

B.2.2 Rationale ISO 21448 (SOTIF)

Cell	Rationale Coverage	Rationale Depth
M9	moderate coverage: verification and validation strategy definition	moderate depth: "...the verification and validation strategy for SOTIF, including validation targets, shall be defined"
O9	very strong coverage: explicitly demands sufficient coverage of relevant scenario space	very strong depth: "...the verification and validation strategy for SOTIF...shall consider...the sufficient coverage of the relevant scenario space"
Y9	very strong coverage: review of completeness, correctness and consistency	strong depth: "the work products resulting from the SOTIF activities shall be reviewed for completeness, correctness and consistency;"
AA9	moderate coverage: evaluation of argument for SOTIF achievement	moderate depth: "the argument for the achievement of the SOTIF shall be evaluated..."
T10	very strong coverage: correct system behavior in hazardous scenarios and foreseeable misuse	very strong depth: "the functionality of the system and its elements shall behave as specified for known hazardous scenarios and reasonably foreseeable misuse"
Y10	very strong coverage: targets correctness of work products	very strong depth: "the work products resulting from the SOTIF activities shall be reviewed for ... correctness..."
T14	very strong coverage: correct functionality without fault in hazardous and misuse scenarios	very strong depth: "the functionality of the system and its elements shall behave as specified for known hazardous scenarios and reasonably foreseeable misuse"
K18	strong coverage: specifies measures for SOTIF-related risks, directly tied to robustness	strong depth: "measures addressing SOTIF-related risks shall be specified and applied..."
T18	very strong coverage: functional correctness under hazardous scenarios and foreseeable misuse	very strong depth: "the functionality of the system and its elements shall behave as specified for known hazardous scenarios and reasonably foreseeable misuse"
X18	strong coverage: focus on residual risk in unknown scenarios	very strong depth: "the validation results shall demonstrate that the residual risk from unknown hazardous scenarios meets the acceptance criteria with sufficient confidence"
K19	strong coverage: system awareness through specified measures against foreseeable misuse	strong depth: "If driver monitoring detects continued misuse despite driver warnings, then measures can be taken to discourage the hazardous behaviour..." (sub-chapter 8.3.5)
AC19	very weak coverage: field monitoring across operation phase	moderate depth: "For higher levels of driving automation, it can be relevant to implement monitoring mechanisms...These can detect potential functional insufficiencies before accidents occur..." (sub-chapter 13.3)
K31	strong coverage: usability through measures that facilitate safe system interaction and control transfer	strong depth: "The HMI clearly communicates the handover request to the driver and provides the necessary information..." (sub-chapter 8.3.4)

Cell	Rationale Coverage	Rationale Depth
K32	weak coverage: operability only indirectly via misuse prevention and HMI improvement	depth: "Measures for addressing reasonably foreseeable misuse can include, but are not limited to: ... improving the HMI" (sub-chapter 8.3.5)
K33	strong coverage: measures that directly prevent operation errors	very strong depth: "implementation of a driver monitoring and warning system; ... can be a useful method to prevent a reasonably foreseeable driver misuse..." (sub-chapter 8.3.5)
K34	weak coverage: only risk-related user education	moderate depth: "customer education (information and training)" (sub-chapter 8.3.5)
K35	strong coverage: measures for external intervention addressing controllability risks	very strong depth: "Measures for handing over authority from a system to the driver are aimed at increasing controllability..." (sub-chapter 8.3.4)
D37	moderate coverage: specification and design addressed but not broader lifecycle documentation	moderate depth: "the specification and design shall contain information sufficient to conduct the SOTIF-related activities..."
E37	moderate coverage: updates ensured but limited to specification and design	moderate depth: "the specification and design shall be updated as required after each iteration of the SOTIF-related activities ..."
H37	weak coverage: only specifies acceptance criteria	moderate depth: "The acceptance criteria for the residual risk shall be specified"
L37	moderate coverage: updating of specification input	moderate depth: "the input information to specification and design shall be updated"
P37	strong coverage: multiple forms of evidence	depth: "...shall consider 3) necessary evidence (e.g. analysis results, test reports, dedicated investigations)"
R37	very strong coverage: comprehensive and traceable documentation of rationale for V&V methods and targets	very strong depth: "the rationale for suitability of the selected verification and validation methods and validation targets shall be provided"
AA37	moderate coverage: evaluation and decision of SOTIF release	moderate depth: "the argument for the achievement of the SOTIF shall be evaluated and a recommendation for approval or rejection..."
I42	very strong coverage: identification of insufficiencies and hazardous conditions across multiple aspects demanded	very strong depth: "Potential insufficiencies of specification, potential performance insufficiencies and potential triggering conditions including reasonably foreseeable direct misuse shall be identified..."
J42	moderate coverage: focus on evaluation for SOTIF acceptability without full assessment of all change impacts	strong depth: "The response of the system shall be evaluated for SOTIF acceptability ... identification of functional insufficiencies and related triggering conditions"
K42	weak coverage: indirectly linked through effectiveness of applied measures	strong depth: "— diagnostic ability for SOTIF-related system behaviour; " (sub-chapter 8.3.6)

