale:

This question introduces concepts that are not reflected elsewhere in the AIS Tool and would expand Exhibit B beyond its intended purpose of capturing established governance practices. "autonomy," "reversibility" and "reporting impact risk" are not standard elements, making the question difficult to answer consistently or meaningfully across insurers. Removing the question keeps Exhibit B focused on well-defined governance expectations and avoids capturing data that would create more confusion than actionable information.

- 2. Discuss the uses of AI system that directly:
  - a. Generates a financial transaction directly or indirectly. Click or tap here to enter text.
  - b. Generates consumer impact directly or indirectly. Click or tap here to enter text.
  - c.—Generates or impacts information reported in financial statements either directly or indirectly.
  - d.—Generates or impacts risk and or control assessment. Click or tap here to enter text.
  - e.c. Discuss the development, testing, and implementation of AI systems that the Company has implemented. If appropriate, include details regarding where any systems differ from established IT systems and data handling protocols. Discuss the basis for deviation from established practices. Click or tap here to enter text.
- 3. Provide the policy and discuss the use and oversight of Al system vendors, model design and testing (responses may be satisfied by either the vendor or the insurer):
  - a. Discuss the transparency and testing procedures performed on internally-developed AI systems. Click or tap here to enter text.
  - b. Discuss the transparency and testing procedures performed on third-party vendor-supplied AI systems. Click or tap here to enter text.
  - c. Discuss the testing and verification that has occurred including frequency, scope and methodology. Click or tap here to enter text.
- 4. Provide the policy and discuss the use and oversight of Al systems by professional service providers including actuarial, claim, MGA, audit, and/or other professional services. Click or tap here to enter text.
  - a. Discuss the testing and verification that has occurred, frequency, scope, and methodology. Click or tap here to enter text.

Click or tap here to enter text. Click or tap here to enter text. Click or tap here to enter text.

- 5. Discuss additional RAF design and evaluation pertaining to AI systems. Click or tap here to enter text.
  - a. Discuss the unit(s) responsible for the RAF, assessment approach and frequency, and involvement with the program area to the extent it differs from that discussed above. Click or tap here to enter text.

**Commented [A13]: Recommendation:** Revise Question 2 to focus only on AI systems that have either a direct consumer impact or material financial impact.

#### Rationale:

As drafted, Question 2 appears to require companies to catalog every single instance where Al generates a financial transaction, consumer impact, financial statement entry, or control assessment. If taken literally, this would be highly burdensome to compile and challenging to maintain accuracy, given the growing number of Al applications across insurance operations. Limiting the request to use cases with consumer impact or material financial impact would align with the risk-based focus of Exhibit A and avoid diluting regulator attention with immaterial details.

**Commented [A14]: Recommendation:** Clarify that testing and transparency requirements for third-party Al systems can be satisfied by either the vendor or the insurer.

#### Rationale:

Many AI systems are supplied by third-party vendors who retain proprietary rights over their models. Insurers may not have access to the technical detail necessary to independently test every element. It should be acceptable for companies to rely on vendor testing and assurance reports, rather than duplicating work that cannot reasonably be performed by the insurer

Exhi	bit B: (Checklist) Al Systems Governance and Risk Ass	sessment Framework						
urpo	ose: To obtain the Company Al Systems Governance Framework, including the risk identification, mitigation and management framework and							
nterr	nal controls for AI systems; and the process for acquiring, using, or relying on third party AI systems and data" potential risk of adverse							
consi	sumer outcomes, development of models, human-in-the-loop supervision, and information about efforts to maintain compliance and the							
ntegr	grity of financial reporting and control integrity. Market and financial regulators should coordinate to gain access to the relevant section of the							
olici	licies governing the use of Al systems.							
Comp	pany Instructions: Provide responses to the questions regarding governal	nce of AI systems within your company's operations. Include all						
omp	anies and lines of business. If the governance differs by entity, line of bu	siness, or state, work with your domestic regulator to determine if						
nulti	ole submissions are needed. See <u>definitions</u> below.							
Regul	ator Instructions: Regulators should customize this tool to limit information	tion requested to more targeted inquiries for use in a limited scope						
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∍rou	o or Company Legal Name:							
NAIC	Group or Company Code:							
omi	pany Contact Name:	Email:						
וווטכ	bany contact Name.							
Date	Form Completed ("as of") Date:							
Ref	Al Systems Use Questions for Company	Company Response						
1	Has the company adopted a written AIS Program? If yes, when was it							
	adopted and what is the frequency of review for updating?							
2	Was the Board of Directors or management involved in the adoption							
	of an AIS Program?							

