## The Way Forward in the Zircon Industry





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- changes in product pricing assumptions;
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This presentation uses non-IFRS financial information including mineral sands EBITDA, mineral sands EBIT, Group EBITDA and Group EBIT which are used to measure both group and operational performance. A reconciliation of non-IFRS financial information to profit before tax is included in the supplementary slides. Non-IFRS measures have not been subject to audit or review.

This presentation constitutes a summary of Iluka's financial performance and should be read in conjunction with the Iluka Resources Limited ASX Preliminary Final Report – 31 December 2014, which contains financial statements and consolidated financial statements of the group.

### Outline



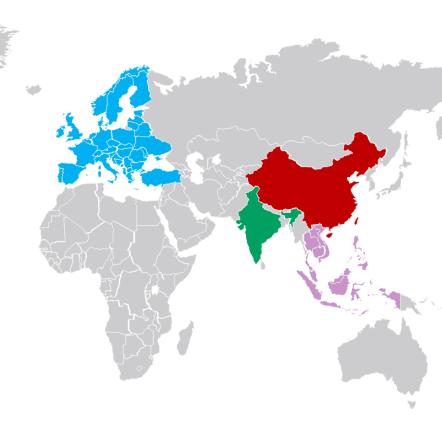
- Zircon Demand
- Zircon Supply
- Need to Adapt

### 1. Iluka Tile Study



#### PROPRIETARY CERAMIC TILE STUDY

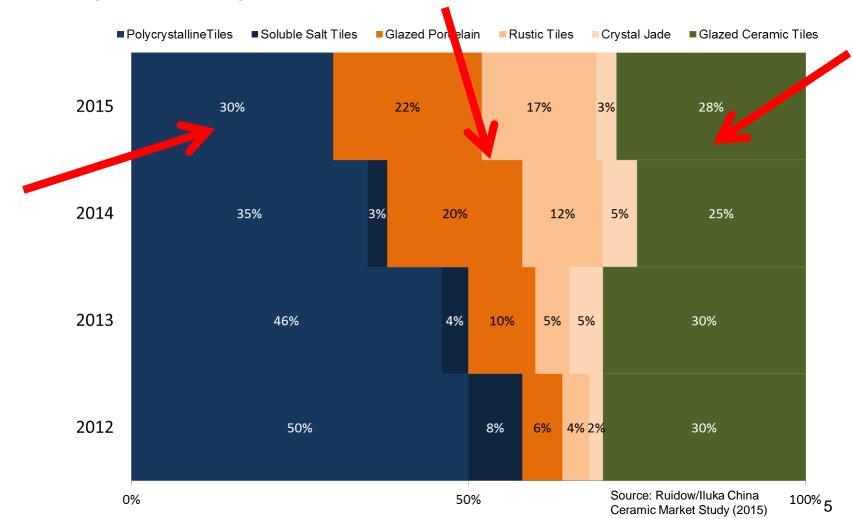
- 4<sup>th</sup> annual study on ceramic tile.
- Focusing on China (4 regions),
  SEA, India and Europe representing
  72% of world tile production
- In 2015 large scale study in Europe, in particular Spain, Italy, Turkey.
- Zircon loading of various type of tiles.
- Trend from one year to the other.



# ILUKA

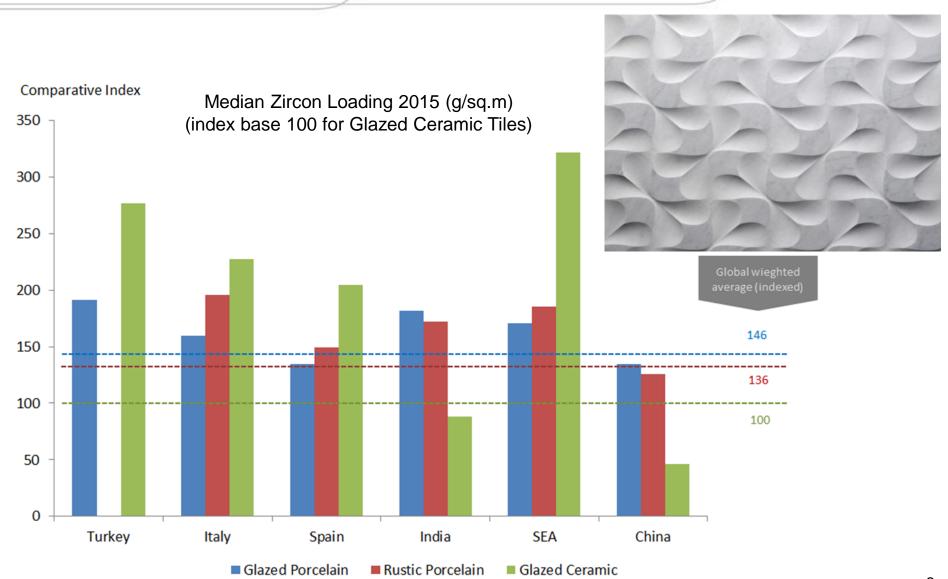
### 1. Iluka Tile Study

In China, continuing shift towards glazed porcelain & rustic tiles, albeit slower