Cell	Rationale Coverage	Rationale Depth
N42	strong coverage: analysability linked to evaluation of hazardous scenarios within V&V strategy	very strong depth: "...the system is analysed to determine if existing functions are impacted and these functions are retested with regression tests..." (sub-chapter 9.3)
Q42	moderate coverage: analysability through evidence generation procedures, but scope limited to SOTIF V&V strategy	moderate depth: "the verification and validation strategy for SOTIF... shall consider 4) procedures to generate the evidence"
V44	moderate coverage: V&V strategy linked with sufficient coverage of known scenarios	depth: "known scenarios shall be sufficiently covered according to the verification and validation strategy"
W44	moderate coverage: demonstrating validation targets	moderate depth: "the verification results shall demonstrate that the validation targets are met."
X44	moderate coverage: focus on demonstrating residual risk acceptance with confidence	strong depth: "the validation results shall demonstrate that the residual risk from unknown hazardous scenarios meets the acceptance criteria with sufficient confidence"
Y44	moderate coverage: review of work products	moderate depth: "the work products resulting from the SOTIF activities shall be reviewed ..."
G53	very strong coverage: hazardous behavior and defining parameters addressed	very strong depth: "The risk that arises from the hazardous behaviour of the intended functionality...shall be systematically identified and evaluated. The parameters that define the circumstances...shall be specified"
K53	strong coverage: constraints through specified measures against SOTIF-related risks	strong depth: "Measures for functional restriction are aimed at maintaining a partial functionality by degrading (or limiting) the intended functionality..." (sub-chapter 8.3.3)
F54	very strong coverage: systematic identification of hazards at vehicle level mandated	very strong depth: "The hazards arising from the intended functionality, defined at the vehicle level, shall be systematically identified"
G54	very strong coverage: systematic identification and evaluation of hazardous behaviour and scenarios mandated	very strong depth: "The risk that arises from the hazardous behaviour of the intended functionality, and the corresponding scenarios ... shall be systematically identified and evaluated"
I54	very strong coverage: explicitly demands identification of insufficiencies and misuse conditions	very strong depth: "Potential insufficiencies of specification, potential performance insufficiencies and potential triggering conditions including reasonably foreseeable direct misuse shall be identified and those leading to a hazardous behaviour shall be determined"

Cell	Rationale Coverage	Rationale Depth
J54	very strong coverage: evaluation of system response for SOTIF acceptability including insufficiencies and misuse conditions	very strong depth: "The response of the system shall be evaluated for SOTIF acceptability...including the identification of functional insufficiencies and related triggering conditions relevant in the context of reasonably foreseeable direct and indirect misuses"
S54	moderate coverage: focus on evaluation of identified scenarios	strong depth: "identified potentially hazardous scenarios shall be evaluated if they are hazardous or not"
U54	moderate coverage: evaluation of hazardous behaviour	very strong depth: "the potentially hazardous behaviour due to the specified behaviour ... shall be evaluated concerning its acceptability"
AC54	strong coverage: continuous field monitoring in operation phase to identify and control risks	very strong depth: "Risk evaluation and hazard mitigation... an immediate reaction might be necessary to mitigate an unreasonable risk" (sub-chapter 13.4)
K55	moderate coverage: measures for SOTIF-related risks	weak depth: "Measures for functional restriction are aimed at maintaining a partial functionality by degrading (or limiting) the intended functionality..." (sub-chapter 8.3.3)
K56	very strong coverage: misuse measures explicitly address driver monitoring and warning systems	very strong depth: "implementation of a driver monitoring and warning system... A system for detection and warning of driver distraction..." (sub-chapter 8.3.5)
K81	strong coverage: operator intervention capability by mandating measures to handle SOTIF-related risks	strong depth: "Measures for handing over authority from a system to the driver are aimed at increasing controllability..." (sub-chapter 8.3.4)
K83	moderate coverage: measures that align with monitoring and integration of relevant system indicators	strong depth: "...data monitoring ability for SOTIF-related system behaviour" (sub-chapter 8.3.6)
AB83	very strong coverage: definition of field monitoring process before release	very strong depth: "a field monitoring process to ensure the SOTIF during operation shall be defined before release"
AC83	very strong coverage: monitoring process execution during operation phase	very strong depth: "the field monitoring process shall be executed to maintain the achievement of the SOTIF during the operation phase"
Z87	moderate coverage: focus on argumentation for SOTIF achievement	strong depth: "an argument for the achievement of the SOTIF shall be provided..."

