Tigernix
We are users too

Tigernix Wastewater Intelligence Software Suite

Smart, Industry 4.0-Driven Digital Platform for Wastewater Decision-Makers

Introduction

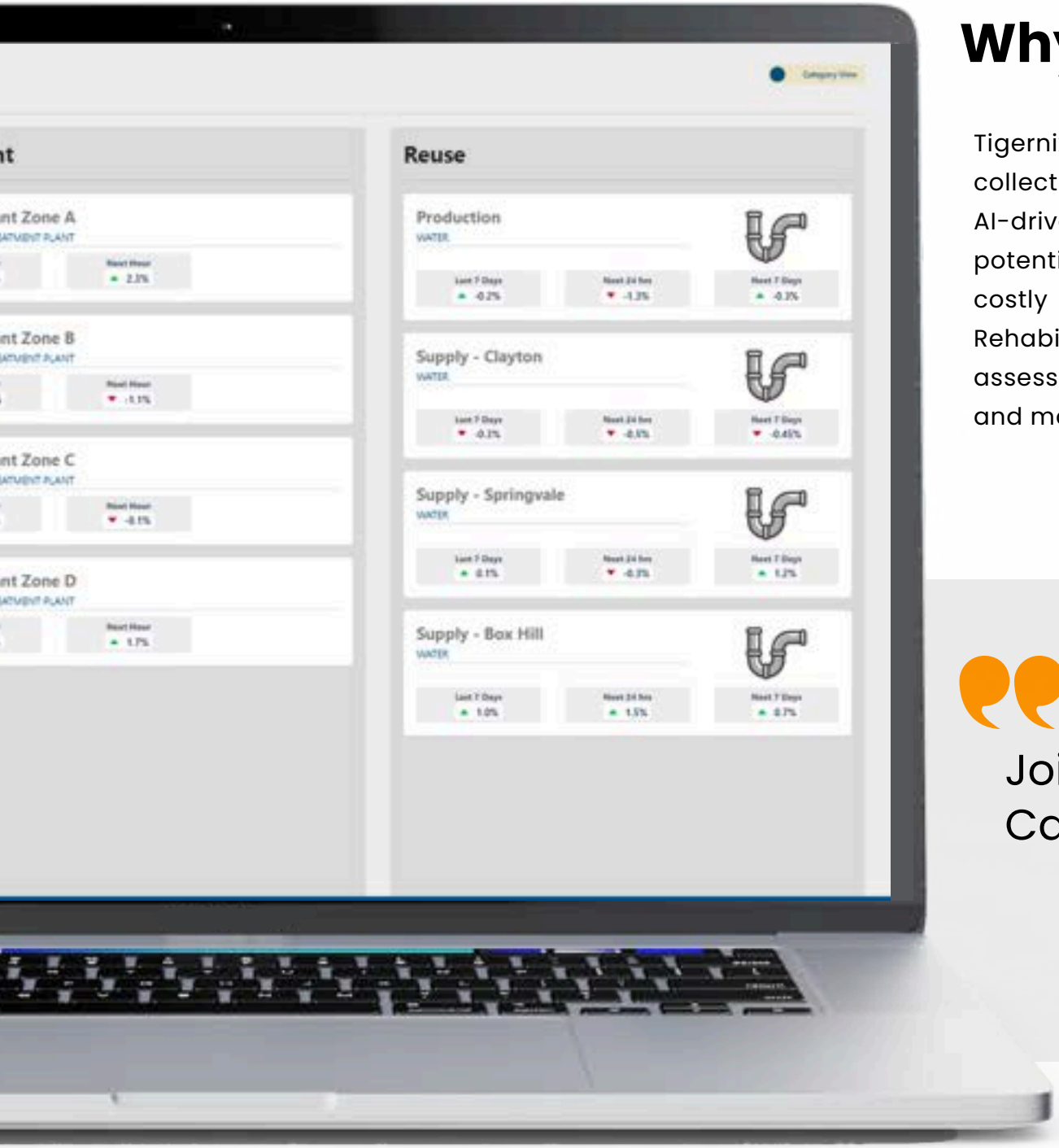
A Comprehensive Digital Ecosystem for Wastewater Intelligence

