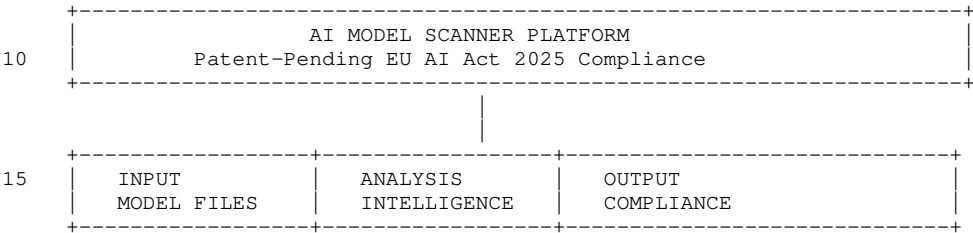
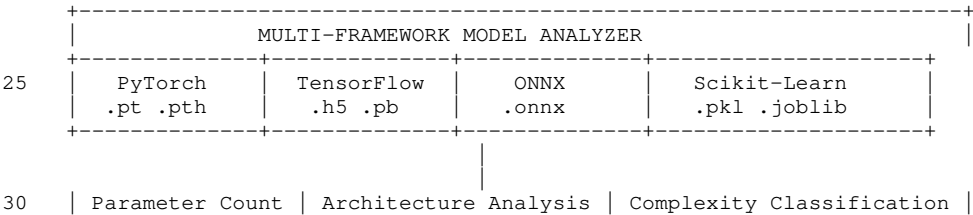


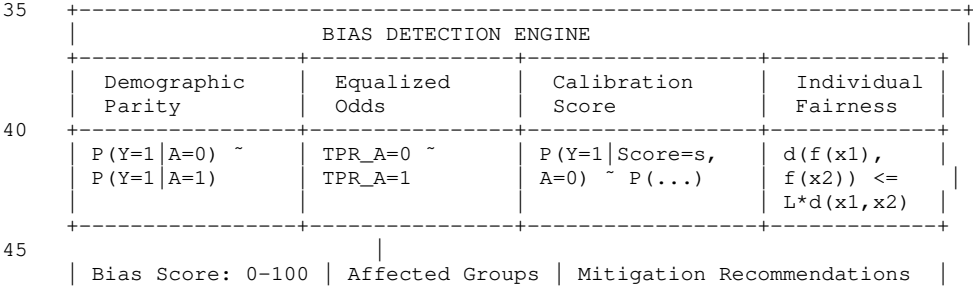
5 FIGUUR 1: SYSTEEM ARCHITECTUUR OVERZICHT



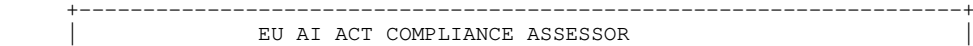
20 FIGUUR 2: MULTI-FRAMEWORK ANALYZER



FIGUUR 3: BIAS DETECTION ENGINE



FIGUUR 4: EU AI ACT COMPLIANCE ASSESSOR



55

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

65

FIGUUR 5: NEDERLANDS SPECIALISATIE

70

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

75

```

80  +-----+-----+-----+
FIGUUR 6: MATHEMATISCHE FORMULES (GECORRIGEERD)
85  BIAS DETECTION ALGORITHMS:
Formule 1 - Demographic Parity:
     $P(Y=1|A=0) \sim P(Y=1|A=1)$ 
90  Formule 2 - Equalized Odds:
     $TPR_{A=0} \sim TPR_{A=1} \text{ EN } FPR_{A=0} \sim FPR_{A=1}$ 
Formule 3 - Calibration Score:
     $P(Y=1|Score=s, A=0) \sim P(Y=1|Score=s, A=1)$ 
95  Formule 4 - Individual Fairness:
     $d(f(x_1), f(x_2)) \leq L \cdot d(x_1, x_2)$ 
BSN CHECKSUM VALIDATIE (GECORRIGEERD - Officieel Nederlands Algoritme):
100 checksum = (digit_0 x 9) + (digit_1 x 8) + (digit_2 x 7) +
    (digit_3 x 6) + (digit_4 x 5) + (digit_5 x 4) +
    (digit_6 x 3) + (digit_7 x 2) - (digit_8 x 1)
=====
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```