B.3.2 Rationale EU AI Act

Cell	Rationale Coverage	Rationale Depth
P10	very strong coverage: consistent performance for intended purpose	very strong depth: "Testing shall ensure that high-risk AI systems perform consistently for their intended purpose..."
BX11	strong coverage: accuracy in relation to intended use	weak depth: "High-risk AI systems shall be designed and developed in such a way that they achieve an appropriate level of accuracy..."
CD11	moderate coverage: quality management for development and assurance	weak depth: "techniques, procedures and systematic actions to be used for the development, quality control and quality assurance of the high-risk AI system;"
P15	strong coverage: consistent fault-free operation through testing of high-risk AI systems under intended purpose	very strong depth: "Testing shall ensure that high-risk AI systems perform consistently for their intended purpose and that they are in compliance with the requirements..."
BZ15	moderate coverage: general resilience	moderate depth: "High-risk AI systems shall be as resilient as possible regarding errors, faults or inconsistencies..."
J17	weak coverage: limited scope of risk management to what can be mitigated by design or information	moderate depth: "This process should ensure that the provider identifies risks or adverse impacts and implements mitigation measures for the known and reasonably foreseeable risks of AI systems to the health, safety and fundamental rights..." (Recital 65 (4))
BZ17	strong coverage: continued operation despite faults via redundancy and fail-safe mechanisms	strong depth: "The robustness of high-risk AI systems may be achieved through technical redundancy solutions, which may include backup or fail-safe plans."
BZ18	weak coverage: indirect reference to mitigation and feedback loop handling	weak depth: "...backup or fail-safe plans." (Recital 75 (4))
BX19	very strong coverage: 'robustness' as central performance criterion across lifecycle	strong depth: "They should be resilient in relation to harmful or otherwise undesirable behaviour that may result from limitations within the systems or the environment in which the systems operate..." (Recital 75 (2))
BZ19	very strong coverage: robustness explicitly addressed as central requirement with technical and organisational measures	very strong depth: "Technical robustness is a key requirement for high-risk AI systems." (Recital 75 (1))
BL33	strong coverage: operability through human-machine interface	strong depth: "High-risk AI systems shall be designed and developed in such a way, including with appropriate human-machine interface tools, that they can be effectively overseen by natural persons..."

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BM34	strong coverage: prevention and minimisation of misuse risks through human oversight	moderate depth: "Human oversight shall aim to prevent or minimise the risks to health, safety or fundamental rights... under conditions of reasonably foreseeable misuse..."
BQ35	weak coverage: oversight assignment	moderate depth: "...natural persons to whom human oversight is assigned have the necessary competence, training and authority to carry out that role..." (Recital 73 (3))
BU36	very strong coverage: user control to intervene or disregard AI system functioning	strong depth: "... not to use the high-risk AI system or to otherwise disregard, override or reverse the output of the high-risk AI system. . ."
BV36	very strong coverage: human external agent intervention in system functioning with direct stop mechanism	very strong depth: "to intervene in the operation of the high-risk AI system or interrupt the system through a 'stop' button or a similar procedure that allows the system to come to a halt in a safe state"
AY37	very strong coverage: comprehensive user instructions ensuring clarity of functionalities to intended users	very strong depth: "High-risk AI systems should be designed in a manner to enable deployers to understand how the AI system works, evaluate its functionality, and comprehend its strengths and limitations..." (Recital 72 (2))
BS37	moderate coverage: user clarity regarding automation bias and system output reliance	strong depth: "natural persons to whom human oversight is assigned are enabled, as appropriate and proportionate, (b) to remain aware of the possible tendency of automatically relying or over-relying on the output..."
CV37	strong coverage: obligation to inform users about system deployment	strong depth: "Deployers ... should...inform the natural persons that they are subject to the use of the high-risk AI system." (Recital 93 (4)).
CW37	strong coverage: obligation for deployers to inform natural persons of AI system use	strong depth: "Deployers of high-risk AI systems ... shall inform the natural persons that they are subject to the use of the high-risk AI system" (Recital 93 (4)(5)(6)).
CX37	very strong coverage: obligation for informing users about AI interaction	very strong depth: "Providers shall ensure that AI systems intended to interact directly with natural persons are designed and developed in such a way that the natural persons concerned are informed that they are interacting with an AI system..."
CZ37	strong coverage: provision and updating of information and documentation	moderate depth: "Providers of general-purpose AI models shall: draw up, keep up-to-date and make available information and documentation to providers of AI systems..."