# ILUKA

### 1. Iluka Tile Study



### 1. Iluka Tile Study



#### Key messages:

Stable loadings since 2012

- High end and top brands are higher
- Variations as per colour and texture trends
- Digital printing sustains zircon usage
- No sign of substitution

#### PROPRIETARY CERAMIC TILE STUDY



1. Iluka Tile Study 2. Zircon Processing





#### Operating Model with Overcapacity

Milling

Fused Zirconia

ZOC

Casting





**BEFORE: Invest Ahead of Demand** 

#### NOW:

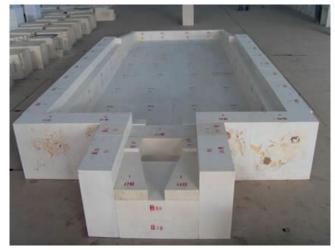
- **Cost Optimisation**
- Swing Capacity (high cost)
- Low Return on Investment

1. Iluka Tile Study

2. Zircon Processing







#### Trends in Concentration influenced by

- × Cultural resistance
- ✓ Profitability pressure
- ✓ Environmental regulations
- ✓ Technology developments





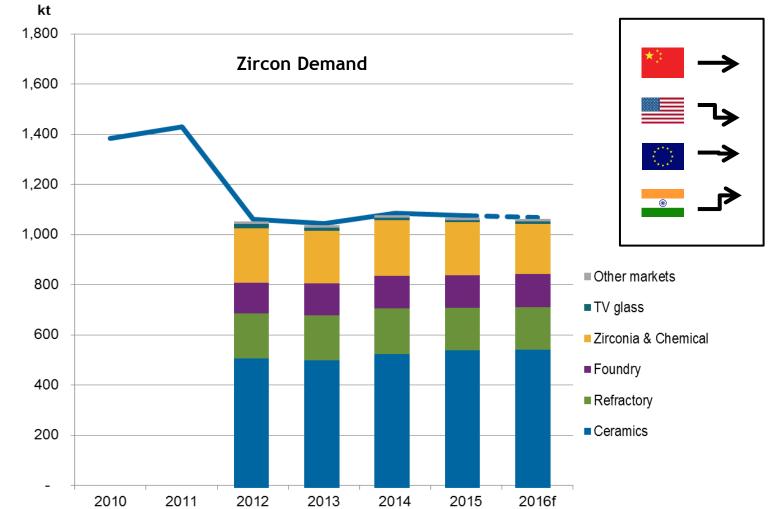




1. Iluka Tile Study 2. Zircon Processing

3. End-Market Growth

#### Since 2012 the growth of zircon demand has been very modest



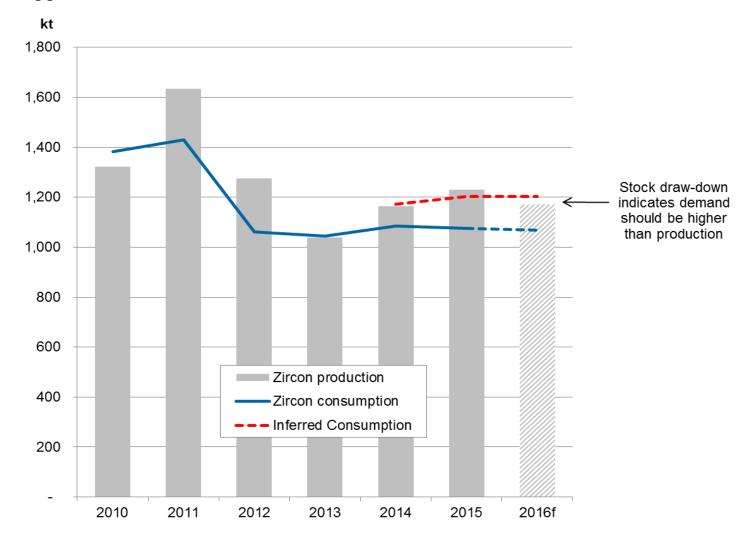
Source: TZMI Q2 2016



1. Iluka Tile Study 2. Zircon Processing

3. End-Market Growth

#### Iluka's analysis suggests demand has been under estimated



Source: Iluka estimates, TZMI, company reports

### Outline



- Zircon Demand
- Zircon Supply
- Need to Adapt

### Zircon Demand Zircon Supply



#### 1. Zircon Deposits

- The highest quality and most accessible deposits are mined out
- ✓ There is plenty of zircon left in the world... but
- Capital required to develop new projects is higher per tonne of product



