

Altech Advanced Materials AG (AAM) FRA: AMA1

Capital Investment

Company Presentation

Uwe Ahrens Managing Director AAM AG
19th June 2020, rev. 2 en





Advanced Materials
AG

Vision

- Altech has been founded with the vision of becoming the major supplier and standard setting world market leader in the High Purity Alumina (Al_2O_3) market segment.
- To empower our clients to make better, longer lasting and environmental friendly products with reduced CO_2 footprint.

Our goals:

- ✓ **Largest producer** of 4N HPA;
- ✓ **Technology leader** through technology protected by patents and licences;
- ✓ **Energy-efficient process** with green environmental label;
- ✓ **Cost leadership** through Single Step Process compared to conventional processes;
- ✓ **Owner of high quality resources**, Kaolin mine in Australia;



Altech Group



Sustainability

We advocate ourselves as part of the **Green Deal** of the European Union for the gradual implementation of CO₂ neutral industrial production of Li-Ion Batteries!



Altech Group

Entry Barrier through Technology Leadership

- 1 Patent approved, 7 pending
- Unique Process Know-how
- IP in finishing line and crystal morphology
- Decade research advantage



Investment opportunity with Altech into the growth markets of Li-Ion Battery & LEDs

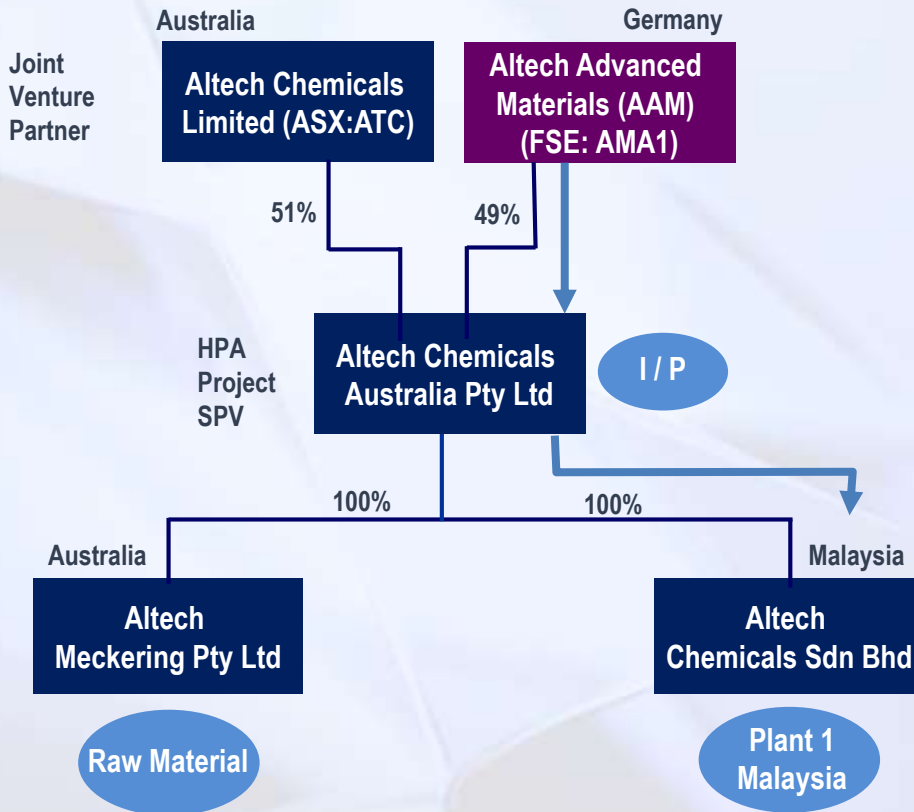
Environmentally friendly high-performance nano-ceramic made by the patented Altech manufacturing process for use in Li-Ion batteries and LEDs





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German Public Company (AAM)



- Max. 49% equity share for 100mUS\$(90m€)
- Min. 10% equity share by AAM in Altech Chemicals Australia Ltd.
- Plant 1 under construction in Malaysia
- Plant 2 under design in Germany
- 100% off-take for 10 year production by Mitsubishi
- Senior Debt 190mUS\$(171m€) financed by KFW IPEX Bank with low interest EPC Hermes coverage.
- The growth strategy is to participate in the rapidly growing EV market in general and in European battery cell production in particular
- Strong competitive advantage through cost leadership, exceptional purity and unparalleled environmental friendliness.





