

## Preliminary Agenda\*

### Monday 19th March

#### Session 1 – Rise of the Green Economy

##### 09:00 The green transformation

The rate at which the world is adopting green and more efficient alternatives in energy generation, distribution, storage, transportation, manufacture and urban planning, is unprecedented. The upswell in demand continues, but is the materials world ready?

##### Panel discussion: How will growth in the global green economy affect materials demand?

- How will the green transformation differ from economic cycles and periods of industrialisation?
- As the largest commodities consumer in the world, how will the rate of China's transition to green technology impact its commodities demand?
- What are the technical, economic and environmental limitations to a renewables-led world?
- Can the metals and mining industry supply the needs of the green economy sustainably?
- To what extent do the sustainability aims of miners, producers and consumers overlap and why a multi-sector approach to sustainability and data sharing will yield the best results

##### 10:00 Refreshment Break

#### Session 2 – The Urban, Transport & Energy Transformation

##### 10:30 Global demographic and urbanisation trends – how, where and how many by 2050?

##### 10:55 Examining the state-of-the-art in smart and sustainable buildings and cities – what are the implications for materials?

##### 11:20 The future of transportation

As one of the most valuable metals markets, this session analyses trends such as light-weighting, powertrain options, automation, and sharing, to better understand the future of transportation and the future of metal consumption in the sector.

- How will the automotive world change in terms of design, ownership, level of automation and powertrain?
- How does the powertrain mix affect materials design?
- What does the roadmap look like and how will this play out regionally?
- Multi-material future - how are aluminium, steel and carbon fibre being used in conjunction to create the best value in automotive?
- Ride-sharing apps and their impact on the sector

##### 12:30 Lunch

##### 14:00 Keynote presentation: What implications does 'Made in China 2025' have on materials demand?

#### Session 2 (continued)

##### 14:30 Battery metals and renewable energy production

Following the significant decreases in the cost of solar, and significant increases in the adoption of electric vehicles, this session looks at the materials implications of renewable and smart grids both in terms of materials demand and the role that metals plants will play in these grids.

**Discussion:** How will the way that energy is produced, stored and consumed change, and what is the impact on metals demand and production?

- Assessing the metal intensity in renewable energy technologies
- Examining the state-of-the-art in battery technology – which commodities are the winners and which the losers, under different technological scenarios?
- How will the way that energy is produced and consumed change? What are the implications for metals production?

##### 15:30 Refreshment Break

##### 16:00 Workshop 1: New Energy Vehicles & Metals

The opening workshop will provide delegates with forecasts for the metals intensity of different engine and automotive body solutions. Further insight will then be delivered on the likely renewable and transportation mix, before analysing how metals demand changes as a consequence of changes in the share of hybrid vs electric vs ICE.

**Key take-away:** Quantify how requirements for steel, aluminium, copper, lead, lithium and other metals change under different market share scenarios.

##### 17:00 Roundtable: Future-Proof Portfolio

Building on from the opening workshop, this roundtable discussion will commence with a high-level price outlook for over 30 commodities.

- Which metals will be the winners and which will be the losers as renewable intensity steps up a gear?

##### 18:00 Drinks Reception

## Tuesday 20th March

### Session 3 – Investing in the Future

#### 09:00 Capital and the future of metals

As pressure to decarbonise mounts and the pace of investment in the green economy increases, changes in the future of metals and commodities demand will be inevitable. What investments are being made by resource-based companies to maximise the value of current assets and take advantage of growing markets?

- Examining the investments being made by resource and metal companies – to what extent do they safeguard current markets?
- How will the adoption of renewable energy solutions in energy generation and transportation change the type of clean technologies that are needed, and what are the commodity specific implications?
- What is private equities' view on the green economy and metals demand?

#### 10:00 Modelling the commercial impact of environmental regulation

Adapting business strategies to the increasing pace of regulatory change and realistic environmental policy scenarios is one of the most difficult challenges facing the metals and mining supply chain. Policy will impact economic and financial performance, it will differ between regions, commodities, position on the value chain, and has profound implications for investment decisions and asset allocation.

- How will detailed Paris 2015 policy implementation choices impact supply conditions in ferrous and base metal markets, including: margins, production and investment choices, and patterns of international trade?
- Detailing scenarios based on policy choices in transportation, construction and the energy sector – how does policy affect demand?
- What are the opportunities to mitigate competitiveness issues through capital investment, process innovation and portfolio optimisation?

#### 10:45 Refreshment break

### Session 4 – Supplying the Future

#### 11:15 Green provenance

A green provenance and supply chain transparency are key issues for advanced consumers and governments. However, guaranteeing a product's sustainable credentials from mine to market remains a challenge. Whilst individually, many mines, mills and smelters are operating at or beyond prescribed environmental standards, the potential to work more collectively could bring even greater rewards.

- Mitigating the environmental impact of bringing new materials to market
- Analysing the contribution of the green supply sector in creating efficiencies in water, energy and remediation
- What is the value of green segmentation and how can it be quantified?
- Assessing lifecycle assessment and total cost of ownership across materials
- Does the ability to prove a reduced environmental footprint effectively de-commoditise primary production?

#### 12:30 Recycling and reuse

This discussion will provide delegates with practical insight into the evolution of key ferrous and non-ferrous scrap markets and place those changes within the framework of the supply chain at large

- Optimising value in use and recycling economics. How do these compare between steel, aluminium and other metals?
- Will long-term increases in recycling rates and secondary materials availability, hold back demand from primary metals?
- Exploring strategies to optimise reuse
- How will scrap supply vary by commodity, and what is the future of scrap collection and processing in China?
- Analysing the state of the art in molecular recycling
- Converting CO<sub>2</sub> into plastic and other developments that create value from waste products

#### 13:30 Lunch

### Session 5 – Innovative Disruption

#### 14:30 Networked future and materials

'Big data' will also play a huge role in how materials and goods are produced and used. This session will provide insight into how this growth in information, and the speed at which manufactures are able to react to it, may disrupt metals markets.

- How will consumers of materials adapt their products to the increasing amount of real-time information that is generated?
- How will this change traditional commercial modes between metals producers and customers?
- Are we building the right type of mill, in the right places, and mining the right commodities?
- What does the materials world look like in 2035, in terms of recycling, lead times, inventory management, materials demand and geography?

#### 16:00 Conference closing address – Developing a framework for measuring performance

#### 16:30 Close of Conference