Systems Governance Framework?

What is the role of the Board of Directors or management in the Al

Reference the processes and procedures of the Company Al Governance Framework that addresses the following:

	How the Insurance Company	Page #	If not specified in governance, provide details below:
	3a. Assesses, mitigates, and evaluates residual AI system		
	risks of unfair trade practices		
	3c. Ensures Al systems are compliant with applicable state		
	and federal laws and regulations		
	Evaluates risk of adverse consumer outcomes		
	3e. Considers data privacy and protection of consumer		
	data used in Al systems		
	3f. Ensures AI systems are suitable for their intended use		
	and should continue to be used as designed		
	3h. Ensures Al system risks are considered within		
	Enterprise Risk Management (ERM)		
	3i. Ensures Al system risks are considered within the Own		
	Risk and Solvency Assessment (ORSA)		
	3j. Ensures AI system risks are considered in software		
	development lifecycle (SDLC)		
	3k. Ensures Al system risk impact on financial reporting is		
	considered		
	3l. Trains employees about Al system use and defines		
<u> </u>	prohibited practices (if any)		
	3m. Quantifies AI system risk levels		
	3n. Provides standards and guidance for procuring and		
	engaging AI system vendors		
	3o. Ensures consumer complaints resulting from Al		
	systems are identified, tracked, and addressed		
	3p. Ensures consumer awareness in use of Al systems		
	through disclosures, policies, and procedures for consumer		
	notification		

### Commented [A16]: Recommendation:

Revise to read: "Ensures AI systems are compliant with applicable state and federal laws and regulations."

#### Rationale:

Adding the word "applicable" provides necessary clarity and prevents misinterpretation that insurers must demonstrate compliance with every state or federal requirement, regardless of whether it relates to a given Al system or line of business. As written, the provision could be read to imply a universal compliance obligation that is neither practical nor aligned with risk-based regulatory expectations.

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# **Exhibit C: AI Systems High-Risk Model Details** Purpose: To obtain detailed information on high-risk Al system models, such as models making automated decisions, that could cause adverse consumer, financial, or financial reporting impact. Al system risk criteria is set by the insurance company. To assist in identifying models for which this information is requested, regulators may request information on the company's risk assessment and a model inventory if such information has not otherwise already been provided. Company Instructions: Fill in the details for each of the AI system model(s) requested. Include all companies and lines of business. If the governance differs by entity, line of business, or state, work with your domestic regulator to determine if multiple submissions are needed. See definitions below. Regulator Instructions: Regulators should customize this tool to limit information requested to more targeted inquiries for use in a limited scope exam. Group or Company Legal Name: \_\_\_\_ NAIC Group or Company Code: \_\_\_\_ Company Contact Name: \_\_\_ Email: Date Form Completed ("as of") Date: \_ Model name Model type Model Implementation Date Model development (internal or third party - include vendor name) Model risk classification Model risk(s) and limitation(s) Al type (automate, augment, support) Testing model outputs (drift, accuracy, bias, unfair trade practices, performance

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degradation, etc.)

Last date of model testing

Use cases and purpose of model

AI Systems Evaluation Regulator Tool

#### Commented [A17]: Recommendation:

Amended to align with the language in Exhibit A of "material financial impact".

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Discuss how the model affects the	
financial statements, risk assessment or	
controls.	
Discuss how the model is reviewed for	
compliance with state and federal laws	
Replace with "Discuss how the model is	
reviewed for compliance with applicable	
state and federal laws, the unfair trade	
practices act and unfair claims settlement	
laws."	
To the extent permitted by law, Odiscuss if	
the company <u>is aware of</u> has had any <u>legal</u>	
or regulatory actions taken against them	
for use of this model. Actions may include	
but are not limited to <del>in</del> formal	
agreements, <del>voluntary</del> <u>required</u>	
compliance plans, administrative	
complaints, ongoing third-party	
monitoring, cease and desist,	
remediation, restitution, fines, penalties,	
investigations, consent orders or other	
regulatory agency actions.	

### Commented [A18]: Recommendation:

Revise to read: "Discuss how the model is reviewed for compliance with applicable state and federal laws, the unfair trade practices act, and unfair claims settlement laws."

