



AZTI® GROUP OF COMPANIES

PIES®

Proven, Infallible,
Effective, Simple

IPS®

Intrusion Preventive
System

BLUCOR®

**Your Solution Provider for
Platform Safety System**

COMPANY PROFILE

☎ +603-2712 9322

✉ lws@aztihsb.com

✉ williamfoo@aztihsb.com

✉ mglim@aztihsb.com

🌐 www.aztigroup.com

Corporate Structure

AZTI® Group of Companies

AZTI Technology Sdn Bhd



Research & Development, Business Development
Technical Assistance, Licensing of Intellectual Property Rights (IPR),
Investment Holding, Engineering Services.



100%

AZTI Engineering (M) Sdn Bhd



System Integrator, Engineering Services,
Pre/Post Sales Support for P.I.E.S® technology.



100%

ALPHA ZAICON Technology International Inc.



IP and Trademark holder for
P.I.E.S®, BLUCOR®, AZTI®, Alpha Zaicon®.

Value Proposition



AZTI[®] core activities are to provide the following services:



1

Project Management

2

Turnkey Solution

3

Engineering Design

4

System Integration

***AZTI**[®] adopts a flexible approach to cater to our client's requirements.*



5

Installation & Maintenance

6

Testing & Commissioning

7

Marketing & Procurement

8

Engineering Services



1985

1988

1995

2014

2015

Incorporation of Alpha Zaicon Technology Inc. (AZTI®), Toronto Canada

Vancouver Skytrain Expo Line – 20 Stations



Sydney Monorail - 8 Stations

Los Angeles Metro Green Line - 14 Stations
Kuala Lumpur PUTRA line (Kelana Jaya LRT) – 19 Stations



Change of ownership and renamed Alpha Zaicon Technology International Inc.

Secured contract for Kuala Lumpur's Kelana Jaya Line Extension Project - 13 stations

Secured contract for Kuala Lumpur's Ampang Line LRT Project - 25 Stations

Secured contract for Kuala Lumpur's Ampang Line LRT Extension Project - 11 Stations

AZTI® Technology Sdn Bhd (Parent Company of AZTI®) obtained MSC Status

New Improved System AZ6000 Controller with HMI (Human Machine Interface)



2016

2017

2018

2019

2022

Patent filed for New Improved System AZ6000

Completed Kuala Lumpur Kelana Jaya Line Extension Project 13 stations

AZTI Holdings Sdn Bhd certified ISO 9001:2015 Standars UKAS

AZTI Holdings Sdn Bhd certified ISO 9001:2015 Standars DSM

PIES® EN 50121-4:2006 certified for EMC

PIES®- certification for SIL2 by MOT Indonesia
EN 50126-1:1999
EN 50128:2011
EN 50129:2003
Contract Secured for Kuala Lumpur's LRT 3 – 20 Stations

Product Certification by MOT Indonesia

Completed Taiwan KaohSiung Rapid Transit Corp. Pilot Project 1 station

A Proven Track Record of 30 Years

**KAOHSIUNG RAPID
TRANSIT CORP**



**TAIWAN
2022**

STATION: 1

**STATUS: PILOT PROJECT
IN OPERATION**

20

STATION:

