

# AI Act Compliance Report

Sleep Cycle Tracker

# Introduction

This report outlines the obligations and compliance measures necessary for the "Sleep Cycle Tracker" system to adhere to the proposed EU AI Act. The analysis focuses on ensuring the safety, transparency, and accountability of the AI system, given its impact on user health and data privacy.

## System Overview

The Sleep Cycle Tracker system utilizes AI to monitor, analyze, and provide personalized sleep recommendations. The system gathers user data via wearable devices or mobile apps, with functionalities that include:

- Monitoring user sleep patterns in real-time.
- Generating insights and recommendations for improving sleep quality.
- Predicting potential health risks related to poor sleep patterns.

## Compliance Obligations

### Data Governance and Quality

The Sleep Cycle Tracker must ensure:

- Data Quality: Accurate, unbiased, and representative data collection for AI training and operation.
- Data Privacy: Full compliance with GDPR, guaranteeing secure data processing and user consent.

### Risk Management

- Risk Assessment: Comprehensive assessment to identify and mitigate risks, particularly concerning health recommendations.
- Mitigation Strategies: Effective measures to minimize identified risks, ensuring system reliability and user safety.

### Transparency and User Information

- Explainability: Provide users with comprehensible information about AI operations and potential limitations.
- User Rights: Empower users with control over their data, including the right to access, modify, or delete their data.

## Human Oversight

Human oversight mechanisms must be established to ensure critical health-related decisions or recommendations are subject to human intervention when necessary.

## Technical Documentation

Maintain detailed technical documentation, including data sources, training methods, and testing protocols, to ensure compliance transparency.

## Post-Market Monitoring

Develop a monitoring and incident reporting framework to track the system's real-world performance, addressing potential issues promptly.

## Conclusions

Compliance with the EU AI Act for the Sleep Cycle Tracker system is critical for protecting user health and privacy. This report outlines the measures necessary to ensure the system operates ethically and safely.