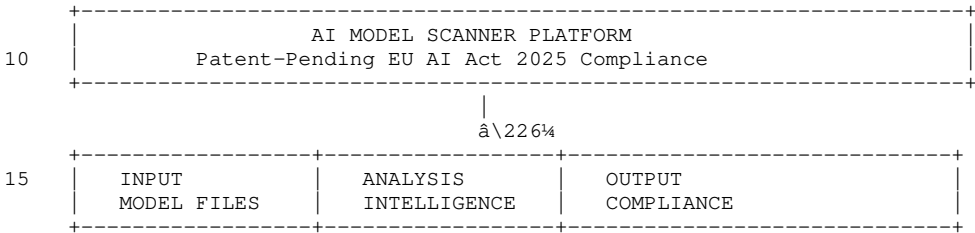
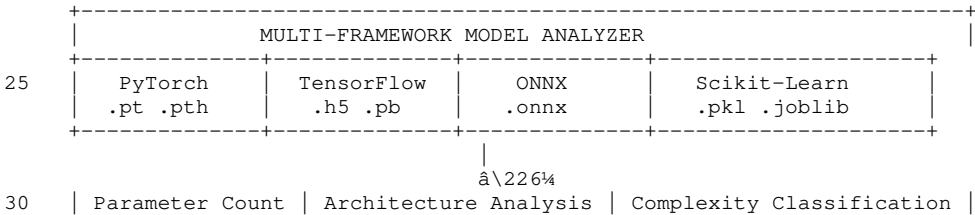


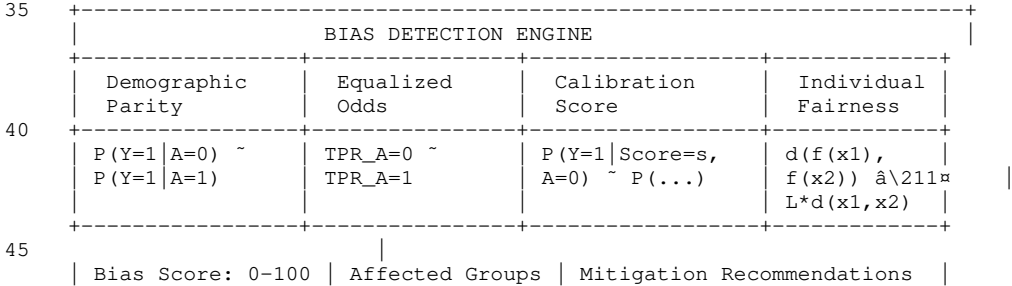
FIGUUR 1: SYSTEEM ARCHITECTUUR OVERZICHT



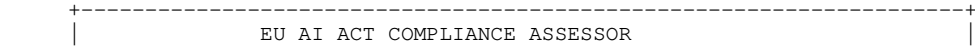
FIGUUR 2: MULTI-FRAMEWORK ANALYZER



FIGUUR 3: BIAS DETECTION ENGINE



FIGUUR 4: EU AI ACT COMPLIANCE ASSESSOR



ARTICLE 5 Prohibited Practices	ARTICLES 19-24 High-Risk Systems	ARTICLES 51-55 General Purpose AI (GPAI)
â\200¢ Social Score	â\200¢ QMS Required	â\200¢ Foundation Model
â\200¢ Manipulation	â\200¢ Tech Docs	â\200¢ >1B Parameters
â\200¢ Subliminal	â\200¢ Record Keeping	â\200¢ Compute Limits
â\200¢ Biometric ID	â\200¢ CE Marking	â\200¢ Adversarial Test
EUR 35M or 7% Global Turnover	EUR 15M or 3% Global Turnover	EUR 15M or 3% Global Turnover

FIGUUR 5: NEDERLANDS SPECIALISATIE

NETHERLANDS SPECIALIZATION			
BSN Detection		UAVG Compliance	
â\200¢ 9-digit BSN		â\200¢ AP Authority	
â\200¢ Checksum Valid		â\200¢ Data Residency	
â\200¢ Privacy Risk		â\200¢ Local Rules	
â\200¢ GDPR Art.9		â\200¢ NL Specific	
â\200¢ EUR 35M Max		â\200¢ 7% Turnover	
â\200¢ Risk Scaling		â\200¢ Regional Multi	