Tigernix Wastewater Intelligence Software Suite is a smart, well-curated, and feature-rich platform designed specifically for wastewater decision-makers. This digital solution addresses critical sector challenges such as uncontrollable financial and energy expenditures, fluctuating service levels, and evolving climatic impacts. By consolidating data and delivering actionable insights, Tigernix empowers utilities to achieve cost-efficient, energy-saving, and risk-free wastewater management through a unified interface.

> Smart Wastewater Collection: Maintenance, Prediction, and Pipe Rehabilitation
>
> @ Tigernix Smart Wastewater Solutions

Industry 4.0 Capabilities We Offer

- GIS
- IoT
- AR & VR
- Predictive & Prescriptive Analytics
- 5G
- Cloud Computing
- Robotic Automation
- Digital Twin
- Simulation
- Big Data



Why Choose Tigernix?

Tigernix enables utilities to optimise wastewater collection systems by leveraging real-time analytics and AI-driven predictive maintenance. The platform identifies potential pipe failures before they occur, minimising costly emergency repairs and operational downtime. Rehabilitation projects are prioritised based on risk assessments, ensuring efficient allocation of resources and maximising infrastructure lifespan.

> Join Us to Level Up Your Digital Capacities to 200%

Robust Features of Tigernix Wastewater Intelligence Software Suite

Unified Command for Wastewater Operations

- Centralises real-time data on one dashboard.
- Streamlines communication across all departments.
- Enables rapid incident response and continuity.

Predictive Asset Health and Maintenance

- Uses AI to forecast equipment failures.
- Schedules maintenance by actual asset condition.
- Reduces emergency repairs and extends lifespan.

Dynamic Compliance and Regulatory Assurance

- Automates regulatory monitoring and report generation.
- Sends real-time alerts for compliance breaches.
- Simplifies audits and reduces paperwork.

Energy and Resource Efficiency Optimisation

- Identifies high-energy processes for improvement.
- Tracks resource use to minimise waste.
- Supports renewable and resource recovery.

Resilient Infrastructure for Climate Adaptation

- Models climate impacts on wastewater systems.
- Simulates emergencies for proactive upgrades.
- Enhances resilience with early warning strategies.

Transparent Performance and Stakeholder Engagement

- Provides actionable insights for all stakeholders.
- Visualises performance indicators and trends.
- Fosters trust through transparent reporting.