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E38	very strong coverage: establishment, implementation, documentation and maintenance of risk management system	very strong depth: "This process should ensure that the provider identifies risks or adverse impacts and implements mitigation measures... as well as justification and documentation of any significant decisions and actions taken..." (Recital 65 (4))
AN38	very strong coverage: complete, coherent, and up-to-date documentation	very strong depth: "Having comprehensible information on how high-risk AI systems have been developed and how they perform throughout their lifetime is essential to enable traceability..." (Recital 71 (1))
AO38	very strong coverage: comprehensive technical documentation ensuring coherence and traceability	very strong depth: "Having comprehensible information on how high-risk AI systems have been developed and how they perform throughout their lifetime is essential to enable traceability..." (Recital 71 (1))
AY38	strong coverage: comprehensive, transparent, and comprehensible instructions	moderate depth: "High-risk AI systems should be accompanied by appropriate information in the form of instructions of use..." (Recital 72 (3))
BQ38	moderate coverage: comprehensibility through enabling oversight	strong depth: "...mechanisms to guide and inform a natural person to whom human oversight has been assigned to make informed decisions..." (Recital 73 (4))
BY38	strong coverage: comprehensible declaration of accuracy metrics	strong depth: "The levels of accuracy and the relevant accuracy metrics of high-risk AI systems shall be declared in the accompanying instructions of use."
CA38	strong coverage: documentation requirement ensures transparency and comprehensibility	very strong depth: "That system shall be documented in a systematic and orderly manner in the form of written policies, procedures and instructions..."
CK38	very strong coverage: systematic, orderly documentation through policies, procedures, instruction	strong depth: "systems and procedures for record-keeping of all relevant documentation and information"
CY38	very strong coverage: technical documentation ensures comprehensibility	very strong depth: 'draw up and keep up-to-date the technical documentation of the model ...'
DB38	very strong coverage: documentation for GPAI	strong depth: "...documentation ... contain, at a minimum, the elements set out in Annex XII"
DG38	strong coverage: demands 'complete and detailed description'	strong depth: "a complete and detailed description of the process and rationale behind the training, testing and validation..."
DJ38	strong coverage: documentation of monitoring system	strong depth: "Providers shall establish and document a post-market monitoring system ..."

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DN38	strong coverage: integration of monitoring plan into technical documentation	very strong depth: "The post-market monitoring plan shall be part of the technical documentation referred to in Annex IV."
H43	strong coverage: systematic review and continuous evaluation of risks across lifecycle	strong depth: "the evaluation of other risks possibly arising, based on the analysis of data gathered from the post-market monitoring system..."
CC43	strong coverage: documentation and design verification	moderate depth: "techniques, procedures and systematic actions to be used for the design, design control and design verification of the high-risk AI system"
CD43	strong coverage: documentation and structured procedures enable effective assessment	moderate depth: "techniques, procedures and systematic actions to be used for the development, quality control and quality assurance of the high-risk AI system"
CR43	weak coverage: investigation and collaboration allow partial assessment	weak depth:
DC43	strong coverage: evaluation protocols and adversarial testing	moderate depth: "...perform model evaluation in accordance with standardised protocols and tools reflecting the state of the art, including conducting and documenting adversarial testing of the model. ..."
DK43	strong coverage: collection, documentation, and analysis of performance data	strong depth: "The post-market monitoring system shall actively and systematically collect, document and analyse relevant data..."
L45	moderate coverage: acceptability of residual risk	moderate depth: "The risk-management system should consist of a continuous, iterative process that is planned and run throughout the entire lifecycle of a high-risk AI system..." (Recital 65 (1))
P45	very strong coverage: testing of high-risk AI systems to ensure consistent performance and compliance	very strong depth: "High-risk AI systems shall be tested for the purpose of identifying the most appropriate and targeted risk management measures" (Recital 65 (1))
Q45	moderate coverage: testing in real-world conditions	moderate depth: "Testing procedures may include testing in real-world conditions in accordance with Article 60" (Recital 65 (4))
R45	very strong coverage: continuous and purpose-oriented testing with metrics and thresholds	very strong depth: "The testing of high-risk AI systems shall be performed...prior defined metrics and probabilistic thresholds..."
CE45	strong coverage: examination, test and validation procedures	strong depth: "examination, test and validation procedures to be carried out before, during and after the development of the high-risk AI system, and the frequency with which they have to be carried out"