80 +-----+-----+-----+-----+

FIGUUR 6: MATHEMATISCHE FORMULES (GECORRIGEERD)

85 BIAS DETECTION ALGORITHMS:

Formule 1 - Demographic Parity:

$$P(Y=1|A=0) \approx P(Y=1|A=1)$$

90 Formule 2 - Equalized Odds:

$$TPR_{A=0} \approx TPR_{A=1} \text{ EN } FPR_{A=0} \approx FPR_{A=1}$$

Formule 3 - Calibration Score:

$$P(Y=1|Score=s, A=0) \approx P(Y=1|Score=s, A=1)$$

95 Formule 4 - Individual Fairness:

$$d(f(x_1), f(x_2)) \approx L * d(x_1, x_2)$$

BSN CHECKSUM VALIDATIE (GECORRIGEERD - Officieel Nederlands Algoritme):

100

$$\begin{aligned} \text{checksum} = & (\text{digit}_0 \text{ \textasciitilde{227} } 9) + (\text{digit}_1 \text{ \textasciitilde{227} } 8) + (\text{digit}_2 \text{ \textasciitilde{227} } 7) + \\ & (\text{digit}_3 \text{ \textasciitilde{227} } 6) + (\text{digit}_4 \text{ \textasciitilde{227} } 5) + (\text{digit}_5 \text{ \textasciitilde{227} } 4) + \\ & (\text{digit}_6 \text{ \textasciitilde{227} } 3) + (\text{digit}_7 \text{ \textasciitilde{227} } 2) - (\text{digit}_8 \text{ \textasciitilde{227} } 1) \end{aligned}$$

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105 BSN is geldig als: checksum mod 11 == 0

Voorbeeld: BSN 111222333

$$\begin{aligned} = & (1 \text{ \textasciitilde{227} } 9) + (1 \text{ \textasciitilde{227} } 8) + (1 \text{ \textasciitilde{227} } 7) + (2 \text{ \textasciitilde{227} } 6) + (2 \text{ \textasciitilde{227} } 5) + (2 \text{ \textasciitilde{227} } 4) + (3 \text{ \textasciitilde{227} } 3) + (3 \text{ \textasciitilde{227} } 2) - \\ & (3 \text{ \textasciitilde{227} } 1) \end{aligned}$$

$$= 9 + 8 + 7 + 12 + 10 + 8 + 9 + 6 - 3$$

$$110 = 66 \text{ mod } 11 = 0 \text{ \textasciitilde{234} } 223 \text{ GELDIG}$$

PENALTY CALCULATION:

$$\begin{aligned} 115 \text{ penalty} = & \text{MAX}(\\ & \text{fixed_amount \textasciitilde{227} regional_multiplier,} \\ & \text{revenue \textasciitilde{227} percentage \textasciitilde{227} regional_multiplier} \\ &) \end{aligned}$$

120 waarbij:

fixed_amount = EUR 35,000,000 (Artikel 5) of EUR 15,000,000 (Artikelen 19-24)

percentage = 7% (Artikel 5) of 3% (Artikelen 19-24)

regional_multiplier = Nederland-specifieke compliance factor

125

FIGUUR 7: SYSTEEM FLOW DIAGRAM

INPUT

|

+--> Multi-Framework Analysis

130

|

+--> Bias Detection

|

+--> EU AI Act Assessment

|

+--> Netherlands Specialization

135

|

+--> Real-time Monitoring

|

+--> Compliance Reports

140

FIGUUR 8: PROCESSING PIPELINE

+-----+-----+-----+-----+

145

STEP 1: Model Upload

\200¢ Framework Detection (PyTorch/TensorFlow/ONNX/scikit-learn)

