



**Your Local  
Smart Technology  
Developer**



## Locally Engineered. Globally Ambitious

Arnowa is an Australian innovator delivering end-to-end smart technology solutions tailored for the local market. From concept to deployment, we empower organisations with the tools, insights, and digital leadership to outperform global standards.

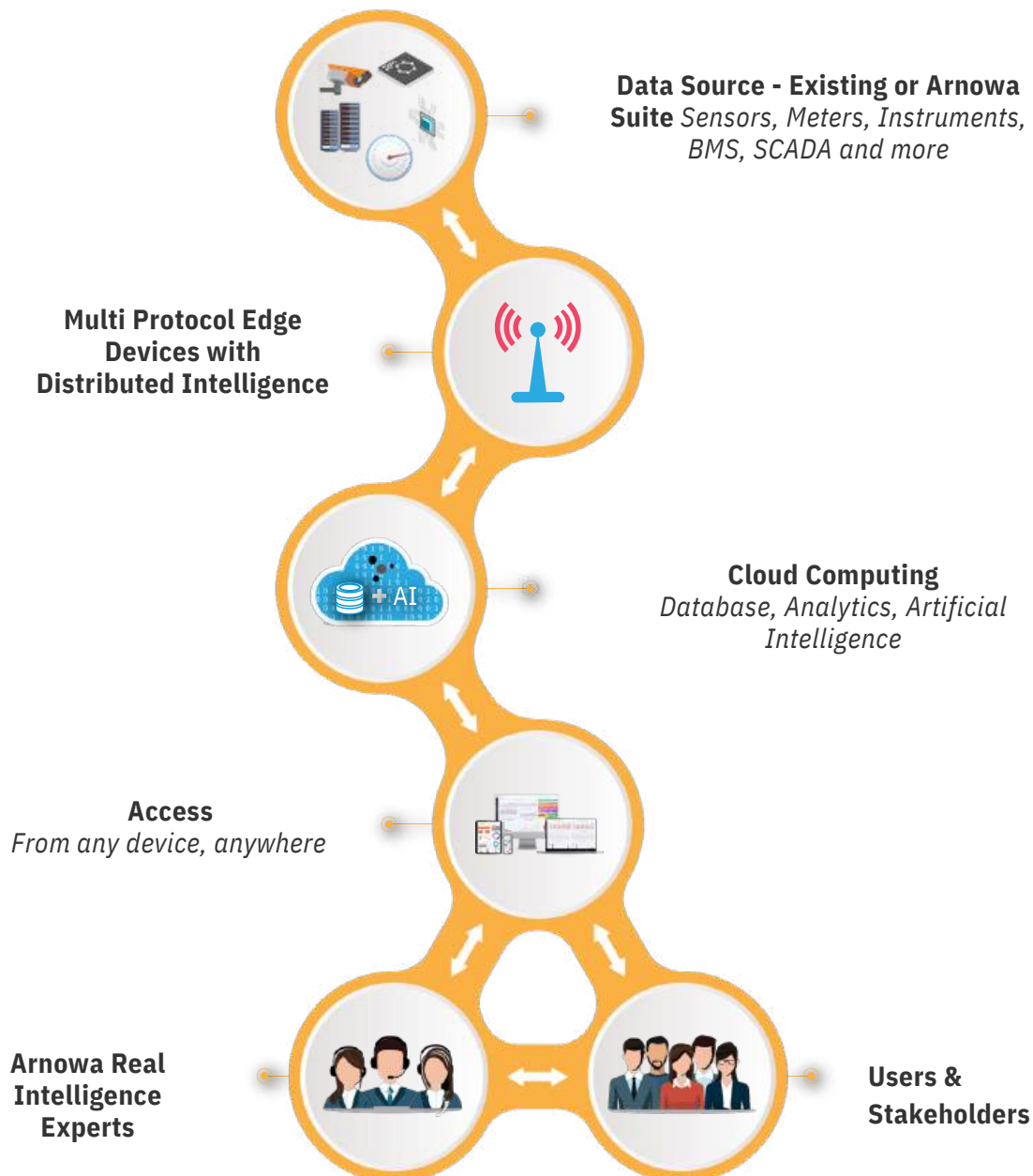


# Smart Technology Solutions

Established in 2013, Arnova is an Australian smart technology developer specialising in the design, manufacture, and deployment of advanced IoT and Industry 4.0 infrastructure. Our solutions simplify complex processes, enhance operational efficiency, foster collaboration, and promote sustainability across diverse industries.

The Arnova Multi-Protocol Edge Device provides versatile, reliable connectivity, enabling organisations to monitor and manage a wide range of devices and sensors across facilities. Complementing this, the AI-driven platform transforms raw data into real-time visualisation, intelligent control, and actionable analytics, creating a comprehensive end-to-end ecosystem.

This cutting-edge ecosystem empowers organisations to make informed decisions, optimise operations, minimise risk, and unlock new value from untapped data—delivering measurable impact across any scale or sector. By leveraging Arnova’s proprietary technologies, businesses become smarter, more efficient, and better equipped to achieve operational excellence.



# Why Us?

## End-to-End Intelligence

Arnova doesn't just capture data—we transform it into meaningful insights, actionable automation, and tangible efficiencies. Our multi-protocol wireless integration ensures agility and ease of deployment, while multi-parameter models deliver advanced analytics. AI-powered guidance continually refines predictions and alerts, enabling seamless business processes.

## Local Expertise, Global Standards

We are an Australian-owned company delivering locally developed smart technology solutions. As a leading end-to-end provider in the local market, we combine deep technical expertise with a consultative approach to solve sustainability and operational challenges. Our team partners with clients on data management, analytics, and reporting, ensuring solutions are tailored to real-world needs.