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I54	strong coverage: continuous adoption of targeted measures to constrain operation within safe parameters under identified risks	strong depth: "This process should ensure that the provider identifies risks or adverse impacts and implements mitigation measures for the known and reasonably foreseeable risks..." (Recital 65 (4))
J54	moderate coverage: only risks that can be mitigated through design or technical information	strong depth: "...the provider should cover uses of AI systems which, while not directly covered by the intended purpose... may nevertheless be reasonably expected to result from readily predictable human behaviour..." (Recital 65 (7))
M54	strong coverage: system operation constraints to acceptable residual risk thresholds	strong depth: "The risk-management system should consist of a continuous, iterative process that is planned and run throughout the entire life-cycle of a high-risk AI system... aimed at identifying and mitigating the relevant risks of AI systems on health, safety and fundamental rights" (Recital 65 (1)(2))
N54	very strong coverage: system operation constraints through mandatory mitigation and control of residual risks	very strong depth: "implementation of adequate mitigation and control measures addressing risks that cannot be eliminated"
AC54	moderate coverage: constrains system operation indirectly through governance of training, validation and testing data	strong depth: "appropriate measures to detect, prevent and mitigate possible biases..."
DD54	weak coverage: systemic risk mitigation at Union level	weak depth: "...assess and mitigate possible systemic risks at Union level, including their sources..."
DF54	weak coverage: systemic risk focus	moderate depth: "...the measures, procedures and modalities for the assessment and management of the systemic risks ... shall be proportionate to the risks..."
DP54	strong coverage: investigation, transparency of reporting, and comprehensive risk assessment	moderate depth: "...This shall include a risk assessment of the incident, and corrective action."
F55	very strong coverage:	continuous identification and analysis of known and foreseeable risks very strong depth: "the identification and analysis of the known and the reasonably foreseeable risks that the high-risk AI system can pose to health, safety or fundamental rights..."
G55	very strong coverage: continuous iterative risk process with explicit estimation and evaluation of emerging risks and foreseeable misuse	very strong depth: "the estimation and evaluation of the risks that may emerge when the high-risk AI system is used in accordance with its intended purpose, and under conditions of reasonably foreseeable misuse"

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K55	very strong coverage: identification of combined effects and interactions to minimise unacceptable risks	very strong depth: "the provider identifies risks or adverse impacts and implements mitigation measures for the known and reasonably foreseeable risks of AI systems..." (Recital 65 (4))
S55	moderate coverage: risk management linked to vulnerable groups	strong depth: "That process should be aimed at identifying and mitigating the relevant risks of AI systems on health, safety and fundamental rights" (Recital 65 (2))
AQ55	very strong coverage: logging capabilities enabling identification of risk situations	very strong depth: "high-risk AI systems should technically allow for the automatic recording of events, by means of logs, over the duration of the lifetime of the system" (Recital 71 (5))
CH55	strong coverage: general requirement for implementing a quality management system including risk management	weak depth: "the risk management system referred to in Article 9"
DC55	very strong coverage: focus on identifying and mitigating systemic risks	moderate depth: "...with a view to identifying and mitigating systemic risks. . ."
DE55	strong coverage: systemic risk identification at Union level	strong depth: "the identification of the type and nature of the systemic risks at Union level, including their sources, where appropriate"
N56	moderate coverage: mitigation and control measures for residual risk	strong depth: "the risk-management system should adopt the most appropriate risk-management measures in light of the state of the art in AI" (Recital 65 (5))
CJ57	strong coverage: serious incident communication	weak depth: "procedures related to the reporting of a serious incident in accordance with Article 73"
CQ57	moderate coverage: regulatory compliance action linked to risk warning	strong depth: "... shall immediately take the necessary corrective actions to bring that system into conformity, to withdraw it, to disable it, or to recall it. . ."
CR57	very weak coverage: authority notification and corrective action	weak depth: "...inform the market surveillance authorities competent for the high-risk AI system concerned. . ."
CU57	weak coverage: focus on reporting and suspension duties	very weak depth: "Where deployers have identified a serious incident, they shall also immediately inform first the provider..."
CZ58	moderate coverage: focus on information exchange	moderate depth: "...to providers of AI systems who intend to integrate the general-purpose AI model into their AI systems..."

Cell	Rationale Coverage	Rationale Depth
Y61	strong coverage: complete data preparation processes for training, validation and testing	very strong depth: "Data sets for training, validation and testing, including the labels, should be relevant, sufficiently representative, and to the best extent possible free of errors and complete in view of the intended purpose of the system" (Recital 67 (3))
AA61	moderate coverage: completeness of data sets through governance and management practices	moderate depth: "an assessment of the availability, quantity and suitability of the data sets..."
AD61	very strong coverage: identification and addressing of data gaps	very strong depth: "the identification of relevant data gaps or shortcomings that prevent compliance with this Regulation, and how those gaps and shortcomings can be addressed."
AE61	very strong coverage: relevance, representativeness, completeness, and error-freeness of data sets	very strong depth: "Training, validation and testing data sets shall be relevant, sufficiently representative, and to the best extent possible, free of errors and complete in view of the intended purpose..."
CG61	strong coverage: multiple phases of data lifecycle	moderate depth: "systems and procedures for data management, including data acquisition, data collection, data analysis, data labelling, data storage, data filtration, data mining, data aggregation, data retention..."
Y63	strong coverage: coherence and error-free processing of training, validation, and testing data-sets	very strong depth: "Data sets for training, validation and testing, including the labels, should be relevant, sufficiently representative, and to the best extent possible free of errors and complete..." (Recital 67 (3))
Z64	moderate coverage: link between assumptions and representation	moderate depth: "the formulation of assumptions, in particular with respect to the information that the data are supposed to measure and represent;"
AE64	very strong coverage: accuracy by demanding relevance, representativeness, error-free and complete data with statistical adequacy	strong depth: "... data sets shall be relevant, sufficiently representative, and to the best extent possible, free of errors and complete in view of the intended purpose. They shall have the appropriate statistical properties..."
AG64	weak coverage: bias detection and correction via special category data	strong depth: "the bias detection and correction cannot be effectively fulfilled by processing other data, including synthetic or anonymised data"
X66	moderate coverage: credibility of data through governance and management practices on collection and origin	moderate depth: "High-quality data sets for training, validation and testing require the implementation of appropriate data governance and management practices..." (Recital 67 (2))