```

105 BSN is geldig als: checksum mod 11 == 0
Voorbeeld: BSN 111222333
    = (1x9) + (1x8) + (1x7) + (2x6) + (2x5) + (2x4) + (3x3) + (3x2) - (3x1)
    = 9 + 8 + 7 + 12 + 10 + 8 + 9 + 6 - 3
110 = 66 mod 11 = 0 Y GELDIG
PENALTY CALCULATION:
115 penalty = MAX(
    fixed_amount x regional_multiplier,
    revenue x percentage x regional_multiplier
)
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

```

FIGUUR 7: SYSTEEM FLOW DIAGRAM

```

INPUT
|
+--> Multi-Framework Analysis
|
130 +--> Bias Detection
|
+--> EU AI Act Assessment
|
135 +--> Netherlands Specialization
|
+--> Real-time Monitoring
|
140 +--> Compliance Reports

```

FIGUUR 8: PROCESSING PIPELINE

```

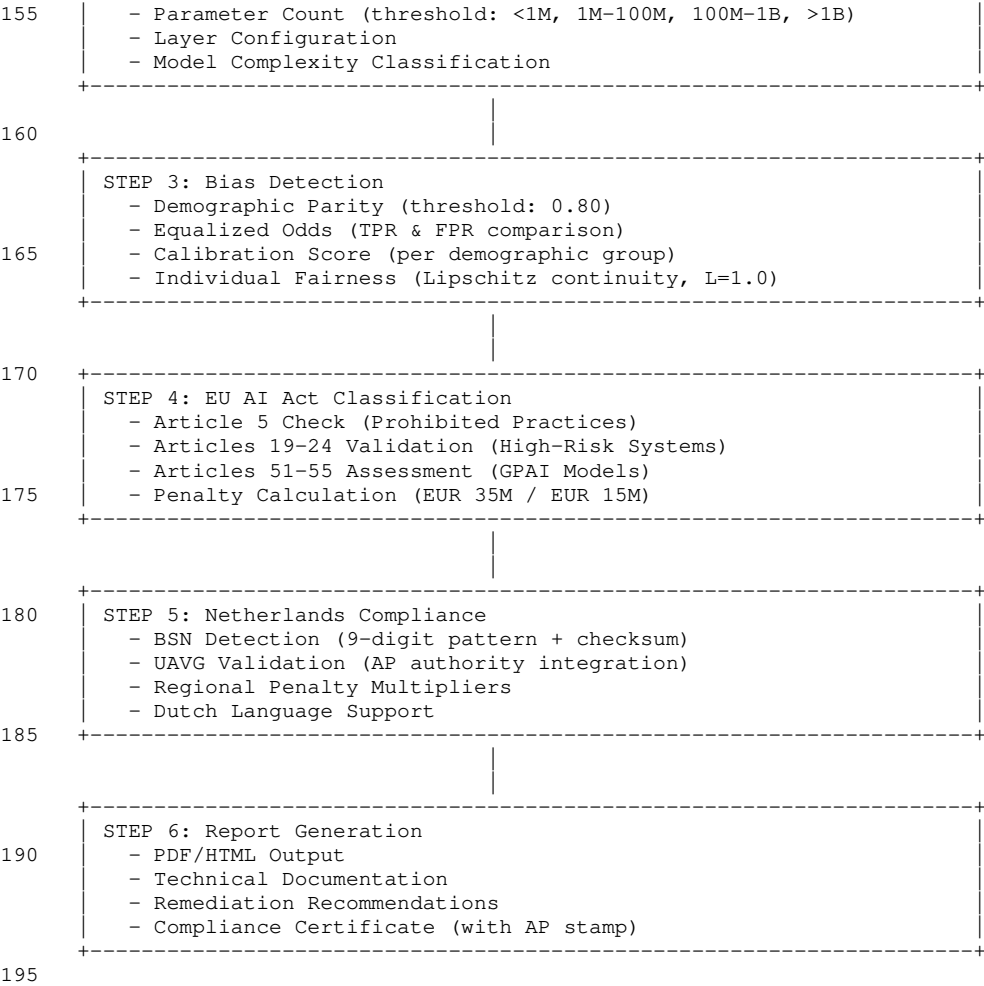
145 +-----+
| STEP 1: Model Upload |
| - Framework Detection (PyTorch/TensorFlow/ONNX/scikit-learn) |
| - File Validation (.pt, .pth, .h5, .pb, .onnx, .pkl, .joblib) |
+-----+
|
150

```

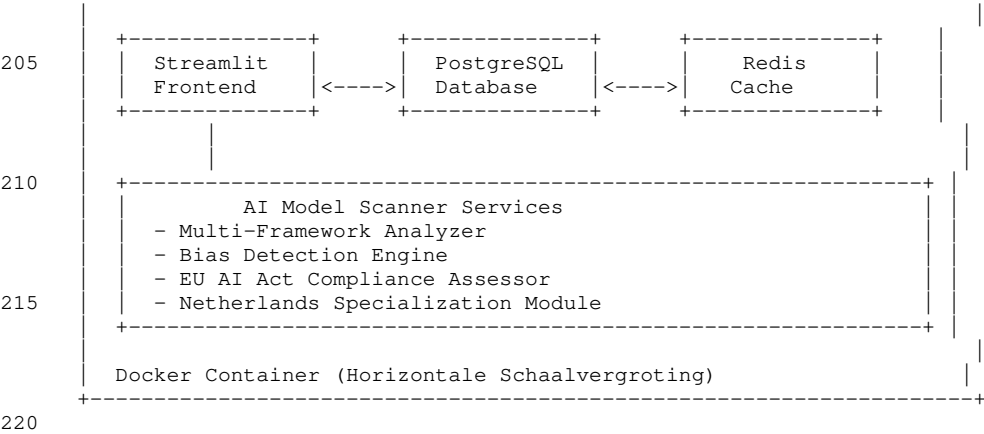
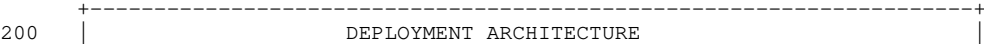
```

