

# WatiqAI: Project Summary

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## 1. Executive Summary

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WatiqAI (وثيق = “Document/Authentic” in Arabic) is an AI-powered document intelligence platform designed to combat identity and document fraud during banking KYC (Know Your Customer) onboarding processes in Morocco. Leveraging advanced AI and machine learning, WatiqAI provides real-time detection of forged, altered, or inconsistent identity documents, significantly enhancing security, ensuring regulatory compliance, and reducing operational costs for financial institutions.

## 2. Problem Statement

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Moroccan banks face a critical and growing challenge with document fraud, leading to an estimated **50 million MAD in annual losses**. The current manual KYC verification processes are slow (15-30 minutes per customer), expensive (50-100 MAD per verification), and susceptible to human error. With the rapid increase in digital account openings (250%+ since COVID-19) and a young demographic demanding instant services, the need for an efficient, secure, and compliant automated solution is paramount.

## 3. Solution: WatiqAI

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WatiqAI offers a comprehensive, localized solution built specifically for the Moroccan context. It integrates multiple AI technologies to perform:

- **Multi-Document Cross-Validation:** Analyzes and cross-references data across various Moroccan identity documents (CIN, passports, utility bills) to flag inconsistencies.
- **Physical Tampering Detection:** Identifies altered photos, modified text fields, fake security seals, and document reproduction attempts.

- **Moroccan Document Expertise:** Pre-trained on all Moroccan ID variations (CNIE, old CIN, passports) and utility bills (LYDEC, REDAL, ONEE).
- **Biometric Face Matching:** Compares selfie photos against ID photos with liveness detection, handling local variations (glasses, beard, hijab).
- **Linguistic Analysis:** Processes Arabic, French, Darija transliterations, and Tamazight, understanding Moroccan naming conventions and address formats.
- **Explainable Risk Scoring:** Provides a 0-100 fraud risk score with detailed explanations and generates compliance reports for auditors.

## 4. Technology Stack

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WatiqAI utilizes a robust and proven technology stack:

- **Computer Vision:** YOLOv8, EfficientNet
- **OCR:** Tesseract, PaddleOCR
- **Face Recognition:** FaceNet, ArcFace
- **NLP:** AraBERT, CamemBERT
- **Fraud Detection:** Isolation Forest, AutoEncoders
- **Integration:** REST API over HTTPS with OAuth 2.0, JSON request/response, SDK for iOS/Android.

## 5. Market Opportunity & Impact

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- **Market Size:** The Moroccan market alone sees over 200,000 monthly KYC verifications across 19 banks and 35 microfinance institutions. WatiqAI is scalable to insurance, telecom, and government sectors.
- **ROI:** Projected 70% reduction in manual verification costs, processing time reduced to <60 seconds, and significant fraud prevention (each prevented fraud saves ~15,000 MAD).
- **Competitive Advantage:** First-mover in comprehensive, Moroccan-specific KYC fraud detection, proprietary data on local fraud patterns, and strong regulatory alignment.

## 6. Team & Feasibility

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The core team comprises 5 experts in banking compliance, ML engineering, computer vision, Arabic NLP, and backend development. A 3-month MVP roadmap is clearly defined, targeting 85%+ fraud detection and % false positives.

## 7. Regulatory Compliance

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WatiqAI is designed to comply with Bank Al-Maghrib Circular 42/G/2020 KYC directives, Morocco's Law 09-08 on data protection, ANRT guidelines for data localization, and FATF recommendations for AML/CFT.

## 8. Vision

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To become the leading AI-powered identity verification and fraud prevention platform in Morocco and across the Maghreb region, expanding beyond banking to other sectors requiring robust digital identity solutions.