PARTNERING WITH
THE AUTOMOTIVE INDUSTRY IN ASIA
A CHANGING AUTOMOTIVE MARKET IN ASIA

Over the last decade the global automotive industry has undergone the greatest transformation it has experienced in its history. Although North America and Europe are still the largest markets globally, Asia is taking an increasing share of global vehicle sales and is the only major market expected to see continued strong growth in both the medium and long term.

Fast GDP growth and the highly aspirational Asian consumers have been the two main growth drivers for most of the emerging markets: China, India, Malaysia and other developing markets in Southeast Asia. In China for example, a rising middle class will continue driving the steady growth of the Chinese auto market, with the markets for new purchases and replacement of vehicles growing rapidly.
WE UNDERSTAND YOUR NEEDS

However whilst the market is vibrant, the challenges faced by the automotive industry are increasing in scope and complexity. Global automotive firms are under greater pressure to meet local market needs, driven largely by the consumers’ rising concerns over vehicle quality following high-profile product recalls, a strong desire for comfort, the growing demands for state-of-the-art technology in vehicles, and the high emphasis on fuel efficiency.

Some of the key challenges the automotive industry needs to focus on include:

1. **Responding to market demands efficiently** – whilst multi-national automotive firms are gaining market share and strengthening their brands in Asia, an intelligent approach that can maximise the value from the supply chain and meet the critical cost, schedule and quality standards in large-scale expansion is urgently required.

2. **Delivering your brand consistently** – a brand image is what will secure you the sale, bring you customer loyalty and ultimately keep your profits healthy. An ambitious and exciting brand strategy that is scalable, flexible and can be achieved in this dynamic automotive industry is vital for a successful roll out programme.

3. **Managing your business in an environmentally sustainable manner** – growing public awareness on human health and the environment has increased the sense of responsibility for businesses to minimise negative impact to the environment from manufacturing activities. New technologies such as hybrid cars that can optimise energy performance and zero exhaust that can lead to the beneficial re-use of valuable resources are more likely to be adopted.
WE PROVIDE BEST-IN-CLASS SERVICES FOR THE AUTOMOTIVE INDUSTRY

As a business our focus is on helping clients to address the challenges they face by creating solutions based on a blend of services throughout the asset lifecycle.

1. Planning the asset
   - Site selection
   - JV partner selection
   - Investigation
   - Strategy development.

2. Creating the asset
   - Design management
   - Facility, infrastructure and work place design
   - Programme management
   - Project management
   - Facility & construction management
   - Cost & Commercial Management
   - Water Solutions

3. Operating the asset
   - Compliance audits
   - Energy efficiency and zero waste
   - Asset performance optimisation
   - Environment health & safety

4. Re-defining the asset
   - Site environmental impact assessment
   - D4 - deactivation, decommissioning, decontamination, demolition
   - Environmental services
As the Project and Cost Manager for the BMW BBA NEX & FWD project we are responsible for a 300,000sqm expansion programme including a new press shop, body shop, paint shop, assembly shop, logistics centre and the infrastructure system in the extension plant. We were entrusted to provide overall procurement, project and construction management services including design coordination, permitting & approval, contract & schedule management, supply chain management and ultimately to minimise delays and cost increases.

We provided a customized project management approach to meet the zero exhaust requirements, helping achieve 20% energy savings on a yearly basis. With delivery of an accurate procurement strategy and various design changes, we helped address the risks and provided certainty for the delivery, completing the project on schedule and within budget.

The Benefits:

- Reduced energy footprint and helped to build a sustainable and environmentally friendly manufacturing plant
- Focused on supply chain to drive performance of the project team
- Implemented mobility efficiently with a team of over 70 people on site overseeing construction
- Created a target operating model and new consolidated structure
- Changed the procurement behaviours and managed design changes.
Delivering the Brand Strategy Consistently, Audi

Appointed by Porsche Holdings China, we were requested to design and manage the client’s first ever Audi 4S store building in Hangzhou. It spans 20,000sqm including a showroom, a sales office, an administration office, a car maintenance and service workshop, a roof top car park and a ground car park.

