

Integrating technology with innovative minds



# TeQnovation Leading Provider of Innovative Software Solutions & Services in Industrial Automation











## Our Company in Nutshell

We cover the automation layers from sensors to PLC to MES and interlinked to ERP focused in multiple industries including Oil & Gas Exploration & Production, Refining & Petrochemicals, Energy Utilities (Power & Distribution) including Alternative Energy, Water and Waste Water Treatment, Manufacturing (Steel, Aluminum, etc.), Food & Beverage Processing.



# Services We Offer

- Wonderware certified engineering and services.
- Servelec RTU's (Kingfisher and TBox), including supply and services
- Functional Safety Audits and Assessments (TÜV Rheinland Certified)
- Cyber Security Audits and Services on IT and OT level
- Supply of Process Instrumentation like pressure valves, flow meters, etc.
- Supply of analysers for different industry verticals.
- Supply of Solar Systems like solar panels, convertors, etc.
- Ergonomic studies and detailed design for workplaces
- Supply of individually designed HMI solutions
- Supply and services for MES solutions for the Upstream Oil and Gas Market
- Supply of Unique Energy Industry Consultants and engineers for application development,
  GIS and Remote Sensing, etc.







- Integrity Management Facilities and Pipeline Integrity Management Audits
- TeQnovation Rugged Computer Units (RCU's) with IP67 graded certification

# Our knowledge and Expertise

We help our clients from A to Z improving their automation approach and increase operational efficiency with proven solutions.

#### Consultancy Design Strategy Tooling Support Rapid Custom Made Prototyping Redundancy Architecture Scripting Roadmaps Product Development **Unified Solution** Integration Independent View Communication Toolkits Support **Protocols** Licenses **Delivery** Support Toolkit Libraries Deployment Expertise CSD Onsite SLA Unification AEP Health Checks Offsite Stability Knowledge Tooling RSC Certified Quality Centralization Customizable **Leveled Support** Being cost effective Success Quality in Mind



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## Cases in Oil & Gas Industry







#### About the Company

West Qurna-2 is a giant oil field in Iraq and the second largest undeveloped field in the world in terms of its hydrocarbon reserves.



#### What we achieved

TeQnovation personnel was involved in MES implementation as a part of Digital Oilfield project including Real-time Database, Web Portals and Integrated Asset Modelling systems.



#### What we use

A variety of software were implemented including OSISoft PI, Energy Components, StarLIMS, Petroleum Experts, OVSGroup and many more.



## Goals of the Project to be achieved

MES was implemented as a complete solution where all software linked together to provide single Digital Oilfield solution.







## Our Cases in Oil & Gas Industry



# ADNOC- ZADCO - Fire & Gas System Upgrade



## About the Company

ZADCO uses Wonderware Software for their integrated Fire & Gas System on Zirku Island.



#### What we achieved

TeQnovation is currently troubleshooting and correcting the existing Wonderware system for **12** sites (control rooms) which showed inconsistencies due to unstructured configuration. More expansions are to come after the upgrade.



#### What we use

Based on the latest versions of Wonderware ArchestrA software we agreed on modern HMI standards with integrated alarm management and developed the ZADCO Toolkit for rapid and structured deployment.



## Goals of the Project to be achieved

Upgrade the entire Wonderware system **with zero downtime** and improve stability and performance.







## Our Cases in Oil & Gas Industry



## Petroleum Development Oman Petroleum Development Oman - Support contract



#### About the Company

PDO is the foremost exploration and production company in the Sultanate of Oman. It accounts for more than 90% of the country's crude oil production and nearly all of its natural-gas supply.



#### What we achieved

TeQnovation was awarded a support contract of the Wonderware system with a local team from PDO itself to train and guide this team to maintain the Wonderware system themselves.



#### What we used

The upgraded system with Wonderware System Platform 2014 R2 SP1 was implemented before starting the support contract. Once the support contract was awarded, the support strategy was defined together with PDO to reduce the maintenance costs by half and have parts of the services managed by PDO themselves



#### Goal of the Project

Major goal of the project was to guide PDO in reducing the yearly maintenance cost of the Wonderware system by 50% and implement a core team with employees from PDO to take over the defined support strategy.







## Our case in Metallurgy

# TASNECLUIA Tasnee Plastics and Metallurgy - Process Information Management System



#### About the Company

Tasnee collects a massive amount of data every day. They use Wonderware Historian to collect data and create a dedicated set of reports for production management, quality and asset management purposes.



#### What we achieved

TeQnovation got the order to increase and optimize data collection and storage performance.



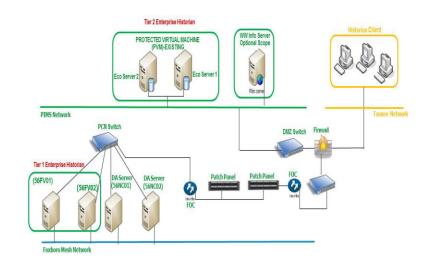
#### What we used

The latest Wonderware Historian for System Platform 2014 R2 was used. We created a Tier-1 and Tier-2 architecture to distribute the historical data from secure production area to management intranet.