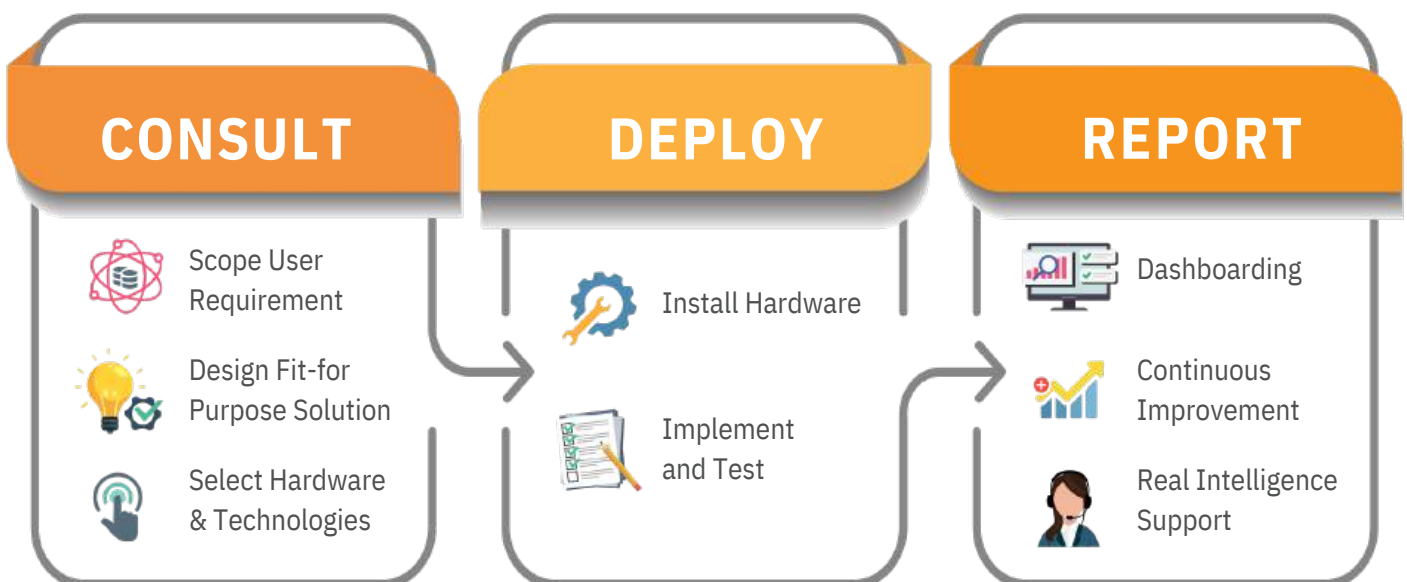
## Proven Track Record

Arnova's experience spans numerous commercial projects, executed with precision and continuous improvement at the core. Exhaustive internal product and project reviews ensure delivery consistently meets or exceeds performance targets, giving clients confidence in predictable outcomes.

## Dedicated Engagement

Each project is managed by a single point of contact, ensuring accountability throughout the project lifecycle. Stakeholder feedback drives our development, and we remain committed to engaging with clients to improve solutions continuously.

Value Driven. Real Intelligence. Operational Excellence



Arnova's integrated ecosystems redefine industrial operations by turning data into actionable intelligence. Our solutions streamline workflows, optimise resource use, and enhance product quality—delivering safer, greener, and more profitable outcomes across your business.

# Arnova Analytics Platform

Data alone is not intelligence. Many organisations generate vast amounts of data, but without the right insight, it remains underutilised. The Arnova Analytics Platform (AAP) transforms raw data into actionable intelligence through real-time monitoring, predictive modelling, and generative AI-driven insights.

Unlike conventional systems where IoT devices are siloed across multiple platforms, AAP provides a unified ecosystem—seamlessly integrating all devices, systems, and protocols into a single intelligent control centre.

With Predictive AI and Agentic AI, AAP not only identifies inefficiencies but also recommends and automates corrective actions—reducing costs, preventing downtime, and optimising performance. Generative AI capabilities further support decision-making by simulating future scenarios, enabling leaders to plan with foresight and confidence.



## Features

- Real-time data acquisition, advanced metering, and multi-protocol device integration
- AI/ML-powered analytics for predictive insights and anomaly detection
- Interactive, customisable dashboards with digital twin simulation modules
- Predictive alarms, alerts, and cross-platform fault detection
- Robust cybersecurity and role-based access controls
- Remote access and control – any device, anytime, anywhere
- Automated billing, compliance-ready reporting, and export functions
- Scalable architecture supporting expansion from single sites to enterprise-wide rollouts
- Seamless integration with legacy systems and third-party applications
- Agile platform adaptable to evolving needs, regulations, and technologies
- Kiosk-friendly dashboards and intuitive mobile access

## Benefits

- Smarter decisions with AI-driven insights and scenario planning
- Lower costs through automation, energy efficiency, and predictive maintenance
- Seamless adoption by integrating with existing systems and workflows
- Stronger compliance with audit-ready reporting and secure data trails
- Enhanced asset value via improved performance and lifecycle management
- Future readiness with a scalable, flexible platform that grows with you
- Engaged stakeholders through intuitive dashboards and easy data sharing



# Multi-Utility Spatial Intelligence and Control



As IoT technologies gain global traction, Smart Industry and Smart City projects are multiplying, tackling complex Big Data challenges. Yet, most solutions operate in silos, focusing on individual utilities. Arnowa breaks these silos, enabling unified management and control of multi-utility networks.

These networks often span vast areas with varying isolation. Fragmented standards and multiple wireless protocols make monitoring and control exceptionally complex. Arnowa overcomes this with Australia's first Multi-Protocol Edge-Computing Device (MED).

The MED combines multi-protocol communication, spatial intelligence, and AI-driven analytics to unify disconnected networks and deliver actionable insights. Its flexibility allows integration with existing infrastructure—including sensors, meters, cameras, and more—turning fragmented data into a coherent, intelligent system.

Arnowa connects the unconnected, delivering precision monitoring and correlation of diverse utility assets, real-time AI-assisted insights for predictive decision-making, seamless integration, and scalable solutions tailored for cities and industries of any size.