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Altech Advantage

conventionel production today, environmental hazardous & expensive



Bauxit

Alumina Refinery



Smelter Grade Alumina
99.5%

Alumina-Smelter



Aluminum Metal

Alumina Dissolution



99.99% (4N)
HPA

Aluminum as raw material
2.5t toxic waste (*red earth*)
per ton HPA
High Energy Process
High Purity Risk <99.8%
No raw-material (Bauxite)
available in Europa
NORM - Naturally occurring
radioactive material



Patented Altech Process, energy saving & sustainable



Kaolin



99.99% (4N)
HPA

50%-70% cheaper manufacturing cost

Raw Material Kaolin (Clay)
Closed loop process 100%
Recycle
100% use of raw material , zero
waste.
30% in HPA und 70% Silica
Raw material readily available
in Europe
45% reduction in CO₂
41% less energy consumption



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Use of Altech Nano Ceramic

The Product

99.99% (4N) pure Alumina (Al_2O_3)



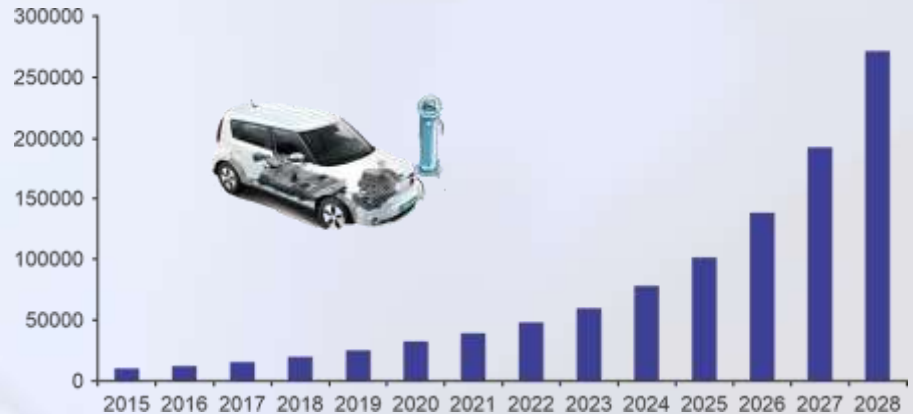


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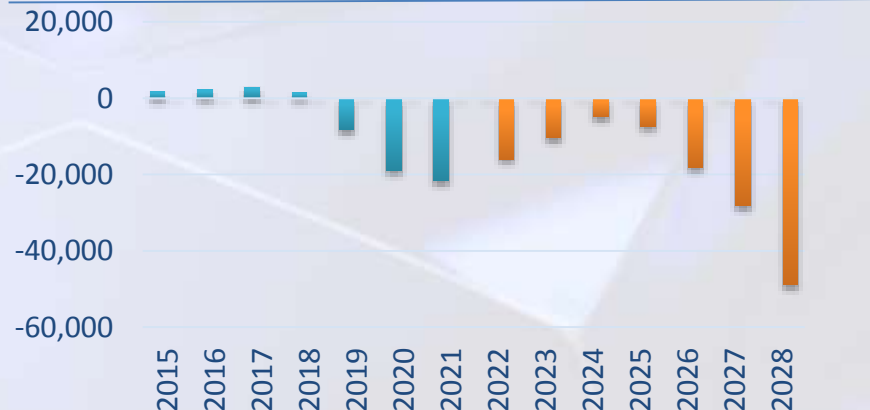
Positive Market & Price Development

- 30% CAGR growth
- 272,000 tpy by 2028
- LIB Separator - 187,000 tpy (68%)
- LED Demand - 85,000 tpy (32%)
- Sellers Market with positive price pressure
- Supply deficit 20.000 t in 2021 und 50.000 t in 2028