#### Rationale:

Expanding the phrasing to "applicable state and federal laws" ensures Exhibit C captures a complete and accurate compliance review without imposing an expectation that companies address laws unrelated to the model's function. This revision better aligns the exhibit with a comprehensive, risk-based compliance process.

#### Commented [A19]: Recommendation:

Revise the instruction to incorporate the in-text edits.

#### Rationale:

The current language requires disclosure of an extremely broad range of actions, some of which may be confidential, privileged, or restricted from disclosure under state or federal law. Without acknowledging these legal constraints, the exhibit could inadvertently place companies in a position of having to choose between complying with Exhibit C and complying with statutory confidentiality requirements.

Exhibit D: Al Systems Model Data	Details						
urpose: To obtain detailed information of the source(s) and type(s) of data used in AI system model(s) to identify risk of adverse consumer							
mpact, financial, or financial reporting impa	act.						
Company Instructions: Provide details below test data as part of the development of AI modelement is sourced from a third party, in which development of AI system model(s) for the interpretation of business, or state, work with your domest Regulator Instructions: Regulators should cuexam.  Group or Company Legal Name:	v for the data used in Al systo odel(s), provide information ch case provide the name of nsurance operation. Include ic regulator to determine if n ustomize this tool to limit info	on whether the data element is the third-party vendor. Leave b all companies and lines of bus nultiple submissions are neede	s sourced internally or clank if a data source i iness. If the governan ed. See <u>definitions</u> bel	whether the data is not used in the ce differs by entity, line low.			
Company Contact Name:		Email:					
<u>Describe the Line of Business for Which this</u>	Response Applies (complet	te one for each line of business	<del>)</del> :				
Date Form Completed ("as of") Date:							
(1)	(2)	(3)	(4)	(5)			
Type of Data Element Used in Al	Type of Al System  Model(s)	Describe How the Company Uses the Data Throughout Their Insurance Operations (include operational	Internal Date	Third Party Data			

Commented [A20]: Recommendation:

Change to "material financial impact" to align with Exhibit A.

Commented [A21]: Recommendation: Revise to state "Describe the Line of Business for Which This Response Applies"

Rationale: To align with the edits made to this question in the other Exhibits. This also better allows regulators to customize the tool as needed for targeted inquiries.

Commented [A22]: Recommendation: Make disclosure of specific third-party data sources and vendor names optional rather than required.

#### Rationale:

Requiring companies to disclose the identity of thirdparty data sources and vendor names may create conflicts with existing confidentiality agreements and nondisclosure obligations. Many vendor contracts explicitly restrict disclosure of their identity or solutions in regulatory filings outside of privileged examination contexts. Making vendor identification a mandatory field could therefore place insurers at risk of breaching contractual obligations.

System Model(s)

**Aerial Imagery** 

practices by line of

insurance)

(E.g., Predictive vs.

**Generative AI)** 

Source / Vendor

Name (Optional)

Internal Data

Source

Age, Gender, Ethnicity/Race		
Consumer or Other Type of Insurance/Risk		
Score		
Crime Statistics		
Criminal Convictions (Exclude Auto-		
Related Convictions)		
Driving Behavior		
Education Level (Including school aptitude		
scores, etc.)		
Facial or Body Detection / Recognition /		
Analysis		
Geocoding (including address, city, county,		
state, ZIP code, lat/long, MSA/CSA, etc.)		
Geo-Demographics (including ZIP/county-		
based demographic characteristics)		
Household Composition		
Image/video Analysis		
Income		
Job History		
Loss Experience		
Medical, including Biometrics, genetic		
information, pre-existing conditions,		
diagnostic data, etc.		
Natural Catastrophe Hazard (Fire, Wind,		
Hail, Earthquake, Severe Convective		
Storms)		
Online social media, including		
characteristics for targeted advertising		
Personal Financial Information		
Telematics/Usage-based insurance		

Commented [A23]: IA suggested edit.

Vehicle-Specific Data including VIN		
characteristics		
Voice Analysis		
Weather		
Other: Non-Traditional Data Elements		
(Please provide examples)		



## **DEFINITIONS AND APPENDIX**

Where available, for the purposes of this evaluation terms are defined in accordance with the NAIC Model Bulletin on the Use of AI Systems by Insurers (https://content.naic.org/sites/default/files/2023-12-4%252520Model%252520Bulletin\_Adopted\_0.pdf):

"Adverse Consumer Outcome" refers to an Al System decision (output) by an insurance company that is subject to insurance regulatory standards enforced by the Department that adversely impacts the consumer in a manner that violates those standards.

