REVOLUTIONIZING THE INDUSTRIAL MAINTENANCE WITH IOT & AI

PREDICTA INDUSTRY

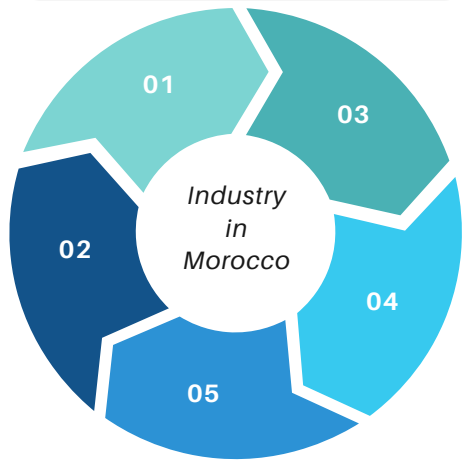
Centrale CASABLANCA

Context & Motivation

01
The sector remains predominantly artisanal with "only 30% of Moroccan factories having transitioned to 4.0 technologies," as asserted by Moulay Hafid ElAlami.

02
In an era of widespread digitization, Morocco's industry lags significantly behind.

03
The Industrial Acceleration Plan set for 2020 did not meet its objectives: it aimed to elevate the industry's contribution to the GDP from 14% to 23% and to generate half a million job opportunities.



04
The Moroccan industrial sector enjoys political stability, progressive economic and social developments, and a pool of skilled human capital.

05
Morocco's Industry 4.0 Plan aims to generate revenues surpassing 30 billion dirhams by the year 2025.

06
Industrial enterprises are progressively embracing AI innovations, with the sector's average annual investment rate standing at 63%.

Problematic

How can predictive maintenance be strategically integrated into Morocco's industrial sector to reduce economic losses and operational disruptions caused by equipment malfunctions and anomalies? Additionally, how can accurate machinery lifespan prediction be used to enhance machine efficiency, minimize interruptions, and increase production output?

Business model canvas

KEY PARTNERS
- Local industry associations like ONEE
- CENTRALE CASABLANCA
- Sensor manufacturers

KEY ACTIVITIES
- Sensor installation
- Data collection and analysis
- Dashboard showing performance of machines in real time
- Alerting system in case of detection of anomaly
- Technical Support and Maintenance

VALUE PROPOSITIONS
- Fast and accurate sensors for real-time data capture.
- Intuitive dashboard for continuous monitoring.
- Advanced alert system for anomaly detection with solution or recommandation for action to take.
- ERP integration for operational planning.

CUSTOMER RELATIONSHIP
- Technical support
- Training for factory staff on system usage
- Privacy and trust

CUSTOMER SEGMENTS
B2B : Industrial factories in Morocco seeking efficient maintenance solutions.

KEY RESOURCES
- Software Developers.
- Sensors and equipment.
- Expert team for installation and maintenance
- R&D team

CHANNELS
- Direct sales to factories
- Online marketing
- Industry trade shows
- Partnerships with industrial equipment suppliers.

COST STRUCTURE
R&D costs, technician salaries, marketing expenses, software development, and maintenance costs.

REVENUE STREAM
Subscription-based model (monthly/annual), charges for initial setup and installation, and potential premium support services.

Methodology

01 Early study of the project
Assimilating Zen Networks' data exploitation technology

02 New field for application
Identifying Industry 4.0 as our target and predictive maintenance as a vital industry need

03 Conceptualization of PredictA
Establishing PredictA's market approach and value proposition

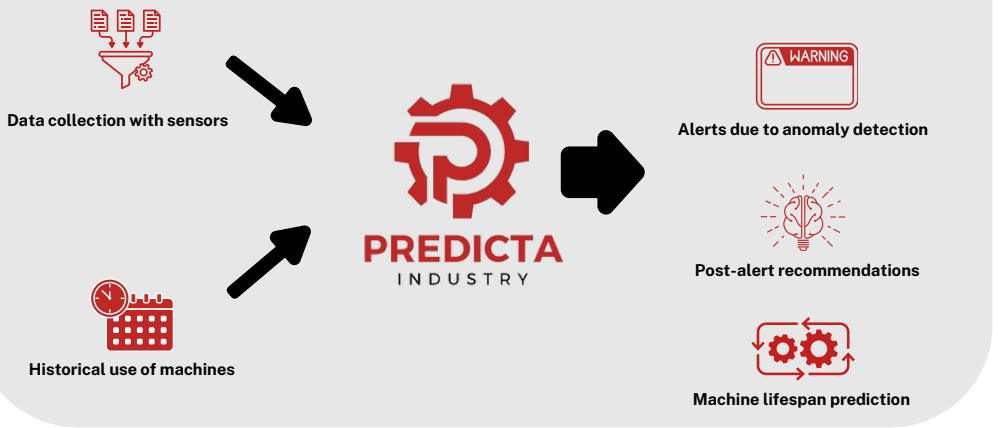
04 Client Acquisition and Validation
Securing ONEE as the inaugural client to validate the business model

05 Improvement
Developping a strategy for market penetration and scalability

Solution

PredictA is an AI-integrated predictive maintenance solution designed to optimize industrial operations by providing real-time monitoring, advanced alerting, and actionable recommendations to prevent machinery downtime.

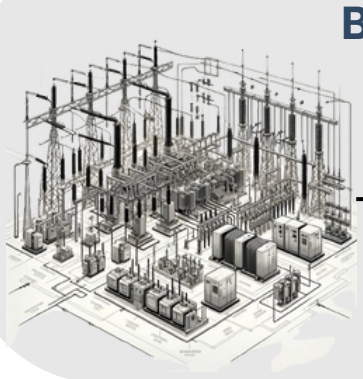
Architecture



Added Values

Business Targets:

Office National de l'Electricité x PREDICTA INDUSTRY



PREDICTA INDUSTRY

- Use specialized sensors like pH meters, conductivity meters, and absorbance meters
- Detecting early signs of power transformers' dielectric oil degradation
- Monitor the real-time status of power transformers
- Alert and give recommendations

Results: -10% to -40% of maintenance costs

Team

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Bibliographie

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