+-----+
| STEP 2: Architecture Analysis |
+-----+

```



FIGUUR 9: DEPLOYMENT ARCHITECTUUR



FIGUUR 10: COMPETITIVE ADVANTAGE MATRIX

FEATURE	DataGuardian	Systeem A	Systeem B	Systeem C
Automated Bias	Y	N	N	W
Multi-Framework	Y	N	N	W
BSN Detection	Y	N	N	N
EU AI Act 2025	Y	W	W	W
Cost (Annual)	EUR 2.5K-25K	EUR 50K-500K	EUR 75K-400K	EUR 100K+
Cost Savings	BASELINE	95%	96%	97%

Legend: Y = Full Support, W = Partial Support, N = No Support

FIGUUR 11: VALUE PROPOSITION

240	+-----+ PATENT VALUE PROPOSITION +-----+		
245	Market Opportunity:	EUR 447M (EU-wide AI compliance market)	
	Target Market:	1.8M EU companies using AI	
	Netherlands Market:	EUR 23M (150,000 companies)	
	Penalty Prevention:	Up to EUR 35M per violation	
250	Cost Savings:	95-97% vs commerciële oplossingen	
	Processing Speed:	<30s (vs hours manually)	

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	Accuracy:	95%+ bias, 98%+ compliance	
255	First-Mover Advantage:	EU AI Act enforced Feb 2025	
	Patent Protection:	20 years (until 2045)	
	Patent Value:	EUR 1M - EUR 2.5M	
260	+-----+		

=====

BELANGRIJKE TECHNISCHE CORRECTIES

=====

265 BSN FORMULE CORRECTIE:

270 OUD (FOUT):
checksum = SUM(digit_i x (9-i)) mod 11 N INCORRECT

NIEUW (CORRECT):
checksum = (digit_0 x 9) + (digit_1 x 8) + ... - (digit_8 x 1) Y CORRECT

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

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EINDE TEKENINGEN EN FORMULES

=====