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V67	strong coverage: link of data governance and management practices to standards, conventions, and regulations	strong depth: "Training, validation and testing data sets shall be subject to data governance and management practices ..."
W67	moderate coverage: alignment of data attributes with standards and governance conventions	weak depth: "...the relevant design choices"
AL67	very strong coverage: adherence to data protection regulations and standards in bias detection context	very strong depth: "the records of processing activities pursuant to Regulations (EU) 2016/679 and (EU) 2018/1725 and Directive (EU) 2016/680 include the reasons why the processing of special categories of personal data was strictly necessary..."
CF67	weak coverage: alignment with standards and regulatory conventions	weak depth: "...standards, to be applied ... ensure that the high-risk AI system complies with those requirements"
AH68	strong coverage: limitation, technical safeguards, and state-of-the-art privacy-preserving measures	very strong depth: "the special categories of personal data are subject to technical limitations on the re-use of the personal data, and state-of-the-art security and privacy-preserving measures..."
AI68	very strong coverage: strict access control, safeguards, and confidentiality obligations	very strong depth: "the special categories of personal data are subject to measures to ensure that the personal data processed are secured, protected, subject to suitable safeguards, including strict controls and documentation of the access..."
AJ68	very strong coverage: restricts access, transfer, and transmission of special categories of personal data	very strong depth: "the special categories of personal data are not to be transmitted, transferred or otherwise accessed by other parties"
X71	very strong coverage: governance and management practices for training, validation and testing data enabling audit trail	very strong depth: "data collection processes and the origin of data, and in the case of personal data, the original purpose of the data collection"
AL71	very strong coverage: recording of processing reasons for sensitive data enabling audit trail	very strong depth: "the records of processing activities... include the reasons why the processing of special categories of personal data was strictly necessary to detect and correct biases..."
CG71	moderate coverage: documentation and auditability of processes through quality management	weak depth: "...documented in a systematic and orderly manner in the form of written policies, procedures and instructions..."
Y72	strong coverage: governance and management of training, validation and testing data including annotation and labelling	very strong depth: "Data sets for training, validation and testing, including the labels, should be relevant, sufficiently representative, and to the best extent possible free of errors and complete..." (Recital 67 (3))

Cell	Rationale Coverage	Rationale Depth
AA73	very strong coverage: assessment of availability of training, validation, and testing datasets	very strong depth: "an assessment of the availability, quantity and suitability of the data sets that are needed"
AA76	strong coverage: representativeness by mandating assessment of availability, quantity and suitability of training, validation and testing data sets	very strong depth: "Data sets for training, validation and testing... should be relevant, sufficiently representative, and to the best extent possible free of errors and complete..." (Recital 67 (3))
AB76	very strong coverage: data distribution corresponds to environment (free of biases)	very strong depth: "Data sets for training, validation and testing, including the labels, should be relevant, sufficiently representative..." (Recital 67 (3))
AE76	very strong coverage: data representativeness and bias freedom linked to environment and intended users	very strong depth: "Data sets for training, validation and testing... should be relevant, sufficiently representative, and to the best extent possible free of errors ..." (Recital 67 (3))
AF76	very strong coverage: representativeness of data distribution in relation to geographical, contextual, behavioural, and functional environment	very strong depth: "Data sets for training, validation and testing... should be relevant, sufficiently representative, and to the best extent possible free of errors and complete in view of the intended purpose of the system..." (Recital 67 (3))
AG76	moderate coverage: obligation to process personal data only when bias detection and correction cannot be	moderate depth: "the bias detection and correction cannot be effectively fulfilled by processing other data, including synthetic or anonymised data"
CT76	strong coverage: relevance and sufficient representativeness of input data	moderate depth: "...deployer shall ensure that input data is relevant and sufficiently representative in view of the intended purpose of the high-risk AI system."
DE77	strong coverage: independence assurance through 'functionally separate, isolated and protected environment'	strong depth: "any personal data to be processed ... are in a functionally separate, isolated and protected data processing environment..."
U77	strong coverage: quality criteria for training, validation and testing datasets to prevent leakage and ensure independence	very strong depth: "High-quality data sets for training, validation and testing require the implementation of appropriate data governance and management practices... Data sets for training, validation and testing, including the labels, should be relevant, sufficiently representative, and to the best extent possible free of errors and complete..." (Recital 67 (2)(3))
AM77	weak coverage: restricts applicability only to testing datasets	weak depth: "...paragraphs 2 to 5 apply only to the testing data sets..."
AK79	moderate coverage: temporality linked to data lifecycle by mandating deletion upon correction of bias or end of retention period	strong depth: "the special categories of personal data are deleted once the bias has been corrected or the personal data has reached the end of its retention period..."