## Features

- **Indoor & Outdoor Tracking** – monitor environmental and utility metrics
- **Smart Video Analytics** – AI-powered insights for security and operations
- **Resource Management** – optimise energy, water, and utilities
- **Real-Time Monitoring & Alerts** – detect anomalies instantly
- **Multi-Protocol Communication** – connect diverse and legacy devices
- **Multi-Sensor & Meter Integration** – unify infrastructure data seamlessly
- **Edge-to-Cloud Computing** – local processing with cloud analytics
- **Digital Twin Modelling** – virtual replicas for planning and simulation
- **Predictive Maintenance** – anticipate equipment and system issues
- **Scalable Architecture** – expand across sites and networks easily

## Benefits

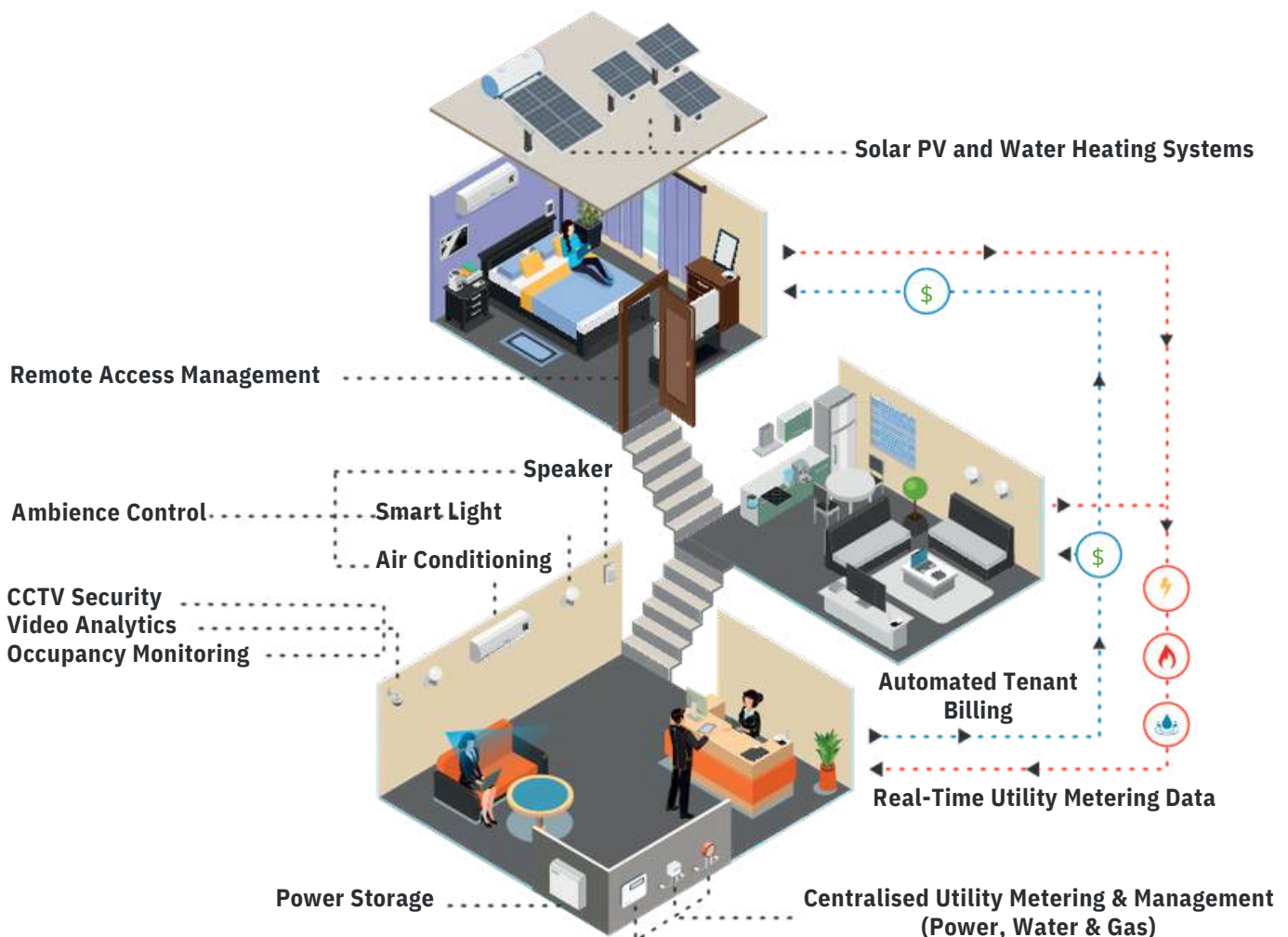
- Integrated utility management across multiple systems
- Edge-based data control for local processing
- AI-assisted analytics for predictive maintenance and optimisation
- Carbon footprint and emission reduction insights
- Enhanced facility security and monitoring
- Seamless integration with existing infrastructure
- Rapid, agile deployment and scalability
- Future-ready architecture for IoT expansion

## Our Protocol



Modern buildings are becoming increasingly complex, with multiple systems—HVAC, lighting, power, water, access, and security—often managed through separate platforms. This fragmentation creates operational challenges, inefficiencies, and higher costs for building managers. Arnowa’s Smart Buildings system simplifies this complexity by providing a unified, IoT-driven platform that seamlessly integrates all building systems.

Leveraging real-time monitoring, AI, IoT and machine learning, the system identifies efficiency opportunities, predicts maintenance needs, and optimises resource use without compromising occupant comfort. Fully customisable and compatible with pre-existing infrastructure, Arnowa’s solution transforms building operations into an intelligent, automated ecosystem that reduces costs, enhances energy efficiency, and improves occupant wellbeing.