Demand Growth



Supply Deficit Analysis



Altech Market Segment



Altech

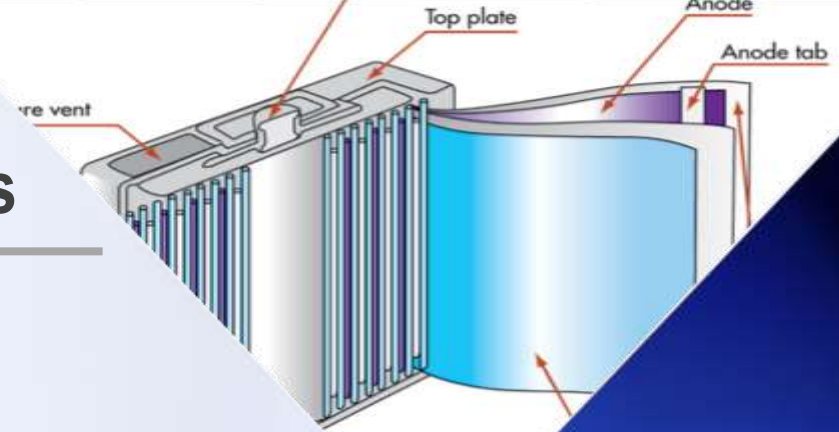


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Potential Clients

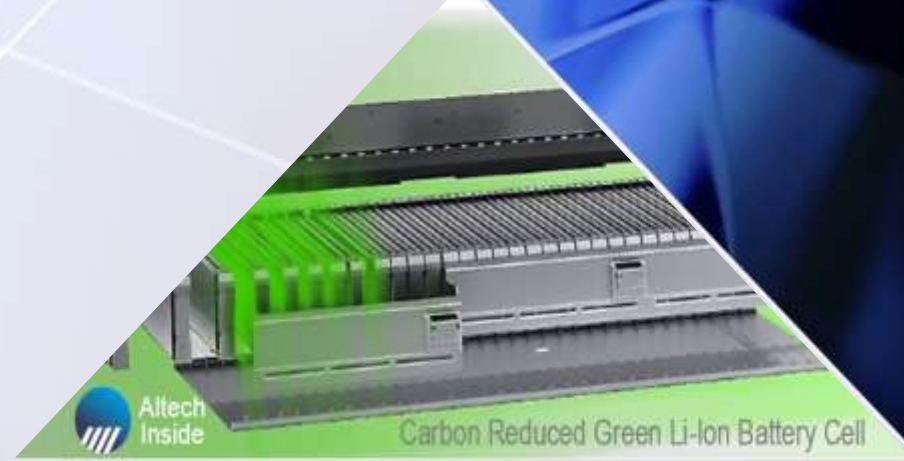


Unique Selling Points



- Highest Quality
 - higher Battery Safety
 - better Battery Performance
 - longer Battery Life
- Lowest Manufacturing Cost
- Environmental Friendly, CO₂ Reduced Foot Print
- Multiple Application with Defined Morphology
- Zero Waste
- Responsibly Sourced

**ALTECH
USP**





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Success Factor „Green“

- Altech is a certified „Green Investment“ (CICERO 05.2020)
- Altech does not use Aluminum / Bauxite
- 46% less green house gases
- 41% less energy consumption
- World wide used LED (LED = Light Emitting Diode)
- Process media – HCL 100% recycled and re-used
- CO₂ neutrality / reduction is the declared goal of the European Automotive Industry (European Battery Alliance 2030)

BATTERY
2030+



*CICERO
Shades of
Green



Project Status



- Plant 1, 4500 t/y is under construction in Johor Malaysia and all building and operating licenses, permits have been issued.
- Plant 1 is exempt from all taxes and duties for 10 years
- 100% of the Manufacturing capability has been pre sold to Mitsubishi Australia Ltd for 10 years.



- Plant 2, 5500 t/y for Saxony, Germany is in design stage
- Plant 2, industrial 13 Hectare site option, Schwarze Pumpe
- Negotiations with Distribution Partners are ongoing