"Algorithm" means a clearly specified mathematical process for computation; a set of rules that, if followed, will give a prescribed result.

"Al System" is a machine-based system that can, for a given set of objectives, generate outputs such as predictions, recommendations, content (such as text, images, videos, or sounds), or other output influencing decisions made in real or virtual environments. Al Systems are designed to operate with varying levels of autonomy.

"Artificial Intelligence (AI)" refers to a branch of computer science that uses data processing systems that perform functions normally associated with human intelligence, such as reasoning, learning, and self-improvement, or the capability of a device to perform functions that are normally associated with human intelligence such as reasoning, learning, and self-improvement. This definition considers machine learning to be a subset of artificial intelligence.

"Consumer Impact" refers to a decision by an Insurer that is subject to insurance regulatory standards enforced by the Department.

"Degree of Potential Harm to Consumers" refers to the severity of adverse economic impact that a consumer might experience as a result of an Adverse Consumer Outcome.

"Externally Trained Models" Transferred learnings from pre-trained models developed by a third party on external reference datasets.

"Generative Artificial Intelligence (Generative AI)" refers to a class of AI Systems that generate content in the form of data, text, images, sounds, or video, that is similar to, but not a direct copy of, pre-existing data or content.

"Inherent Risk" Refers to an assessment of risk before considering risk-mitigation strategies or internal controls.

"Internally Trained Models" Models developed from data internally obtained by the company.

- "Machine Learning (ML)" Refers to a field within artificial intelligence that focuses on the ability of computers to learn from provided data without being explicitly programmed.
- "Material Financial Impact" Material financial impact refers to costs or risks that significantly affect, or would reasonably be expected to have significant effect, on the debt and financial obligation limits prescribed by Federal or State laws and regulations.
- "Model Drift" refers to the decay of a model's performance over time arising from underlying changes such as the definitions, distributions, and/or statistical properties between the data used to train the model and the data on which it is deployed.
- "Neural Network Models" Include but not limited to: Single/multi-layer perceptrons/fully connected networks (MLPs/FCs), Deep Learning (DL), Convolutional Neural Networks (CNNs), Recurrent Neural Networks (RNNs), Long Short-Term Memory Neural Networks (LSTMs), Sequence Models, Large Language Models (LLMs), and Reinforcement Learning Models (RLs).
- "Predictive Model" refers to the mining of historic data using algorithms and/or machine learning to identify patterns and predict outcomes that can be used to make or support the making of decisions.
- "Residual Risk" Refers to an assessment of risk after considering risk-mitigation strategies or controls.
- "Third Party" for purposes of this bulletin means an organization other than the insurance company that provides services, data, or other resources related to AI.
- "Validation Method" The source of the reference data used for validation, whether Internal, External, or Both.
- "Use Case" A description of a specific function in which a product or service is used.

# Operations

**Marketing** - Examples: market research, target advertising, market/coverage expansion, customer segment target marketing, demand modeling, agent/broker incentive plans, up/cross-selling.

**Underwriting** - Examples: Policy/coverage acceptance, company placement/tiering, schedule rating, decisions based on telematics/UBI, report ordering, retention modeling, inspections, anomaly detection.

Ratemaking/Pricing - Examples: Development of overall/base rates, expense/loss loadings, estimation of trends and loss development, development of manual rating factors, tiering criteria, insurance credit scoring, territory boundary definitions, numeric/categorical level groupings and interactions, individual risk rating, telematics/UBI, price optimization, schedule rating factors.

**Claims** - Examples: Claim assignment, triage/fast-tracking, individual/bulk claim reserving including loss estimation, imaging/video analysis, fraud detection, litigation, estimation of closure rates, salvage/subrogation, examination/report ordering.

**Customer Service** - Examples: Agent/broker/internet/customer service interaction (chatbots), online/smart phone apps, loss prevention/risk mitigation advice, payment plans, complaints.

**Other:** Cyber Security, Fraud Detection, Strategic Operations, Reserving, Investments, Capital Management, Financial Reporting, Reinsurance, Legal, Legal Exposure, Reputation Risk.