STATUS: IN PROGRESS

**MALAYSIA
2018**



LRT 3

**AMPANG
EXTENSION LINE**



**MALAYSIA
2014**

STATION: 11

STATUS: IN OPERATION

STATION: 25

STATUS: IN OPERATION

**MALAYSIA
2014**



**AMPANG
LIGHT RAIL
TRANSIT**

**KELANA JAYA
EXTENSION**



**MALAYSIA
2014**

STATION: 13

STATUS: IN OPERATION

STATION: 19

STATUS: IN OPERATION

**MALAYSIA
1995**



**KELANA JAYA LIGHT
RAIL TRANSIT**

A Proven Track Record of 30 Years

STATION: **14**

STATUS: **IN OPERATION**

U.S.A.
1995



**LOS ANGELES
METRO GREEN LINE**

**SYDNEY
MONORAIL**



AUSTRALIA
1988

STATION: **8**

STATUS: **1988-2013**

STATION: **20**

STATUS: **IN OPERATION**

CANADA
1985



**VANCOUVER
SKY TRAIN EXPO LINE**

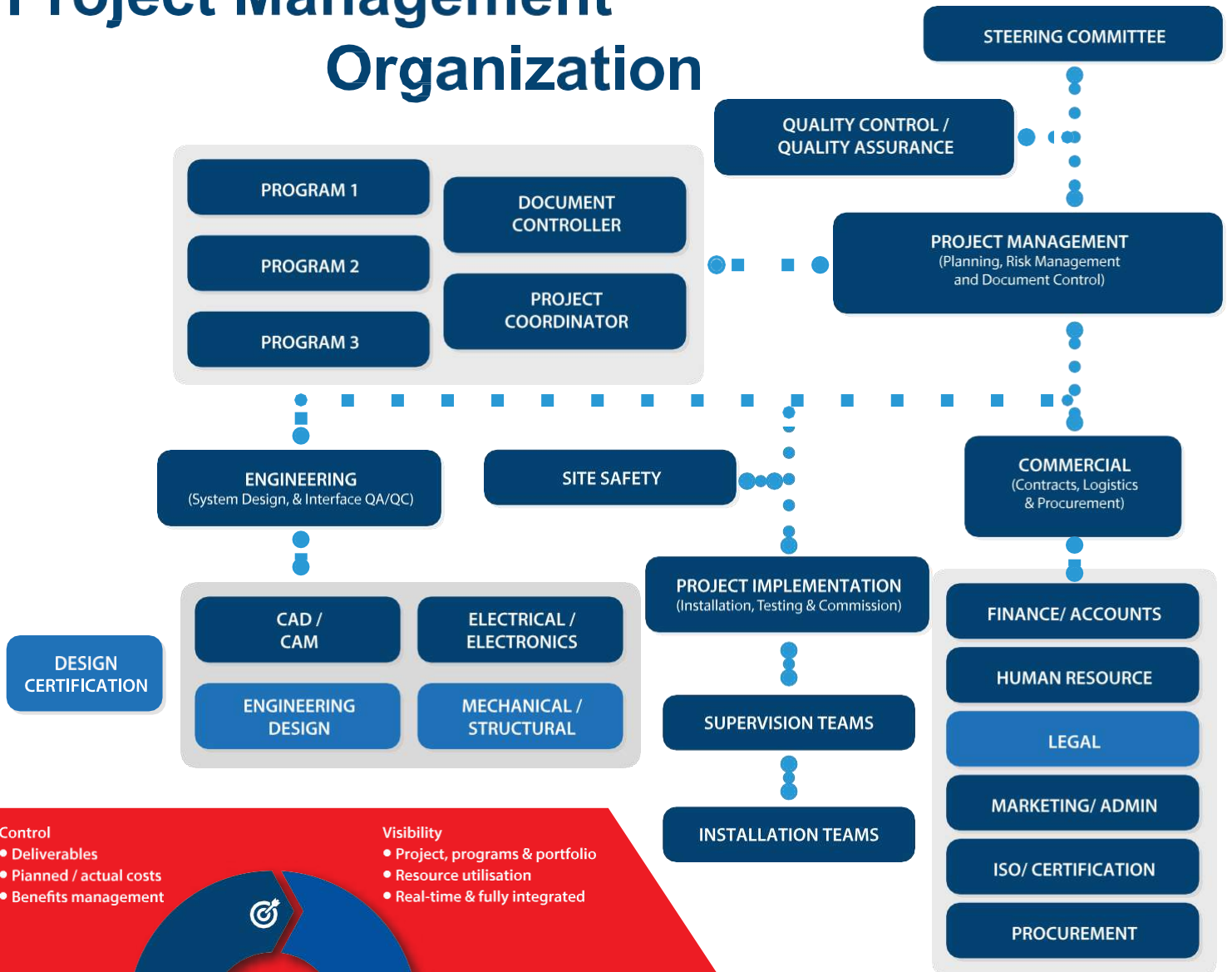


The Management Team and Our People

AZTI® has a pool of skilled professionals, engineers and technicians – who are committed to delivering quality in a timely and effective manner. It is led by a management team who has enormous experiences in various industries, mostly trained by MNCs, along with exposures competing in the international arena.

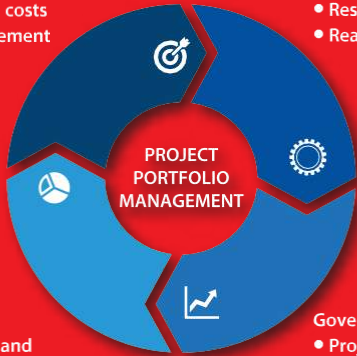
We are 100% staffed with local competencies. Our Project Managers are PMP certified. We are objective driven. We believe in continuous improvement.