## Features

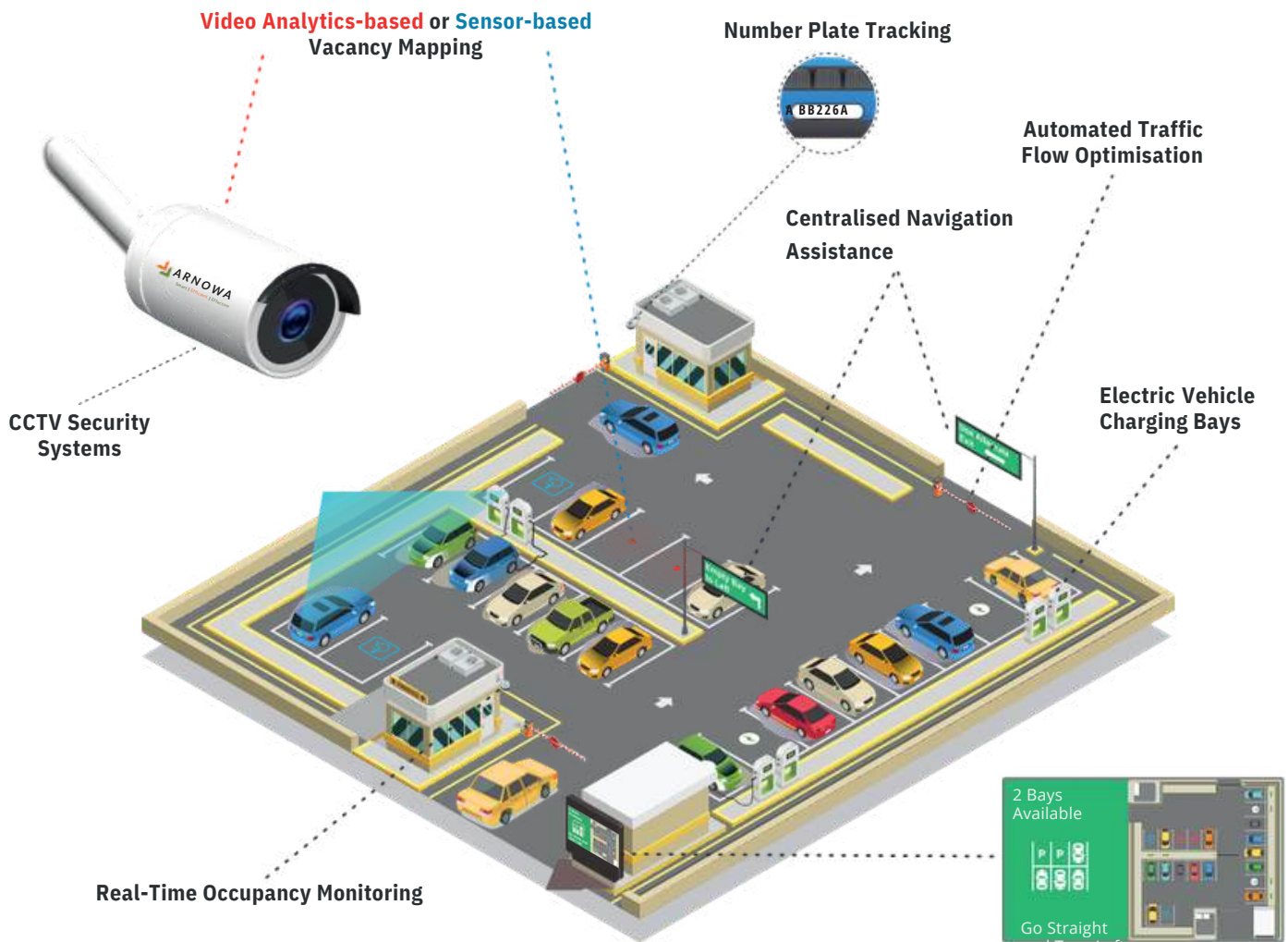
- Unified platform for all building systems
- Real-time monitoring and alerts
- Tenant-specific utility management & billing
- Occupancy, space, and asset tracking
- Access control and security
- Multi-protocol network connectivity
- AI-driven operational insights
- Digital twin for simulation and predictive planning

## Benefits

- Lower operational costs and energy use
- Enhanced occupant comfort and wellbeing
- Optimised space and asset performance
- Predictive maintenance to reduce downtime
- Data-driven sustainability and carbon insights
- Faster, informed decision-making
- Scalable across single or multiple buildings
- Improved security and compliance

# Smart Parking Management

Finding a parking spot can be frustrating, time-consuming, and stressful. Arnowa's Smart Parking Management system guides drivers to the nearest available bay in real time, reducing delays and optimising traffic flow. Using AI-powered video analytics and sensors, the system generates accurate occupancy maps, tracks vehicles, automates entry and exit points, and integrates seamlessly with EV charging stations and lighting/security systems. This intelligent platform improves efficiency, enhances safety, and simplifies parking operations for facilities of any size.



## Features

- Real-time parking availability and occupancy mapping
- Automation of entire parking operations
- Vehicle tracking and violation detection
- Advanced GPS navigation and bay-level guidance
- EV charging station integration
- Automated entry and exit control
- Lighting and security management
- Usage-based payment system

