

SYSTEM ARCHITECTURE AND PROCESSING FLOWCHART

| MODEL INPUT | → | FRAMEWORK DETECTION | → | PARAMETER ANALYSIS |
|-----------------------|---|---------------------------|---|-------------------------|
| PyTorch (.pt, .pth) | | Automatic Detection | | Count: <1M = Low Risk |
| TensorFlow (.h5, .pb) | | File Extension + Header | | Count: 1M-100M = Medium |
| ONNX (.onnx) | | Magic Number Check | | Count: 100M-1B = High |
| scikit-learn (.pkl) | | Object Inspection | | Count: >1B = Very High |
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| BIAS DETECTION | → | EU AI ACT COMPLIANCE | → | NETHERLANDS COMPLIANCE |
| Demographic Parity | | Article 5: Prohibited | | BSN Pattern Detection |
| Equalized Odds | | Articles 19-24: High-Risk | | UAVG Validation |
| Calibration Score | | Articles 51-55: GPAI | | AP Authority Check |
| Individual Fairness | | Penalty Calculation | | Regional Multipliers |
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| RISK ASSESSMENT | → | REPORT GENERATION | → | COMPLIANCE CERTIFICATE |
| Overall Score: 0-100 | | PDF/HTML Output | | Digital Verification |
| Risk Classification | | Technical Documentation | | Legal Framework |
| Penalty Estimation | | Remediation Guide | | AP Authority Stamp |

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