\200¢ File Validation (.pt, .pth, .h5, .pb, .onnx, .pkl, .joblib)

+-----+-----+-----+-----+

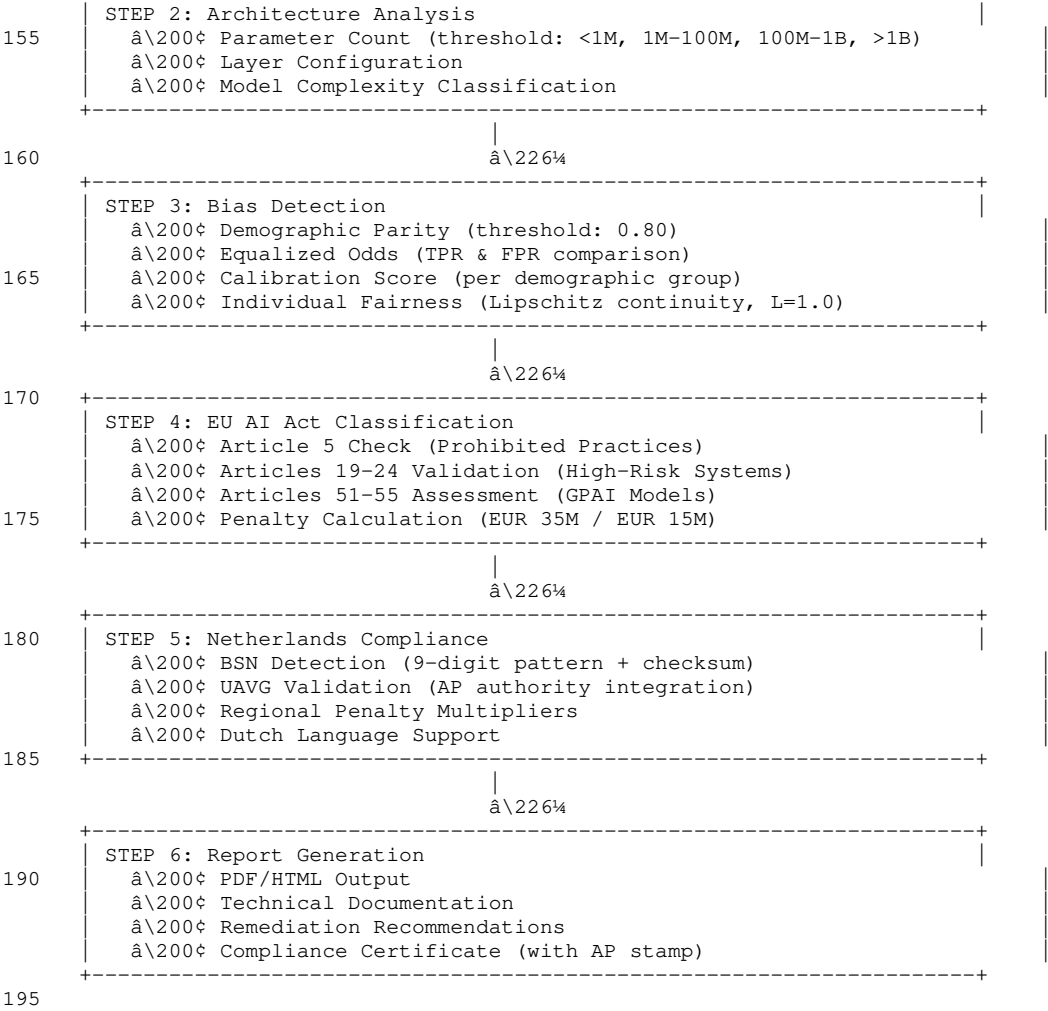
|

150

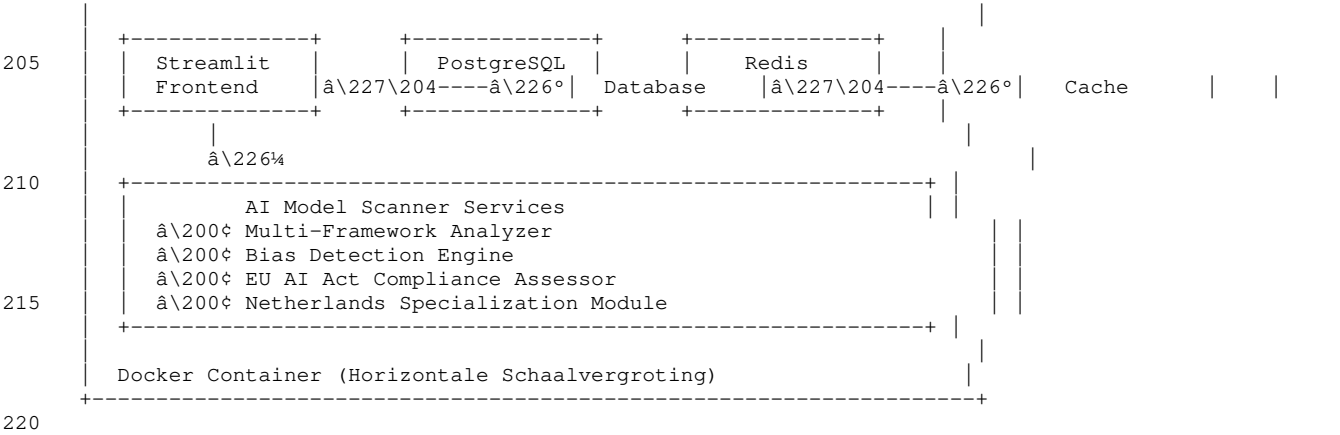
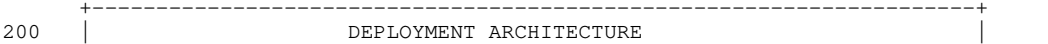
\226¼

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+-----+-----+-----+-----+



FIGUUR 9: DEPLOYMENT ARCHITECTUUR



FIGUUR 10: COMPETITIVE ADVANTAGE MATRIX

FEATURE	DataGuardian	OneTrust	TrustArc	IBM	
Automated Bias Multi-Framework	â\234\223		â\234\227	â\234\227	â\232
BSN Detection	â\234\223		â\234\227	â\234\227	â\232
EU AI Act 2025	â\234\223		â\232	â\232	â\232
Cost (Annual)	â\202~2.5K-25K	â\202~50K-500K	â\202~75K-400K	â\202~100K+	
Cost Savings	BASELINE	95%	96%	97%	

235 Legend: â\234\223 = Full Support, â\232 = Partial Support, â\234\227 = No Support

FIGUUR 11: VALUE PROPOSITION

240	+-----+ PATENT VALUE PROPOSITION +-----+		
245	Market Opportunity:	â\202~447M (EU-wide AI compliance market)	
	Target Market:	1.8M EU companies using AI	
	Netherlands Market:	â\202~23M (150,000 companies)	
250	Penalty Prevention:	Up to EUR 35M per violation	
	Cost Savings:	95% vs OneTrust/TrustArc	
	Processing Speed:	<30s (vs hours manually)	

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255	Accuracy:	95%+ bias, 98%+ compliance	
	First-Mover Advantage:	EU AI Act enforced Feb 2025	
	Patent Protection:	20 years (until 2045)	
	Patent Value:	â\202~1M - â\202~2.5M	

BELANGRIJKE TECHNISCHE CORRECTIES

BSN FORMULE CORRECTIE:

OUD (FOUT):
 checksum = ∑(digit_i ∆\227 (9-i)) mod 11 â\234\227 INCORRECT

NIEUW (CORRECT):
 checksum = (digit_0 ∆\227 9) + (digit_1 ∆\227 8) + ... - (digit_8 ∆\227 1) â\234\223 CORRECT

De laatste digit (digit_8) gebruikt factor 1, NIET factor (9-8)=1 via formule.
 Dit is het officiële Nederlandse BSN 11-proef algoritme.

EINDE TEKENINGEN EN FORMULES