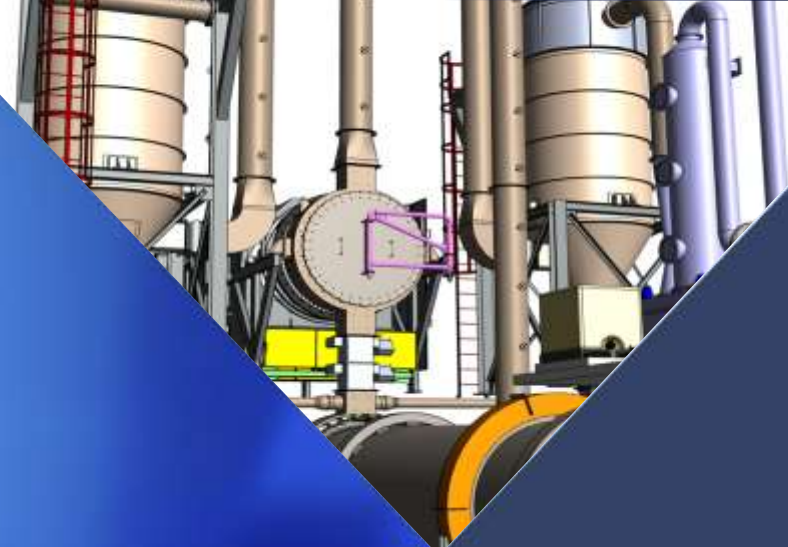


Financial Indicators & Project Economics

Altech



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Capital Requirements & Use

100mUS\$(90m€) Capital Increase

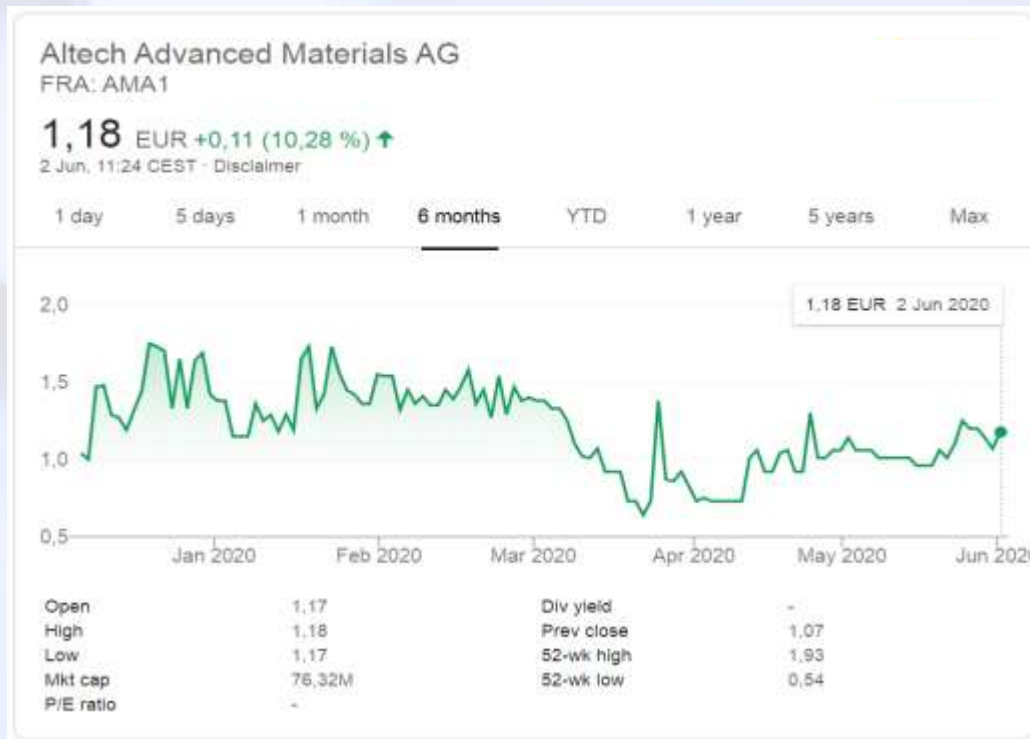
Altech Chemicals Ltd HPA Project Application and Source of Funds

| | Source (US\$m) |
|--|--------------------------|
| Senior Debt (KfW IPEX-Bank) | 190 |
| Mezzanine Debt (Macquarie) | 90 |
| SMS Equity (agreed additional contribution) | 10 |
| AAM Investment option (assumes 49%) | 100 |
| Total Funds Sourced | 390 |

| Application (US\$m) | |
|-------------------------------|---------------------------------------|
| 275 | Project Capex (net of Stage 1) |
| 74 | Reserve Accounts (pre-fund) |
| 41 | Finance fees and Euler Hermes |
| 390 | Total Funds Applied |

Lead Placement Agent





Capital Increase/ Share Placement

- Frankfurt Stock Exchange
- 63.102.080 New Shares
- (ISIN: DE000A2LQUJ6/ WKN: A2LQUJ)
- Legal Entity („LEI“):
529900PVUKFVG9GDEQ03
- Bafin Prospectus 19.Mai 2020
- Subscription Offer 1,10€ per share
- Privat Placement 1,20€ per share
- Consecutive until 10.09.2020

Detail Information and Bafin Prospectus :

<https://www.altechadvancedmaterials.com/de>

https://www.altechadvancedmaterials.com/sites/default/files/200518_AAM_Prospekt_komplett.pdf