Unified Data Command and Control

Predictive Analytics and Digital Twin

Real-Time Compliance and Environmental Monitoring

Executive-Ready Insights and Policy Visualisation

System Capabilities

AI-Driven Failure Predictions

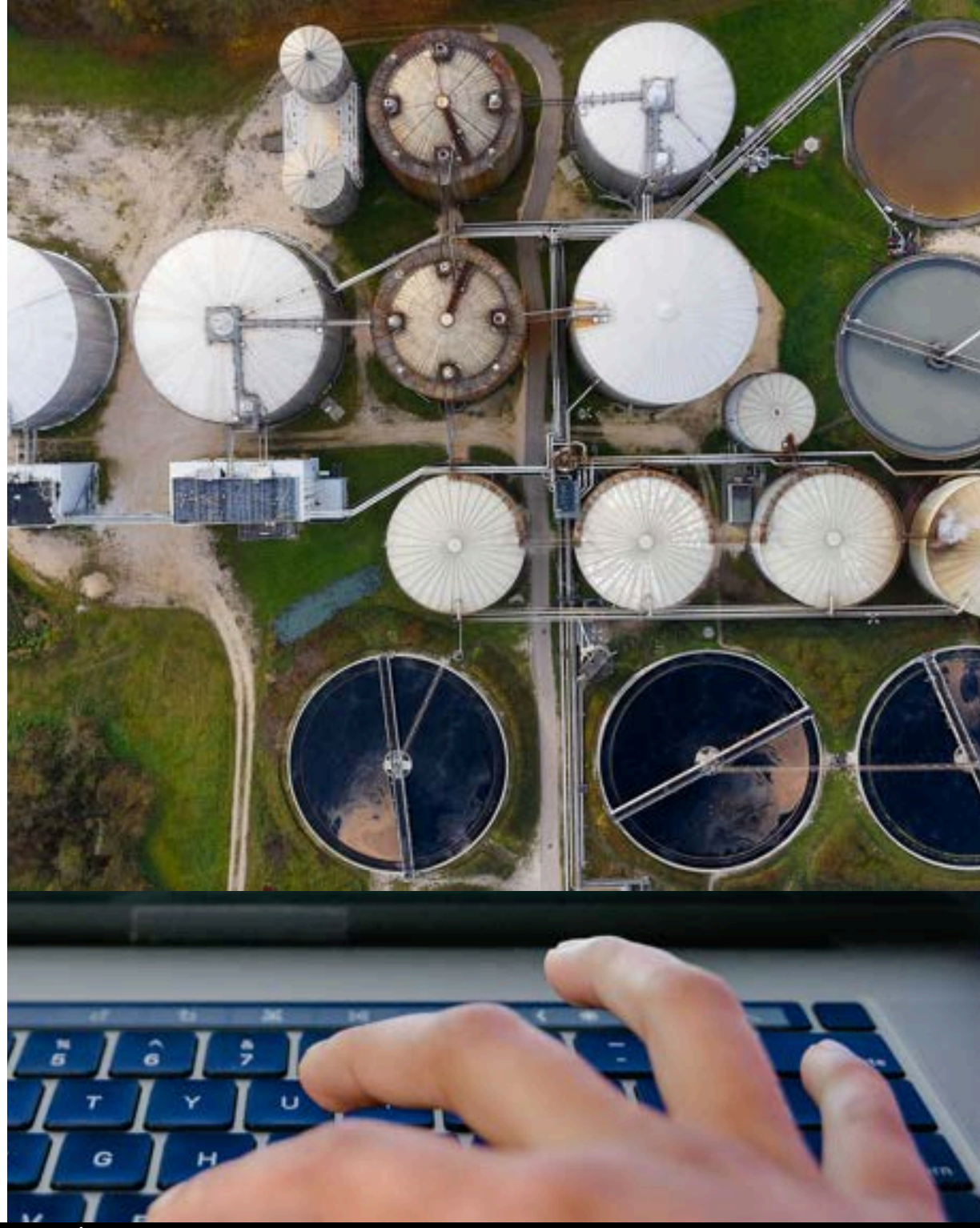
Leverage advanced machine learning algorithms to forecast equipment and infrastructure failures before they occur, enabling proactive maintenance, reducing costly downtime, and extending asset life across the entire wastewater network.