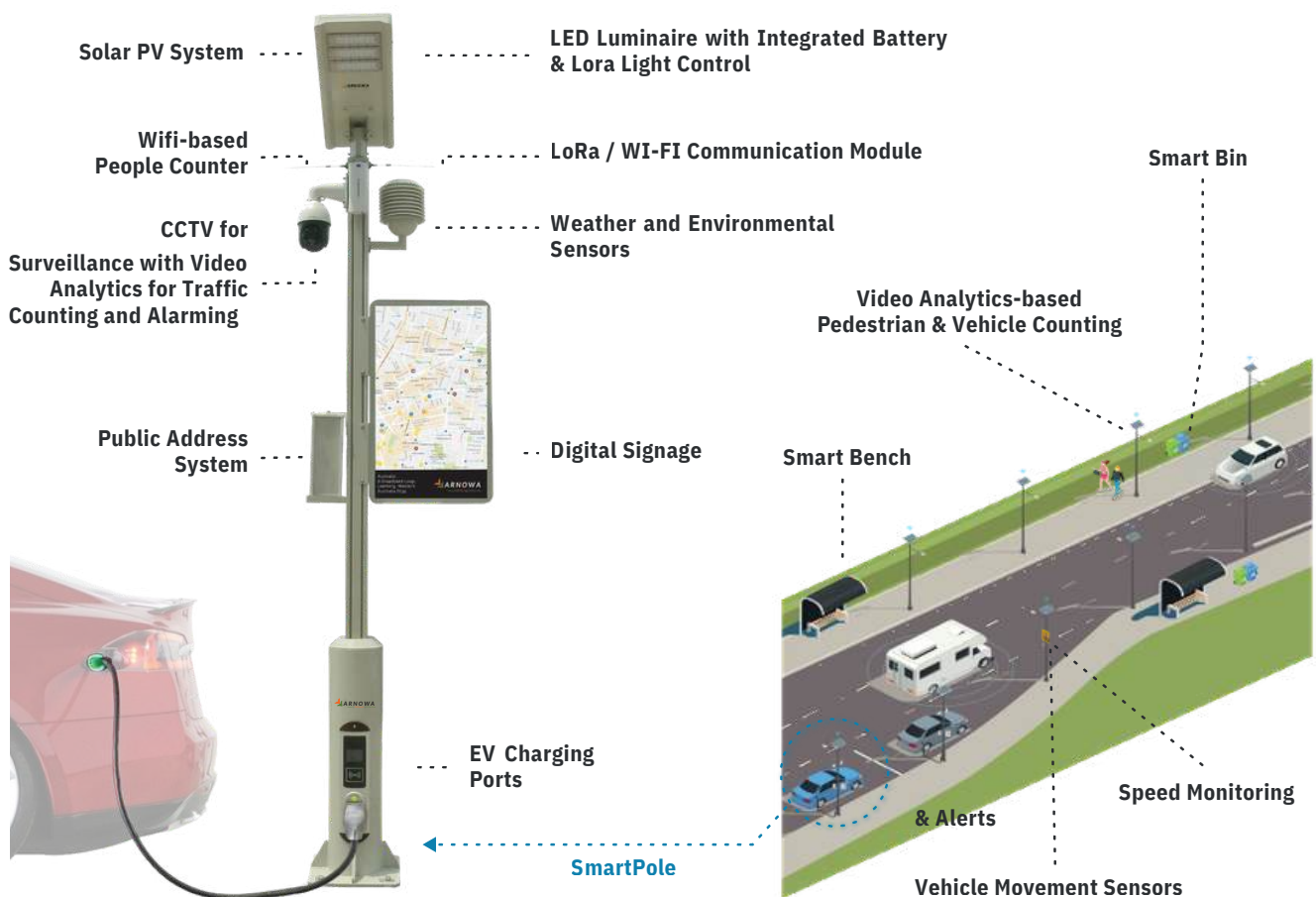
## Benefits

- Reduced parking search time and traffic congestion
- Enhanced vehicle and personnel safety
- Automated and seamless entry/exit operations
- Optimised parking space utilisation
- Improved traffic monitoring and flow management
- Lower facility management costs
- Scalable solution for single or multi-level parking facilities

# Smart Poles and Street Ecosystem

Cities are growing faster than ever, and traditional street infrastructure can't keep up. Fragmented systems, cluttered streets, and uncoordinated operations make urban management complex and inefficient. Arnowa's Smart Poles and Street Ecosystem transforms streets into connected, intelligent networks.

Smart Pole integrates LED lighting, EV charging, weather monitoring, AI-driven traffic and pedestrian analytics, CCTV surveillance, and public address systems, turning ordinary poles into multifunctional urban hubs. Combined with Smart Benches and Smart Waste Management, the ecosystem creates a seamless, safe, and responsive urban environment. Residents benefit from smarter, cleaner streets, while city managers gain actionable insights to optimise operations and reduce costs.



## Features

- LED luminaire(s)
- Integrated solar power battery
- LoRa/Wi-Fi communication and control
- Occupancy monitoring
- Public Address system
- Electric vehicle charging
- Digital signage
- Weather station
- CCTV

## Benefits

- Safer, more secure streets
- Real-time traffic and pedestrian insights
- Optimised urban operations and reduced costs
- Energy-efficient, smart infrastructure
- Enhanced citizen experience and engagement
- Scalable city-wide deployment

# Smart Stores & Franchises

Arnova's Smart Store solution transforms retail operations into an intelligent, connected ecosystem. By integrating IoT, AI, and machine learning, it provides retailers with a single dashboard to monitor and optimise every aspect of store operations—from supply chain and inventory to customer experience and staff management. The solution enhances visibility, ensures operational efficiency, and drives profitability across single stores or franchise networks.

With real-time monitoring and predictive insights, Smart Stores improve customer comfort, asset management, energy efficiency, and perishable goods handling, while enabling data-driven decisions that enhance sales and reduce costs.



## Features

- Real-time monitoring and alerts
- Occupancy and customer flow tracking
- Smart HVAC control
- Smart shelves and inventory management
- Temperature monitoring and control
- Predictive maintenance identification
- Equipment parameter monitoring
- Leakage and inefficiency detection

## Benefits

- Efficient resource and utility management
- Reduced operational and utility costs
- Optimised inventory and supply chain performance
- Improved customer experience and targeted campaigns
- Increased profitability and sales insights
- Reduced carbon footprint and energy consumption
- Enhanced staff management and productivity

# Video Analytics

Arnova's AI Video Analytics turns video feeds into powerful intelligence, enabling organisations to enhance security, optimise operations, and gain actionable insights in real time. Using advanced AI and machine learning, the system can detect, classify, track, and analyse people, vehicles, and objects, providing situational awareness across multiple environments.

Beyond security, the platform supports traffic and pedestrian monitoring, occupancy analysis, crowd management, and operational efficiency improvements. It integrates seamlessly with existing infrastructure allowing businesses, retail outlets, Smart Buildings, and public spaces to scale analytics across multiple sites.

With predictive and historical analytics, Arnova's solution not only identifies current risks and inefficiencies but also anticipates trends and opportunities, empowering data-driven decision-making for smarter operations.



## Features

- Real-time object detection, classification, and tracking
- Traffic and pedestrian flow monitoring
- Occupancy and crowd management
- Predictive and historical analytics for trend insights
- Automated alerts for predefined security or operational events
- AI-driven reporting and visual dashboards
- Multi-site scalability for enterprise deployment