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Project Economics

Plant 1

- Plant 1 Investment 275 Mio. US\$*
- Annual Production 4500 t/J
- Production Cost - US\$ 8,55/kg
- KfW IPEX Bank Fin-Model Base Price - US\$ 26,9/kg
(conservative)
- Gross Margin 68%

- NPV 505 Mio.US\$ pre tax
- Return (IRR) 22%
- Payback 3,9 Jahre
- EBITDA 76 Mio. US\$ per Year @ KfW FM Preis

Actual Market Price 40 US\$/kg

Production Reserve +50%

(excl. cost of Finance)*



Sensitivity - Analysis

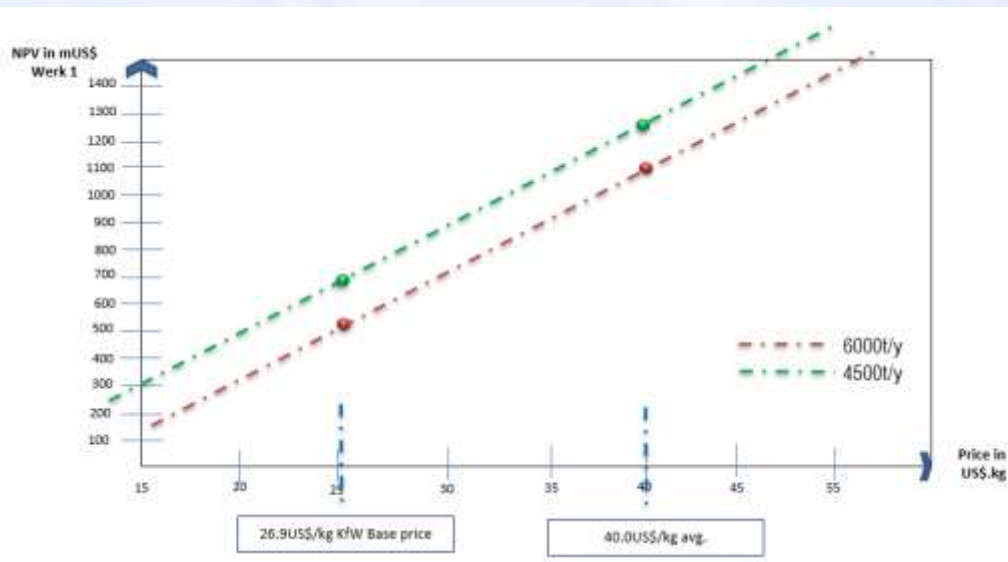
Basis Plant 1



The Production Cost of 8,55US\$/kg are not significantly influenced by a single cost factor.

The mines / mining tenements are free hold, fully owned without limitations and no encumbrance by Altech Australia Ltd.

Staff expense will decrease through time as international experts can be replaced by qualified local staff.



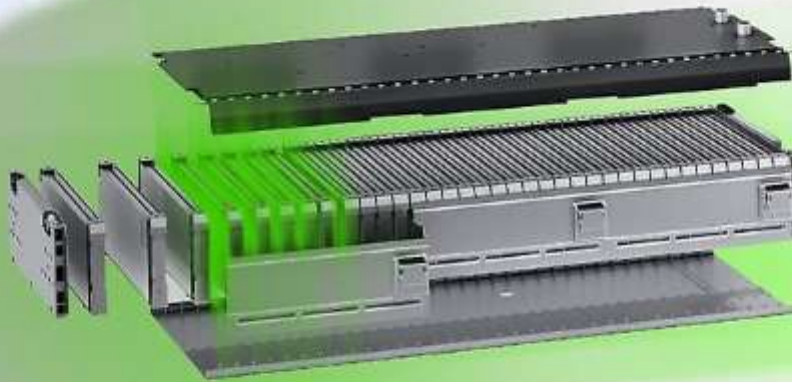
Market Price and Production Quantity have the highest impact on profitability

Market Price varies from 15US\$/kg to 100US\$/kg depending on purity, application and crystal morphology

Today's 4N avg. Market Price 40 US\$/kg
Production Reserve +50%



Thank you For Your Interest



Carbon Reduced Li-Ion Battery Cell
ALTECH INSIDE





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Supervisory Board (AAM)



Dr. Burkhard Schäfer
Chairman of the Board

Studied business administration at the University of Mannheim from 1985 to 1991, followed by a doctorate in 1994. Established several innovative companies in various fields. 1993 to 2002 foundation and management of PROBUY, the largest European purchasing service provider association with more than 100 agencies. Dr. Schäfer was appointed to the Supervisory Board of Altech Advanced Materials AG (formerly Youbisheng Green Paper AG). In addition to other supervisory board mandates, Dr. Schäfer has been chairman of the supervisory board of Altech Advanced Materials AG since 2019.