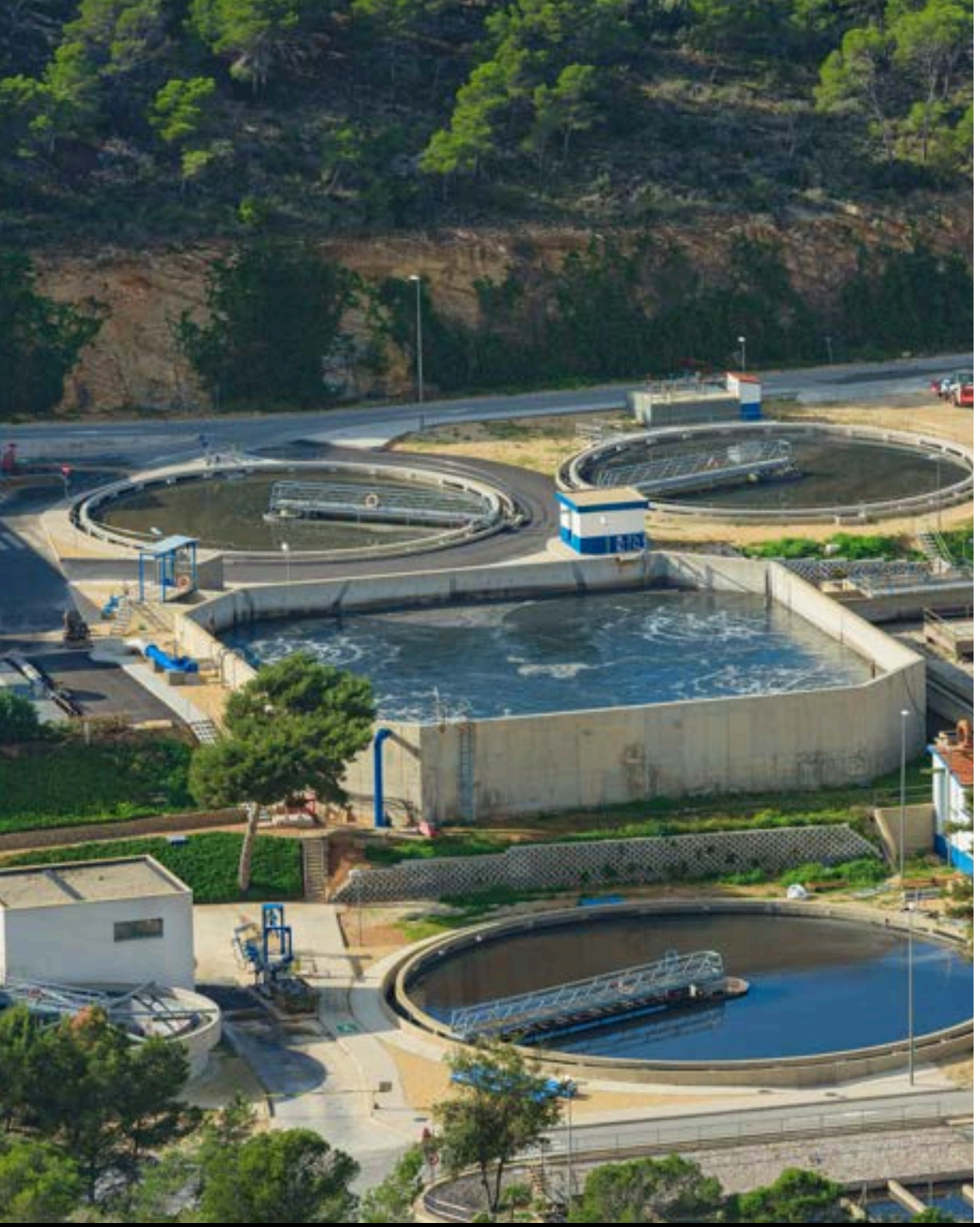
Automated Contamination Alerts

Continuously monitor water quality using real-time sensor data and AI analytics, instantly alerting operators to contamination events so corrective actions can be taken before public health or environmental standards are compromised.

Centralised Cloud Command Hub

Integrate all operational data-asset telemetry, process analytics, and compliance metrics-into a single, secure cloud dashboard, providing a unified view for decision-makers and enabling seamless collaboration across multiple sites.





System Capabilities

Compliance Auto-Reporting

Automatically generate and submit regulatory compliance reports, using real-time monitoring and historical data, to streamline documentation, reduce administrative workload, and ensure adherence to evolving environmental and safety regulations.

Digital Twin Simulation

Create virtual replicas of physical assets and processes to simulate scenarios, assess risks, and optimise operations, empowering utilities to make informed decisions on investments, maintenance, and emergency response.