## Benefits

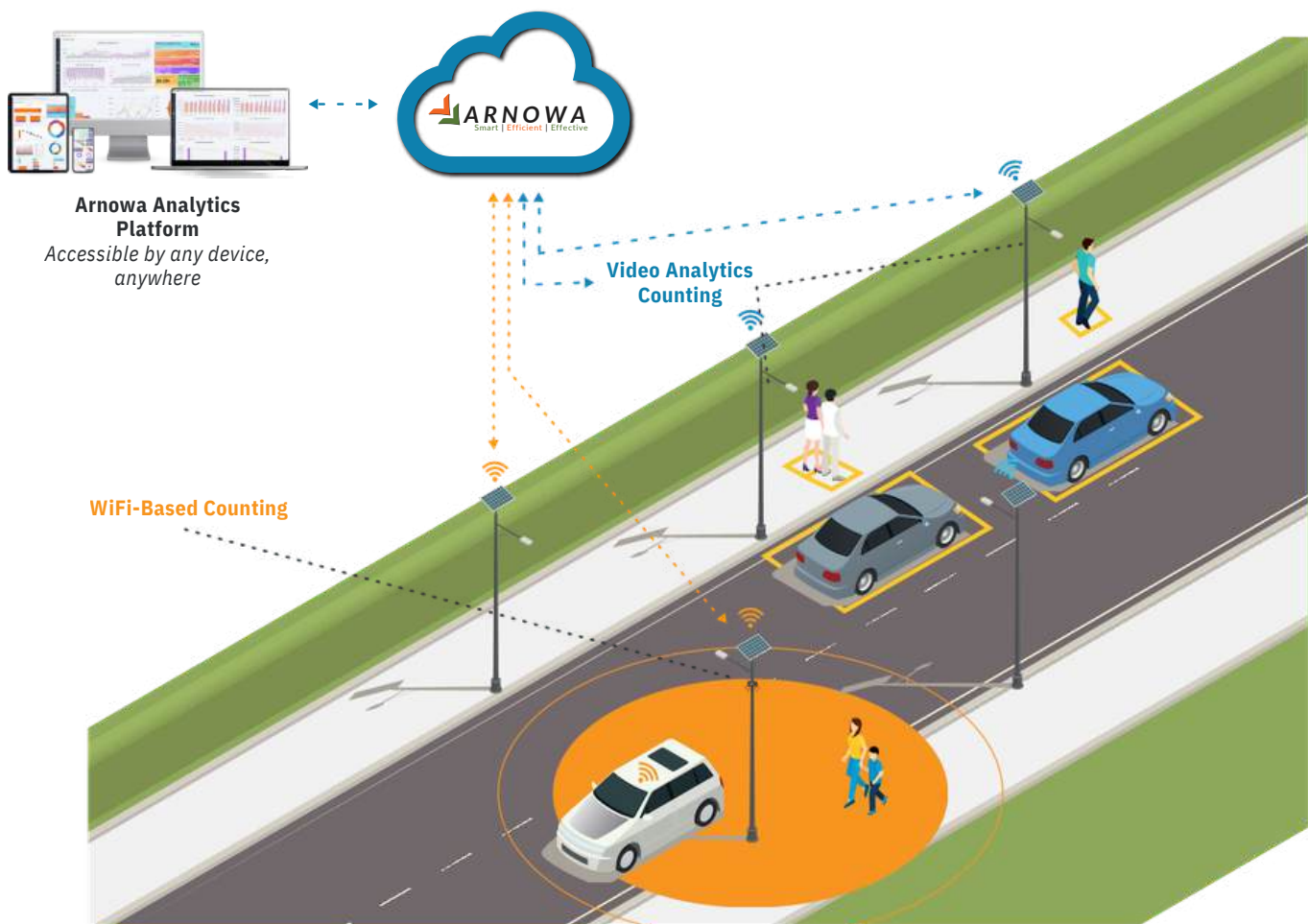
- Enhanced security, safety, and situational awareness
- Optimised traffic, crowd, and space utilisation
- Reduced manual monitoring and operational effort
- Data-driven insights for strategic and operational decisions
- Proactive identification of inefficiencies and risks
- Scalable across single or multiple sites and environments
- Improved decision-making with predictive analytics
- Supports compliance, safety, and operational reporting



# People Counting

Arnova's People Counting solution provides accurate, real-time data on occupant numbers and movement patterns, helping organisations optimise operations, enhance safety, and improve customer experiences. Flexible and secure, it works in open or closed spaces, making it ideal for streets, shopping centres, city councils, libraries, banks, recreational facilities, parks, restaurants, and more.

The solution can be implemented using WiFi-enabled IoT devices, AI-powered video analytics, or a combination of both, depending on space, accuracy requirements, and business objectives. By visualising foot traffic and occupancy trends, Arnova empowers managers to make data-driven decisions, optimise layouts, improve staffing, and drive operational efficiency and revenue growth.



## Features

- Accurate people counting in open or closed spaces
- IoT or AI video analytics-based deployment
- Real-time occupancy and movement monitoring
- Identification and tracking of people, vehicles, and objects
- Historical data and trend analysis
- Integration with existing IoT and building systems
- Scalable for single or multiple locations
- Automated alerts for occupancy thresholds

## Benefits

- Optimised foot traffic and space utilisation
- Improved operational efficiency and resource allocation
- Data-driven decision-making for layouts, staffing, and operations
- Enhanced customer and occupant experience
- Increased revenue opportunities through insights
- Scalable across facilities and locations
- Supports safety, compliance, and crowd management

# Virtual Power Plant

Arnova's Virtual Power Plant (VPP) redefines distributed energy management by connecting the unconnected—solar, batteries, diesel generators, and other DERs—into a single, intelligent energy network. Unlike conventional solutions, Arnova's VPP combines IoT-enabled hardware, AI-driven analytics, and predictive control to monitor, optimise, and dynamically redistribute energy across prosumers and consumers.

Beyond simple optimisation, the VPP enables new revenue streams through ancillary services, demand response, and behaviour-based load management. By integrating real-time monitoring, predictive analytics, dynamic pricing, and automated load control, Arnova delivers a flexible, scalable, and highly efficient energy solution for commercial, industrial, and city-wide applications.



## Features

- Seamless aggregation of all DER types (solar, batteries, diesel, and more)
- Real-time generation and consumption monitoring
- AI-driven predictive analytics and demand forecasting
- Dynamic demand response for peak load optimisation
- Proactive prosumer-to-consumer power redistribution
- Ancillary services and grid support
- Scalable from single sites to city-wide networks

## Benefits

- Maximised renewable energy utilisation and efficiency
- Reduced operational costs and peak demand exposure
- Enhanced grid flexibility, reliability, and resilience
- New revenue streams for prosumers and collaborators
- Smarter, data-driven energy and load management
- Superior performance via combined smart hardware and software
- Scalable and adaptable for future energy needs



Arnowa's Smart Grids redefine utility management by going far beyond electricity. They form a unified, intelligent platform that seamlessly integrates energy, water, gas, and other essential utilities — delivering true cross-utility efficiency.