Mr. Nikolaus Graf Lambsdorf,

Ambassador (retired) studied German, political science and economics (Dipl.pol., Dipl. Rer.pol.) from 1984 was a member of the German Foreign Service, deployed at various embassies (Jakarta, Tallinn, Washington) with a focus on economics and finance, followed by assignments with the UN and the EU in Bosnia and Kosovo. From 2007 to 2010 Graf Lambsdorff was ambassador to the Republic of Moldova, then special ambassador for the former Yugoslavia, Turkey and the EFTA states. From 2013 to 2017 he was consul general in Hong Kong and Macau, then ambassador to Malaysia until July 2020.



Dieter Rosenthal

Mr. Rosenthal was born in Sieg and studied mechanical engineering at the University of Siegen. Since 1979, Mr. Rosenthal has been with the SMS group GmbH as Head of Overall Group Development and Head of the Flat Rolling Mills and Strip Processing Divisions. From 2000 to 2017 he was a member of the Executive Board. Mr. Rosenthal has been a member of the supervisory board of SMS group GmbH since 2017. At the Annual General Meeting in July 2019, he was appointed a member of the Supervisory Board of Altech Advanced Materials AG.



Supervisory Board (AAM)



Wilko Stark

Mr. Stark studied mechanical engineering at the University of Stuttgart. He started his professional career at the Boston Consulting Group. Afterwards he held a number of important positions at Volkswagen AG and Daimler AG. Most recently as divisional director for Mercedes-Benz Cars, purchasing and supplier quality. Mr. Stark was appointed to the Supervisory Board of Altech Advanced Materials AG in April 2020.



Werner Klatten

Mr Klatten studied Law from 1966 to 1973 at the Universities of Hamburg and Berlin. After his studies he worked as a lawyer and held a number of important positions in the German media industry, e.g. at Sat.1 GmbH and EMTV AG. Most recently, Mr Klatten was Chairman of the Management Board of Deutsche Sporthilfe, moving to the Supervisory Board as Chairman in March 2010. Mr Klatten is also Chairman of the Advisory Board of teNeues Media GmbH & Co. KG, Chairman of the real estate company Puma Brandenburg Ltd. and Chairman of the Advisory Board of Tamara Comolli Fine Jewelry GmbH. In November 2019, Mr. Klatten was appointed to the Supervisory Board of Altech Advanced Materials AG.



Management (AAM)



Iggy Tan B.Sc MBA GAICD

Director

Mr Tan has a Bachelor of Science degree from the University of Western Australia. He also has a Master of Business Administration from the University of Southern Cross, New South Wales and is a Graduate from the Australian Institute of Company Directors. Mr Tan is a highly experienced mining and chemical executive with a number of significant achievements in commercial mining projects such as capital raisings, funding, construction, start-ups and operations. Mr Tan has over 30 years' chemical and mining experience and been an executive director of a number of ASX-listed companies.



Uwe Ahrens, Dipl.-Wirtsch.Ing.

Director

Mr. Uwe Ahrens is an experienced industrial manager of Melewar Industrial Group and Managing Director of Melewar Integrated Engineering Sdn Bhd. He is also a member of the board of several other public limited companies. Mr. Ahrens is a Dipl. Wirtsch.-Ing. (MB) with a degree from the Technical University of Darmstadt, Germany. After his graduation, Mr. Ahrens joined KOCH Transporttechnik GmbH in Germany, an international mechanical and plant engineering company which is now part of the FLSmidth Group, where he held senior management positions for 12 years followed by joining the Khyra/Melewar Group in Malaysia as Chief Technical Officer and holding a variety of director and management positions.



Hansjörg Plaggemars

Director

Mr Plaggemars is an experienced manager of companies. He studied business administration at the University of Bamberg from 1990 to 1995. Mr Plaggemars has been a freelance management consultant since June 2017 and is a board member of various companies within the scope of projects. Until April 2018, he was a member of the board of Delphi Unternehmensberatung AG and previously a member of the board of Deutsche Balaton AG

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Altech Chemicals
Limited

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