Serving as the Audi dealership headquarter for Porsche in China, the project had to be completed on time and within budget, and finished to a brand consistency that could work as a role model for all other stores. We established a strong and dedicated project team to lead and manage the design, procurement, approval and construction of the core and shell, MEP installation and interior fit-out works. Acting as the brand guardian, we also worked collaboratively with the client to develop and maintain delivery excellence, improving the quality of the showroom environment and ensuring the overall customer experience is seamless, whilst brand standards and objectives defined in guidelines were fully implemented.

The Benefits:
- Provided certainty of delivery making sure the project was completed on time and within budget
- Conducted a viable brand plan and an achievable delivery and implementation model
- A carefully crafted customer journey was realised in the showroom experience
- Driving brand consistency, keeping costs down and improving speed to market
ARCADIS has performed water-use assessments and metering plans at major auto manufacturing facilities in the U.S., Europe, Latin America and Asia Pacific. We were able to use this global industrial water practice expertise to help solve our client’s needs.

We developed a site water balance and process flow diagram to identify all sources of water and their final disposition. By providing data review that compares day/night and holiday/peak production conditions for anomalies, we were able to identify key contributors to effluent flow and load. Based on that, we identified areas of inefficiency and opportunities for improvement of large water-usage processes and plant/operations/process procedures. In addition to that, an internal water meter plan was designed and implemented, to evaluate existing meters and recommend enhancements to provide better monitoring control of water consumption and more accurate metering for billing.

**The Benefits:**
- Saved 500 million gallons of water that equal to 1.9 million m³.
- Helped achieve an estimated annual cost saving of US$2,100,000.

With our client under pressure to address local water scarcity and cost concerns, ARCADIS was appointed to help minimise water consumption and maximise reuse for their global manufacturing facilities. This included the use of alternative lower quality water sources while prioritising investment returns.
The client needed to deactivate and decommission an automobile manufacturing facility that had been in operation for over 75 years. In order to lease or resell the property in a manner consistent with the company’s internal environmental risk management philosophy and applicable regulations, the client needed help. It sought ARCADIS’ expertise in regulated materials, site characterisation, and strategic remedial services including human health and ecological risk assessment to deliver this against a compressed timeline and in the most cost-efficient manner.
ARCADIS was required to conduct a Phase I Environmental Site Assessment (ESA) and regulated materials survey in 2007 and prepare and implement a modified Sampling and Analysis Plan (SAP) in 2008. Based on the findings documented in the Phase I ESA, ARCADIS performed soil, sediment, groundwater and surface water sampling as part of the Phase II ESA. In support of the client’s redevelopment efforts, ARCADIS tailored the site’s remedial strategy and implemented a risk-based approach to the client’s redevelopment timeline which allowed the client to customise remediation to reasonably anticipate future use of the site.

**The Benefits:**
- Implementation of a modified regulated materials sampling plan instead of the comprehensive sampling plan saved the client money (US$295,700 vs. US$619,300)
- It also provided sufficient information to make decisions regarding disposition of the facility
- Implementation of a modified Phase II ESA sampling plan utilising co-located samples saved the client an estimated US$10,000 and provided sufficient information regarding site characterisation to allow development of remedial goals
- The project was completed on schedule and within budget.
ARCADIS is the leading global natural and built asset design & consultancy firm working in partnership with our clients to deliver exceptional and sustainable outcomes through the application of design, consultancy, engineering, and project and cost management services.

ARCADIS differentiates through its talented and passionate people and its unique combination of capabilities covering the whole asset life cycle, its deep market sector insights, and its ability to integrate health & safety and sustainability into the design and delivery of solutions across the globe.

We are 28,000 people generating €3 billion in revenues. Within Asia we can call upon the skills and resource of 5000 professionals based across the wider region. We support UN-Habitat with knowledge and expertise to improve the quality of life in rapidly growing cities around the world including many locations within Asia.