Energy & Cost Optimisation Engine

Analyse operational data to identify energy-intensive processes and inefficiencies, recommending targeted improvements that lower utility expenses, reduce carbon emissions, and support sustainable, cost-effective wastewater management.

System Capabilities

Live IoT Sensor Dashboards

Visualise continuous data streams from distributed IoT sensors, providing real-time insights into asset health, flow rates, water quality, and system performance, enabling instant response to anomalies or operational changes.

Pollution Traceability Mapping

Utilise geospatial analytics to trace pollution sources and pathways, allowing rapid identification and mitigation of contamination events, and supporting compliance with environmental standards and public health protection.

Prioritised Asset Maintenance

Apply risk-based algorithms to schedule maintenance and rehabilitation, focusing resources on the most critical assets, reducing emergency repairs, and optimising the long-term performance and reliability of wastewater infrastructure.

System Capabilities

Unified Wastewater System Dashboard

Present a holistic, real-time overview of the entire wastewater lifecycle, including collection, pumping, treatment, and reuse-enabling integrated management and data-driven decision-making across all operational domains.

Predictive Inflow and Infiltration Analytics

Detect and forecast abnormal inflow and infiltration events using historical and real-time data, helping utilities minimise excess water entry, reduce treatment costs, and prevent system overloads during storms.

Executive Crisis Command Synchronisation

Enable seamless coordination between national, regional, and municipal leaders during emergencies, providing a real-time digital platform for data sharing, crisis response, and resource allocation to ensure rapid, unified action.

Key Challenges & Solutions

Wastewater data is often scattered across collection, pumping, treatment, and reuse, causing inefficiencies. Tigernix's unified 4-pillar platform consolidates all operational data into one interface, enabling seamless monitoring, integrated analytics, and coordinated, data-driven decision-making.

Fragmented Operations and Data Silos

Wastewater data and processes are often isolated across collection, pumping, treatment, and reuse, leading to inefficiencies and missed insights. The 4-pillar structure unifies all operational data-collection, pumping, treatment, and reuse-into a single platform, enabling seamless monitoring, cross-domain analytics, and coordinated decision-making for holistic system optimisation.

Inconsistent Asset Performance and Unplanned Downtime

Traditional maintenance relies on fixed schedules, resulting in unexpected failures, unnecessary replacements, and higher costs. By integrating predictive maintenance and AI-driven monitoring across all pillars, Tigernix anticipates failures, prioritises repairs, and extends asset life, drastically reducing unplanned outages and maintenance expenses system-wide.

Key Challenges & Solutions

Tigernix automates compliance tracking and reporting with real-time data and AI, ensuring every process meets the latest standards, simplifying audits, and reducing compliance risks across the entire operation. Additionally, . Tigernix uses AI and NLP to transform complex metrics into plain-language, visually rich reports, empowering policymakers.

Regulatory Compliance Complexity

Navigating diverse and evolving regulations across multiple processes is time-consuming and error-prone, risking non-compliance and penalties. Industry 4.0 digital tech correlation automates compliance tracking and reporting across all pillars, using real-time data and AI to ensure every process meets the latest standards, simplifying audits and reducing compliance risks.

Lack of Actionable Insights for Policy and Investment

Decision-makers struggle to translate technical data into clear, actionable strategies for governance, budgeting, and public communication. Tigernix decodes complex data into plain-language, visually rich reports using AI and NLP, empowering policymakers with transparent insights for informed investment and strategic planning.

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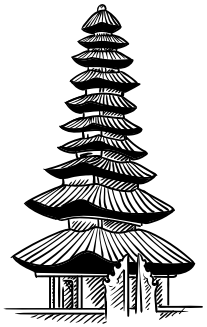

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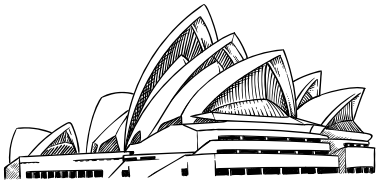

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