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DF79	weak coverage: focus on data deletion event	weak depth: "...deleted once the participation in the sandbox has terminated or the personal data has reached the end of its retention period..."
BU82	strong coverage: timely prevention of harm	strong depth: "...to decide, in any particular situation, not to use the high-risk AI system or to otherwise disregard, override or reverse the output of the high-risk AI system. . ."
BV82	very strong coverage: operator intervention in timely manner for prevention of harm or hazard	very strong depth: "to intervene in the operation of the high-risk AI system or interrupt the system through a 'stop' button or a similar procedure that allows the system to come to a halt in a safe state"
DI82	strong coverage: operator ability to reverse and disregard AI outputs (timely prevention of harm)	strong depth: "the predictions, recommendations or decisions of the AI system can be effectively reversed and disregarded"
AW83	strong coverage: unique traceability of human actions through mandatory logging	strong depth: "the identification of the natural persons involved in the verification of the results..."
AZ83	moderate coverage: traceability of human actors via identity and contact information	moderate depth: "The instructions for use shall contain at least the following information: (a) the identity and the contact details of the provider..."
BW83	moderate coverage: focus on human traceability	strong depth: "no action or decision is taken by the deployer . . . unless that identification has been separately verified and confirmed by at least two natural persons with the necessary competence, training and authority"
CM83	strong coverage: 'accountability framework' ensuring traceability	strong depth: "...an accountability framework setting out the responsibilities of the management and other staff..."
AR84	moderate coverage: observation of system functioning through mandatory logging	moderate depth: "Having comprehensible information on how high-risk AI systems have been developed and how they perform throughout their lifetime is essential..." (Recital 71)
AS84	very strong coverage: logging capabilities for monitoring indicators	very strong depth: "Having comprehensible information on how high-risk AI systems have been developed and how they perform throughout their lifetime is essential... as well as monitoring of their operations and post market monitoring" (Recital 71 (1))
BN84	moderate coverage: risk-commensurate oversight linking indirectly to continuous monitoring	weak depth: "High-risk AI systems should be designed and developed in such a way that natural persons can oversee their functioning, ensure that they are used as intended..." (Recital 73 (1))

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BO84	strong coverage: linkage of oversight measures to risk, autonomy, and operational context	moderate depth: "High-risk AI systems should be designed and developed in such a way that natural persons can oversee their functioning, ensure that they are used as intended and that their impacts are addressed over the system's lifecycle." (Recital 73 (1))
BP84	strong coverage: link between oversight measures, risk context, and integration of monitoring into operation	strong depth: "...natural persons can oversee their functioning, ensure that they are used as intended and that their impacts are addressed over the system's lifecycle." (Recital 73 (1))
BR84	strong coverage: human oversight enablement and monitoring capacity	strong depth: "...be able to duly monitor its operation, including in view of detecting and addressing anomalies, dysfunctions and unexpected performance..."
BW84	strong coverage: continuous oversight through mandatory human verification and monitoring	very strong depth: "...no action or decision may be taken by the deployer on the basis of the identification ... unless this has been separately verified and confirmed by at least two natural persons..." (Recital 73 (5))
CI84	strong coverage: post-market monitoring system ensuring systematic observation	moderate depth: "the setting-up, implementation and maintenance of a post-market monitoring system, in accordance with Article 72"
CU84	very strong coverage: continuous monitoring of operation	strong depth: "Deployers shall monitor the operation of the high-risk AI system ..."
DH84	moderate coverage: oversight by qualified personnel	weak depth: "the testing in real world conditions is effectively overseen by the provider or prospective provider..."
AX87	very strong coverage: transparency of system operation to enable interpretation of outputs	very strong depth: "High-risk AI systems shall be designed and developed in such a way as to ensure that their operation is sufficiently transparent to enable deployers to interpret a system's output and use it appropriately..."
BF87	strong coverage: input data specifications linked to understanding of system behavior	moderate depth: "...specifications for the input data, or any other relevant information in terms of the training, validation and testing data sets used..."
BG87	moderate coverage: information that enables deployers to interpret outputs	strong depth: "where applicable, information to enable deployers to interpret the output of the high-risk AI system and use it appropriately;"
BI87	strong coverage: human oversight measures and technical support for understanding outputs	strong depth: "...including the measures to facilitate the interpretation of the outputs of the AI system by the deployers" (Recital 72 (5))

