Introduction to the Tata Group

One of the world’s fastest-growing and most reputable corporations

- Founded in 1868
- Operations in more than 100 countries and 600,000 employees
- Total revenues of more than $109 billion (68% from outside India)
- Ranked world’s 11th most reputable and 17th most innovative company
- Promoter company Tata Sons 66% owned by philanthropic trusts
- £100 million invested in community projects every year
Tata Steel Group

One of the world’s most geographically-diversified steel producers

- 11th largest global steel producer
- Annual crude steel capacity of more than 28 million tonnes
- Around 75,000 employees
- Manufacturing operations in 26 countries across five continents
- Present in both mature and developing markets
- Turnover in 2015-16: approximately $17.7 billion (€15.5 billion)
- Fortune 500 company
Tata Steel: Europe’s second largest steel producer

Products and services that create advantage

Our advanced capabilities

- Comprehensive range of steel products and related services supplying into demanding markets
- Manufacturing sites in the UK and the Netherlands, Germany, France, Canada the US and Belgium. Presence in more than 35 countries
- 12.9mtpa crude steel capacity
- 2015-16: Turnover €8.66 billion
- 23,000 employees
Tata Steel in Europe - Our key markets

Serving the most demanding markets worldwide

[Images of different market segments: Automotive, Consumer products, Construction, Lifting & excavating, Defence & security, Energy & power, Packaging]
Tata Steel in Europe: sales by market sector

Market sector breakdown (% sales volume)

- Manufactured goods: 31%
- Automotive: 29%
- Construction: 22%
- Packaging: 13%
- Lifting & Excavating: 3%
- Energy & Power: 1%
- Other transport: 1%

Manufactured goods include sales to General Industry, Independent Steel Service Centres and Semi Finished sales
Other transport includes Defence & Security and Shipbuilding
Packaging includes Consumer and Industrial Packaging
Research & Development in Europe

Research to support all of Tata Steel’s European operations

- UK centres:
  - Warwick Technology Centre
  - Swansea Technology Centre

- Netherlands – IJmuiden

- Warwick Technology Centre – University of Warwick Science Park, Voyager Building

- Co-location with University of Warwick to share facilities and expertise in steel making, metallurgy, processing and data science
How we work

Ironmaking & Raw Materials

Energy & Power

Cogent (Electrical Steel)

Automotive

Steelmaking & Casting

Packaging

Industry Strip

Construction

Strip Rolling

Thrust

Coatings

Lifting & Excavating
Warwick Technology Centre

- Expertise in Data Science facilitating Industry 4.0
- Central location for Down Stream Operations support
- Co-location with WMG and The Advanced Steel Research Centre
- Close proximity to other Tata Group companies at UoWarwick campus

- Expertise in Automotive Product Engineering
- Centrally located. 70% of UK customers within 50 miles
- Collaboration with Chair Professors and sponsored PhDs
- Example collaborative projects including fuel cells and graphene.

- Expertise in Advanced Coating and Metallurgy product development
- Maximising innovation through co-location with Marketing
- Jointly accessing Government funding
- Resident Engineer and joint projects with JLR and TMETC
Current specific research areas

Iron & Steelmaking
- Process refinement
- Smart sensing
- Surface quality measurement

Chemistry & Metallurgy
- Product property control
- Process control & optimisation
- Coatings / product enhancement

Data analysis & Industry 4.0
Material handling & tracking
Circular economy
Customer application support
Our unique research challenges

- Scale & volume
- Environment
- Speed
- Temperature
- Complex manufacturing processes

- Delicate chemical and physical change
- Accuracy
- Exact material properties
- Translating lab to industry
- Control
Collaborating with us

- Tata Steel needs to collaborate with others to achieve the mission of becoming Europe's leading steel manufacturer.
- All TRL levels supported. R&D in the UK focuses on:
  - Data Science and Industry 4.0
  - Smart cities
  - Circular economy
  - Process measurement and implementation
  - Material development – including processing
  - Equipment monitoring techniques
- Already an active participant in Innovate UK, EPSRC, H2020 and RFCS projects
Any questions?

Together we make the difference