#### Unforeseen events translate in costs

- Governments modify the rules of the game
- Strikes and social unrest

## Zircon Demand Zircon Supply



1. Zircon Deposits 2. Environmental Pressure



#### Rehabilitation is essential... but is also increasingly expensive





External pressure related to the environment is ever growing

- **Droughts**
- Floods
- Community

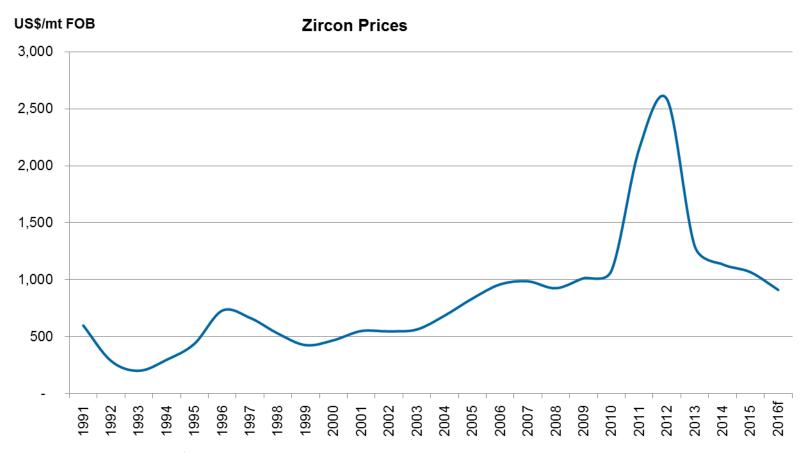
## Zircon Demand Zircon Supply



1. Zircon Deposits 2. Environmental Pressure

3. Cyclical Effects

The belief that the peaks of the cycle guarantee the viability of a project is no longer valid... The recent peaks are shorter and induce substitution.



### Outline



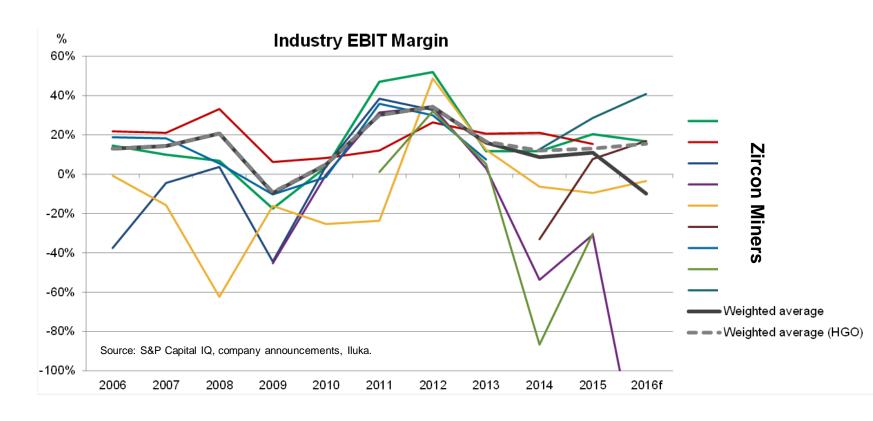
- Zircon Demand
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## Zircon Demand | Zircon Supply | Need to Adapt



### 1. Capital Discipline

The Zircon industry can't escape the change Miners and processors alike need to have a very disciplined approach to return on capital



The Industry Margin of -10% in 2016f is equivalent to 2009 levels

### Zircon Demand | Zircon Supply | Need to Adapt

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1. Capital Discipline | 2. Developing Value







- Value protects from Substitution
- **Environmental Impact**
- Better rather than More
- Technology in Processing

### Zircon Demand | Zircon Supply | Need to Adapt



1. Capital Discipline 2. Developing Value

3. Industrial Mineral





#### From Commodity to Industrial Mineral

- **Technical Development**
- Commercial Initiative
- Sustainable Practices
- Financial Discipline

lluka will remain a leader in this evolution



Christian Barbier, General Manager Zircon Sales christian.barbier@iluka.com