Our solution empowers prosumers to manage multiple microgrids with confidence, ensuring uninterrupted supply, voltage stability, and fault-free operation. By combining real-time data from smart meters and IoT sensors with the power of Artificial Intelligence and Machine Learning, Arnowa's Smart Grids continuously balance demand, model network behaviour, and detect issues before they occur.

This future-ready approach provides radical transparency, remote control of loads, streamlined revenue management, and predictive efficiency insights. The result: reduced wastage, optimised performance, and significant cost savings. With Arnowa, Smart Grids evolve into a foundation for resilient, scalable, and sustainable infrastructure — making cities and industries not just smarter, but truly future-proof.



## Features

- Multi-utility integration (electricity, water, gas, environment)
- Peer-to-peer data and energy exchange across networks
- Multi-parametric monitoring for complete grid intelligence
- Multi-site scalability from buildings to entire cities
- AI-driven automation and predictive maintenance
- Emissions monitoring and management
- Reporting, alarming, and billing modules

## Benefits

- Unified management of diverse utilities on one platform
- Radical transparency for operators and prosumers
- Optimised performance across sites and parameters
- Stronger resilience and fault-free operations
- Maximum efficiency with reduced resource wastage
- Automated audit ready sustainability framework aligned reports



# Smart Forest Monitoring

Forests are vital to our planet's health—they capture carbon, purify air, regulate floods, filter water, and preserve biodiversity. Their protection and sustainable management are critical for the future of ecosystems and communities.

Arnova's Smart Forest Monitoring System combines IoT sensors, cameras, drones, and satellite data to track environmental parameters, soil health, wildlife movement, pest infestation, and fire risk. Advanced image, video, and data analytics powered by AI and ML deliver predictive insights, enabling authorities to act swiftly against threats like wildfires, deforestation, and illegal logging. Real-time alerts ensure rapid intervention, minimising risks and safeguarding forest resources.



## Features

- Smart sensors for fire, soil, water, biodiversity, and animal activity
- High-resolution image and video surveillance
- AI & ML analytics for predictive modelling and anomaly detection
- Real-time alerting and authority escalation
- Multi-site and multi-parameter monitoring

## Benefits

- Early detection and rapid response to threats
- Preservation of biodiversity and carbon sequestration potential
- Sustainable forest resource and water management
- Enhanced safety for nearby communities and habitats
- Trusted data to support conservation, compliance, and carbon credit programs



# Smart Irrigation Systems

Sustainable irrigation is essential for conserving water and ensuring community water security. Arnowa's Smart Irrigation Solution is built to achieve exactly that—optimising water use, reducing wastage, and enhancing system efficiency for both existing and new irrigation networks.

Our IoT and AI-enabled system continuously monitors key climate and soil parameters such as temperature, rainfall, evapotranspiration, and moisture levels. Advanced analytics automatically translate this data into intelligent watering schedules and run times. The system also detects leaks, overuse, or water loss events, instantly triggering maintenance alerts.



## Features

- Real-time IoT monitoring of soil, climate, and water parameters
- AI-driven, adaptive irrigation scheduling
- Leak and water loss detection with instant alerts
- Seamless integration with existing irrigation infrastructure
- Scalable from small landscapes to large agricultural operations

## Benefits

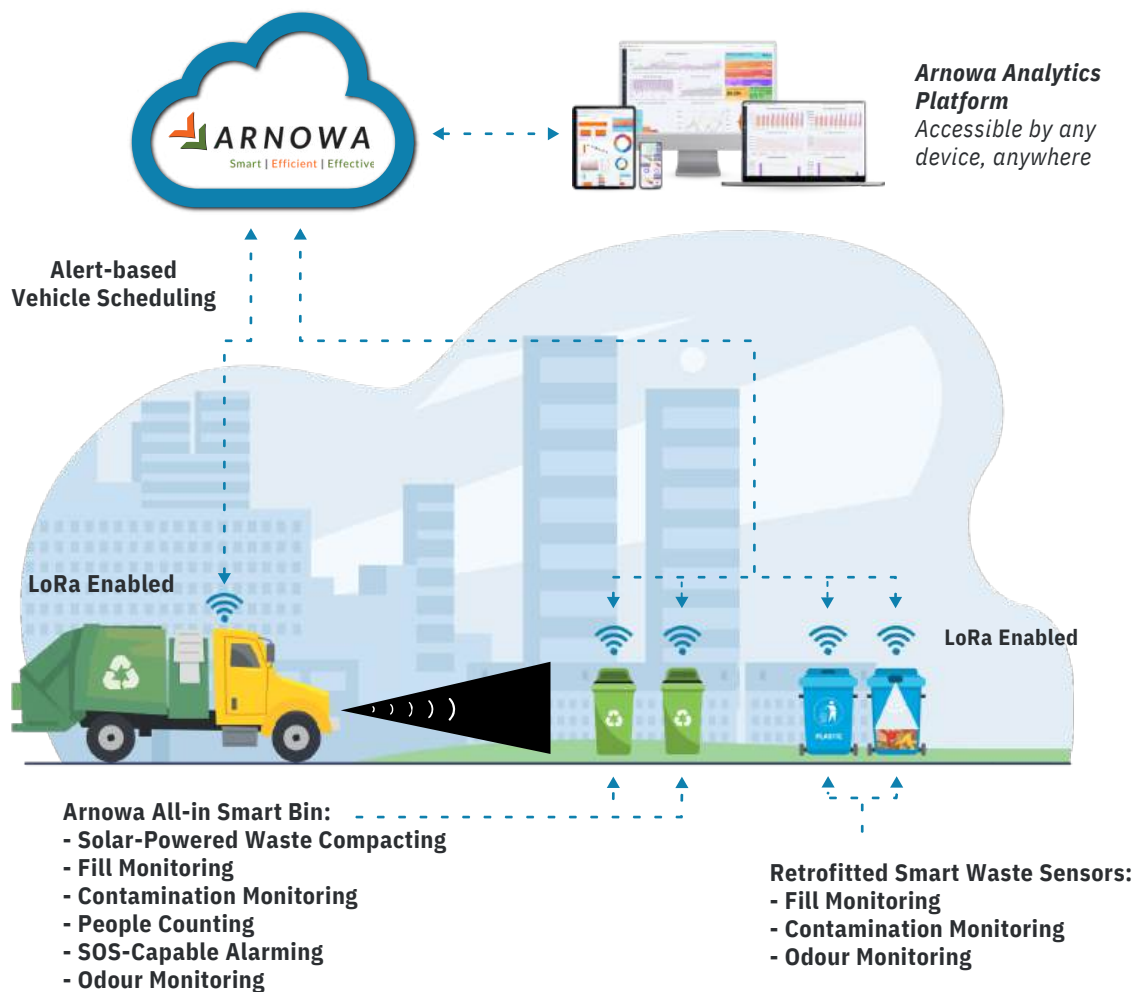
- Minimise water consumption and operational costs
- Maximise crop yield and landscape health
- Reduce environmental impact and enhance sustainability
- Proactive maintenance for uninterrupted irrigation
- Smarter, data-driven water management at scale