## Goal of the Project

Implement a secure PIMS collecting data from different production sites and provide structured historical data to Tier 2 level outside DMZ for reporting to management.





## Our case in Aluminum Industry



#### Sohar Aluminium LLC - Cast House Process Control, Reporting and MES



## About the Company

Sohar Aluminum LLC is a private company owned by Oman Oil, Taqa/Adwea and Rio Tinto, formed in 2004 and is based in Sohar, Oman.



#### What we achieved

We studied the entire plant and made a comprehensive report about the situation as is and to be. Further implementation is pending due to serious issues the client is going to fix in his production currently.



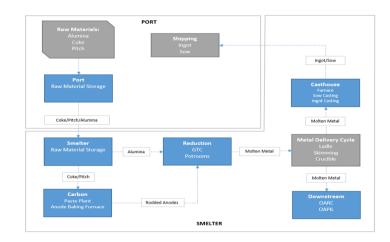
#### What we used

We had our specialist in Aluminium production to study the complete site.



#### Goal of the Project

The complete project includes the root cause analysis, modification and support of the existing MES application to improve functionality and reduce complexity, development of an updated Anode and Metal Management Systems









## Our case in Wastewater Industry



### Moalajah-Historian Data centralization and QI Analyst Pilot



#### About the Company

Moalajah is a joint-venture between BESIX and Veolia that provides a wide range of services in the sector of water and wastewater including but not limited to design, customer service, operations and maintenance.



#### What we achieved

We helped Moalajah to improve operational issues and maintenance procedures and thus plant reliability by historizing process data, alarms and events to be able to create valuable information which will enable them to make better decisions, improve procedures and enhance operation and plant reliability.



#### What we used

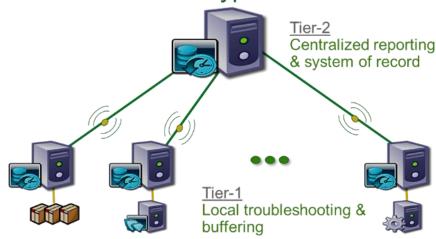
Our engineers in Wonderware used their experience to make the best out of the Wonderware systems to make sure these systems are utilized to the full extend



#### Goal of the Project

The goal was to start a continuous improvement process which will reduce costs, improve results and help Moalajah's mother companies to improve not only in this plant but also in other operations.

# Tiered Historian – Typical Architecture







## Our case in Food and Beverage Industry



### Almarai - MES Services



#### About the Company

Almarai is a Saudi-based conglomerate, listed on the Tadawul stock exchange. It specializes in food and beverage manufacturing and distribution. The company's main offices are located in Riyadh, Saudi Arabia



#### What we achieved

We provided MES Services for Almarai Company by allocating a dedicated experienced MES food & beverage specialist for about 5 months to work with Almarai Team in the kingdom of Saudi Arabia



#### What we used

Our Experienced MES Engineer was allocated on site to support Almarai .



## Goal of the Project

The goal was to provide MES services to Almarai plant for a fixed period of time.







## Contribution to Knowledge Sharing and technical awareness

We proudly contributed to the development of the knowledge and best technical practices by attending seminars and conferences to share challenges and solutions with other experts like giving a general SCADA presentation in the Sultanate of Oman or providing technical workshops and training courses for our valuable clients.

## Training - Centralized SCADA Presentation based on best practices

We organized a general SCADA presentation in the Sultanate of Oman that gave a detailed

breakdown how to implement centralized SCADA systems with multiple sub-layers of DCS-systems connected to these systems.

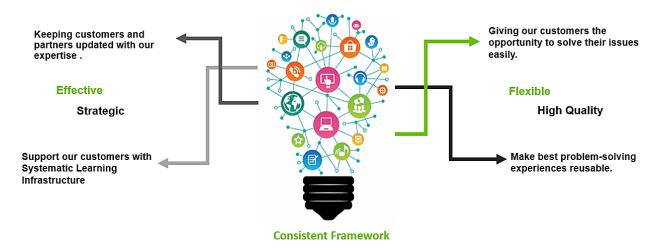
The goal of the training was to create awareness of the latest technology available in the market including different software's from different vendors and their capabilities.



## Our Knowledge Database

Keeping customers and partners updated with our expertise and giving them the opportunity to solve their issues easily, we made it our priority to provide a support infrastructure to share our best practices as a System Integrator so that our customers and partners can easily locate knowledge base information in a self-serve help to troubleshoot their technical issues.

Our consistent and easy-to-read framework encourage our knowledge database users to explore further and make an evolving network of developing innovative solutions for new challenges and share them together.







## Our Offices Around the World