Project Management Organization



- Control**
- Deliverables
 - Planned / actual costs
 - Benefits management

- Visibility**
- Project, programs & portfolio
 - Resource utilisation
 - Real-time & fully integrated



- Efficiency**
- Role-based demand
 - Capacity planning
 - Scheduling

- Governance**
- Project status reports
 - Structured approach
 - Scenario modelling



Platform Safety

What is Platform Hazard?

- 1. Crowded Platform = Distracted Passenger.*
- 2. Human Error/Accident.*
- 3. Sabotage or Deliberate action.*

Why Platform Safety Systems is important?

- 1. To Safe Life.*
- 2. To Avoid Revenue Interruption.*
- 3. To Safeguard Reputation and Avoid Claim/Compensation.*



Solution for Platform Intrusion

Active System

Reactive System

Description	Platform Screen Door	Platform Intrusion Emergency Stop (PIES®) a.k.a. Intrusion Preventive System (IPS™)
Security	Highest	Mid
Investment (CAPEX)	High	Low
OPEX	High	Low
Complication	High (Fully integrated systems with ATC)	Minimum (Independent reactive system that triggers SCADA and ATC systems)
Service Maintenance	High (Many moving parts eg. door, motor, belt, sensors)	Very Low (No active moving parts)

* Based on actual data compiled an existing system.

In terms of Investment, Reactive System has LOWER cost for total ownership.

Active System may provide better security; however, it has the HIGHEST cost for total ownership (initial CAPEX, Operating Expenses and Maintenance Cost).

WHAT IS PIES® / IPS® ?

Platform Safety System


P.I.E.S.®

Platform Intrusion Emergency Stop System a.k.a. Intrusion Preventive System (IPS®) to detect human intrusion on the guideway.

P.I.E.S.® was designed in Canada initially for Vancouver Skytrain to:

- Detect human beings on the guideway.
- Be immune to Electromagnetic Fields and Radio Frequency Interference.
- Be immune to environmental effects.

P.I.E.S.®/IPS® utilize a series of flexible mounted sensor panels located between running rail in front of platforms and attached a proprietary strain sensitive cable BLUCOR® to these sensor panels and developed electronic circuitry to eliminate environmental effects while still detecting human intrusion.



PIES[®] (Platform Intrusion Emergency Stop) System / IPS[®] (Intrusion Preventive System) is Proven, Simple, Reliable and Cost Effective.

PIES[®]
PROVEN SYSTEM
FOR MORE THAN 30
YEARS.

HIGH REALIBILITY
Has been
operational *Since*
1985 in Vancouver
Skytrain.

COMPLIANT To:
Safety Integral Level (SIL)
2

- EN 50121-4:2006
- EN 50126-1:1999
- EN 50128:2011
- EN 50129:2003
- MOT Indonesia

**EASE OF
MAINTENANCE**
Requires minimal
maintenance



**REGARDLESS OF
WEATHER
CONDITION**
Proven to be able to
work without degradation

**ADJUSTABLE TO
SUIT REQUIRED
SENSITIVITY**
The system is easily
adjustable for required
sensitivity.

**UNSUSCEPTIBLE TO
EMF/RFI INTERFERENCE**
Not susceptible to radio
and electromagnetic
frequency.

**CUSTOMISABLE,
SCALABLE for
REDUNDANCY AND
OTHERS**
Customisable to fit in
any track, which
provide flexibility and
cost efficiency.



PIES® / IPS™

in Malaysia

- Platform Intrusion Emergency Stop (PIES®) System was installed on Kelana Jaya Line (Putra Line) and has been operational since 1996.
- With a total of 19 + 13 stations installed with PIES®, it is maintained by Kelana Jaya Rail maintenance team.
- PIES has also been installed at 25 stations for Kuala Lumpur's Ampang Line and 11 stations for Kuala Lumpur's Ampang Line LRT Extension project.
- Next installation will be at 20 stations for Kuala Lumpur's LRT 3.
- PIES® was originally designed and manufactured by Alpha Zaicon Technology Inc. from Canada.
- There has not been any major repair of PIES® other than normal wear and tear eg. cable replacement and standard up keeping on parts replacement and maintenance.



- Kelana Jaya Rail maintenance team have adequate experience and knowledge to maintain the PIES® system.
- Alpha Zaicon Technology Inc. has since been acquired by AZTI Technology Sdn. Bhd. and all spare parts can now be readily supplied from Malaysia.



☎ +603-8066 5670

📄 +603-8066 5679

✉ lws@aztihsb.com

✉ williamfoo@aztihsb.com

✉ mglim@aztihsb.com

🌐 www.aztigroup.com