# Smart Waste Management

Effective waste management is critical for cleaner, healthier cities. Traditional collection methods are often inefficient—vehicles empty bins unnecessarily or too late—wasting labour, fuel, and taxpayer money while contributing to litter and environmental degradation.

Arnova's Smart Waste Management system transforms this process. IoT-enabled bins with fill-level sensors transmit real-time data to collection centres, enabling authorities to deploy vehicles only when needed. Predictive analytics anticipate filling trends, optimising collection schedules and routes. The result is a smarter, cost-effective, and environmentally responsible waste management system that gives cities full visibility and control.



## Features

- IoT sensors for real-time bin fill monitoring
- Predictive analytics for collection scheduling
- Remote monitoring and control
- Route optimisation for waste collection vehicles
- Scalable across cities and districts

## Benefits

- Reduced operational costs and fuel usage
- Minimised littering and overflow incidents
- Efficient allocation of collection resources
- Data-driven planning and reporting for authorities
- Enhanced sustainability and environmental stewardship

Industrial operations are increasingly complex, spanning multiple sites, processes, and utility systems. Fragmented monitoring and management lead to inefficiencies, downtime, and higher operational costs. Arnowa's Smart Industries solution provides a unified, AI-driven platform that integrates machines, sensors, utilities, and production systems for real-time visibility, predictive insights, and operational optimisation.

By combining IoT-enabled monitoring with Artificial Intelligence, Machine Learning and Digital Twins, Smart Industries identifies inefficiencies, predicts maintenance needs, and ensures seamless coordination across facilities. The platform also enables energy optimisation, safety monitoring, and regulatory compliance, driving productivity, cost savings, and sustainability.



## Features

- IoT-based real-time monitoring of machines, utilities, and processes
- Digital twins for simulation, scenario planning, and optimisation
- AI-driven predictive maintenance and anomaly detection
- Multi-site, multi-process integration
- Energy, resource, and safety management

## Benefits

- Predictive insights to prevent downtime and extend asset life
- Optimised resource and energy consumption
- Improved production efficiency and process quality
- Data-driven decision-making and operational transparency
- Scalable, future-ready platform for evolving industrial needs



Digital Twins represent a major leap in smart technology and industrial innovation. By combining IoT, AI, Machine Learning, cloud computing, and advanced analytics, Digital Twins create a virtual replica of a physical asset, process, or system. This virtual-physical pairing enables continuous monitoring, predictive insights, and proactive intervention – allowing organisations to prevent downtime, optimise operations, and plan for future scenarios.

Sensors embedded in the physical components capture real-time data on performance, condition, and location. This data is transmitted to the cloud, where it is contextualised, analysed, and visualised in the Digital Twin environment. AI and Machine Learning simulate multiple scenarios, providing actionable intelligence to improve efficiency, reduce risks, and explore new operational opportunities.

Digital Twins empower businesses to monitor and control operations remotely, optimise asset utilisation, and make data-driven decisions anytime, anywhere. From industrial plants and smart buildings to city infrastructure and agriculture, the technology transforms real-world operations through a dynamic, interactive virtual model.



## Features

- Minimise downtime and operational risk
- Optimise asset performance and resource use
- Enable proactive, data-driven decision-making
- Simulate scenarios before real-world implementation
- Remote control and monitoring anytime, anywhere

## Benefits

- 2D and 3D Virtual replication of physical assets and systems
- IoT-enabled real-time monitoring
- AI & ML-powered predictive analytics
- Scenario simulation for planning and optimisation
- Cloud-based multi-site and scalable deployment



# The Power of Local Smart Technology. The Power of Real Intelligence.



At Arnowa, we believe that data alone is not enough—its true value emerges when combined with expertise, context, and actionable insights. That’s why our solutions pair cutting-edge smart technology with the experience of skilled engineers, consultants, and project managers. Every engagement is tailored to the unique needs of our clients, with a dedicated manager overseeing the entire project lifecycle to ensure the highest standards of quality, safety, compliance, and performance.

As an Australian-born smart technology innovator, Arnowa empowers organisations to optimise asset performance, energy, water, and environmental management. Our AI-driven systems transform real-time data into intelligent insights, helping clients anticipate issues, reduce waste, and make data-driven decisions that improve productivity, efficiency, and sustainability.

Beyond technology, we provide end-to-end support—guiding clients through planning, deployment, and operations, and offering timely recommendations to enhance performance. Whether it’s monitoring utilities, industrial processes, smart buildings, or city-scale infrastructure, our platform allows organisations to visualise, control, and optimise their assets from anywhere in the world.

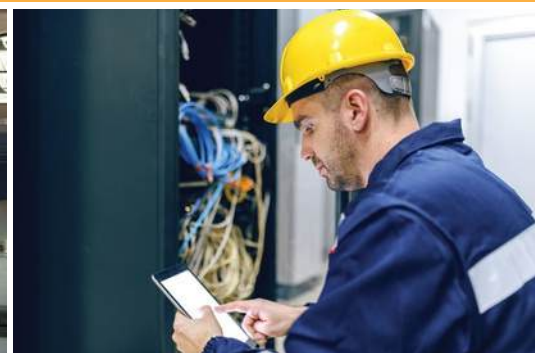


**With Arnowa, you gain more than a solution—you gain a partner in innovation, dedicated to delivering measurable improvements, empowering smarter decisions, and helping your business thrive in an increasingly complex and connected world.**





Make your business smarter with Arnowa. Partner with Australia's leading Smart Technology innovator and turn tomorrow's challenges into today's opportunities





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