Cell	Rationale Coverage	Rationale Depth
BJ87	weak coverage: operational resources and maintenance indirectly linked to analyzing behaviour	moderate depth: "High-risk AI systems should be designed in a manner to enable deployers to understand how the AI system works, evaluate its functionality, and comprehend its strengths and limitations" (Recital 72 (2))
BK87	moderate coverage: interpretability only via mechanisms for log collection, storage, and interpretation	strong depth: "a description of the mechanisms included within the high-risk AI system that allows deployers to properly collect, store and interpret the logs..."
BT87	strong coverage: enablement of humans to correctly interpret AI output	weak depth: "to correctly interpret the high-risk AI system's output, taking into account, for example, the interpretation tools and methods available;"
AO88	very strong coverage: unified technical documentation ensuring consistent recording and linking of system artifacts across lifecycle stages	very strong depth: "Having comprehensible information on how high-risk AI systems have been developed and how they perform throughout their lifetime is essential to enable traceability of those systems..." (Recital 71 (1))
AP88	very strong coverage: comprehensive recording of system decisions and lifetime events	very strong depth: "High-risk AI systems shall technically allow for the automatic recording of events (logs) over the lifetime of the system" (Recital 71 (5))
AT88	very strong coverage: recording of system use periods	very strong depth: "Having comprehensible information on how high-risk AI systems have been developed and how they perform throughout their lifetime is essential to enable traceability..." (Recital 71 (1))
AU88	very strong coverage: recording of input validation against reference database	very strong depth: "Having comprehensible information on how high-risk AI systems have been developed and how they perform throughout their lifetime is essential to enable traceability of those systems..." (Recital 71 (1))
AV88	moderate coverage: partial traceability limited to logging of input data	moderate depth: "Having comprehensible information on how high-risk AI systems have been developed and how they perform throughout their lifetime is essential to enable traceability..." (Recital 71 (1))
BB88	strong coverage: linking system performance, accuracy and robustness to traceability	strong depth: "Transparency should be required for high-risk AI systems... accompanied by appropriate information in the form of instructions of use" (Recital 72 (1)(3))
BE88	moderate coverage: recording of performance characteristics including group-specific applicability	moderate depth: "Such information should include the characteristics, capabilities and limitations of performance of the AI system..." (Recital 72 (4))

Cell	Rationale Coverage	Rationale Depth
BH88	moderate coverage: only pre-determined changes at initial conformity assessment	strong depth: "...on the changes that have been pre-determined and assessed for conformity by the provider..." (Recital 72 (5))
DM88	moderate coverage:	linking of data, decisions, and artifacts strong depth: "The extent to which there exists data and processes that can record the system's decisions and link artifacts at different stages"
BA89	strong coverage: provision of system characteristics, capabilities, and limitations in human understandable form	strong depth: "High-risk AI systems should be accompanied by appropriate information in the form of instructions of use...Such information should include the characteristics, capabilities and limitations of performance of the AI system" (Recital 72 (3)(4))
BB89	strong coverage: disclosure of performance characteristics ensuring human-understandable factors	strong depth: "High-risk AI systems should be designed in a manner to enable deployers to understand how the AI system works, evaluate its functionality, and comprehend its strengths and limitations" (Recital 72 (2))
BC89	very strong coverage: disclosure of system characteristics, capabilities and limitations to ensure human understanding	very strong depth: "High-risk AI systems should be designed in a manner to enable deployers to understand how the AI system works, evaluate its functionality, and comprehend its strengths and limitations" (Recital 72 (2))
BD89	moderate coverage: provision of technical characteristics	moderate depth: "High-risk AI systems should be designed in a manner to enable deployers to understand how the AI system works, evaluate its functionality, and comprehend its strengths and limitations" (Recital 72 (2))
BL89	moderate coverage: possibility of human oversight	strong depth: "High-risk AI systems shall be designed and developed in such a way...that they can be effectively overseen by natural persons..."
BS89	moderate coverage: focus on human oversight awareness	moderate depth: "to remain aware of the possible tendency of automatically relying or over-relying on the output produced by a high-risk AI system (automation bias)..."
DA89	strong coverage: documentation and information obligations enable human-understandable insight	moderate depth: "...the information and documentation shall (i) enable providers of AI systems to have a good understanding of the capabilities and limitations of the general-purpose AI model..."