



FUTURE STEEL FORUM 2026

# FUTURE-PROOFING STEELMAKING TOGETHER: TATA STEEL UK & ABB

Port Talbot as a blueprint for sustainable, future-ready steelmaking

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# Why does the Port Talbot transformation matter?

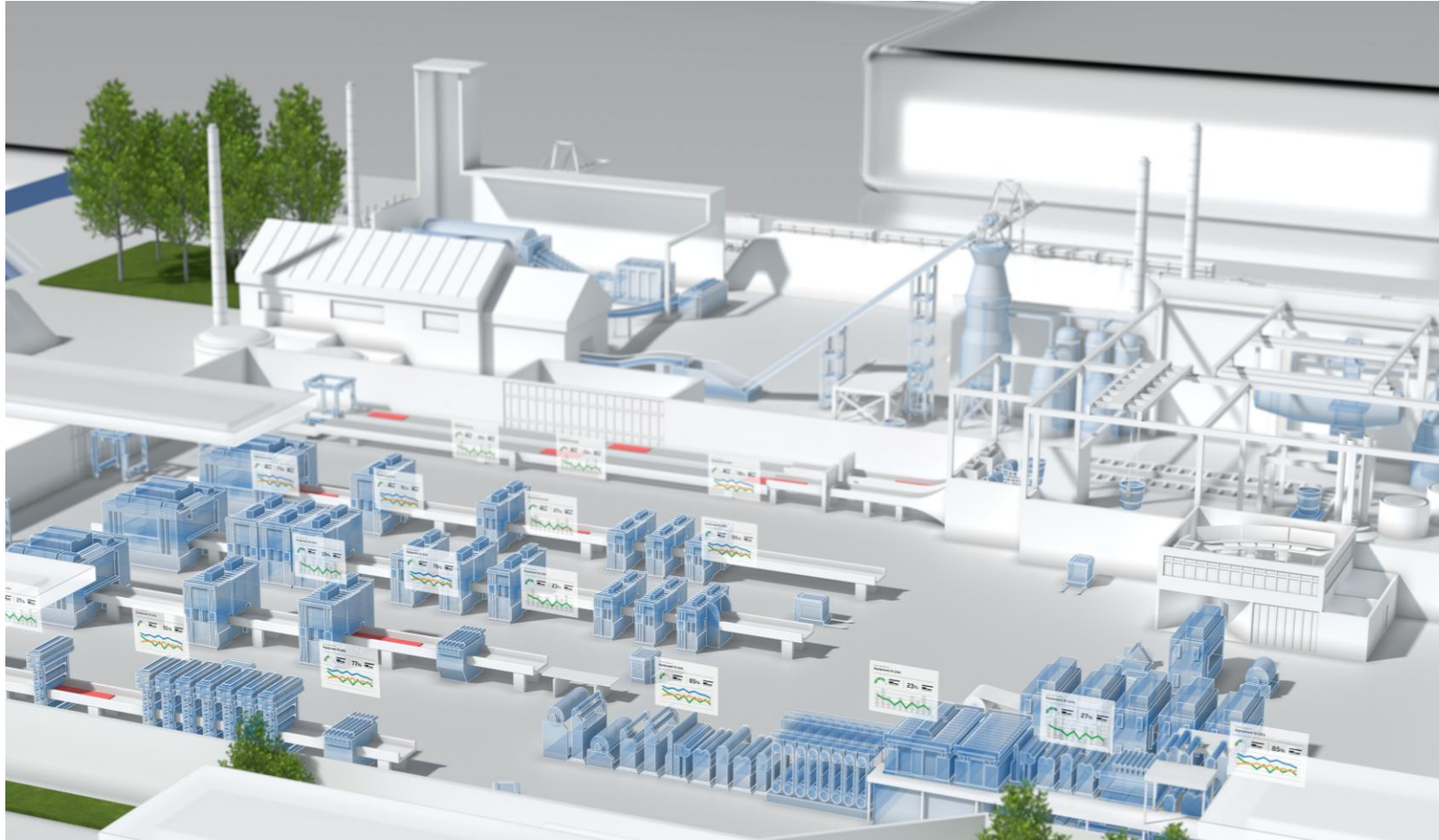
Reshaping how steel will be made in the UK and beyond

- Once in a generation transformation
- Replacing traditional blast furnaces with electric arc furnace steelmaking
- Circularity, decarbonization and long-term competitiveness
- How electrification and automation can shape the plant of the future



# What 'future-proofing' means in practice

From ambition to execution



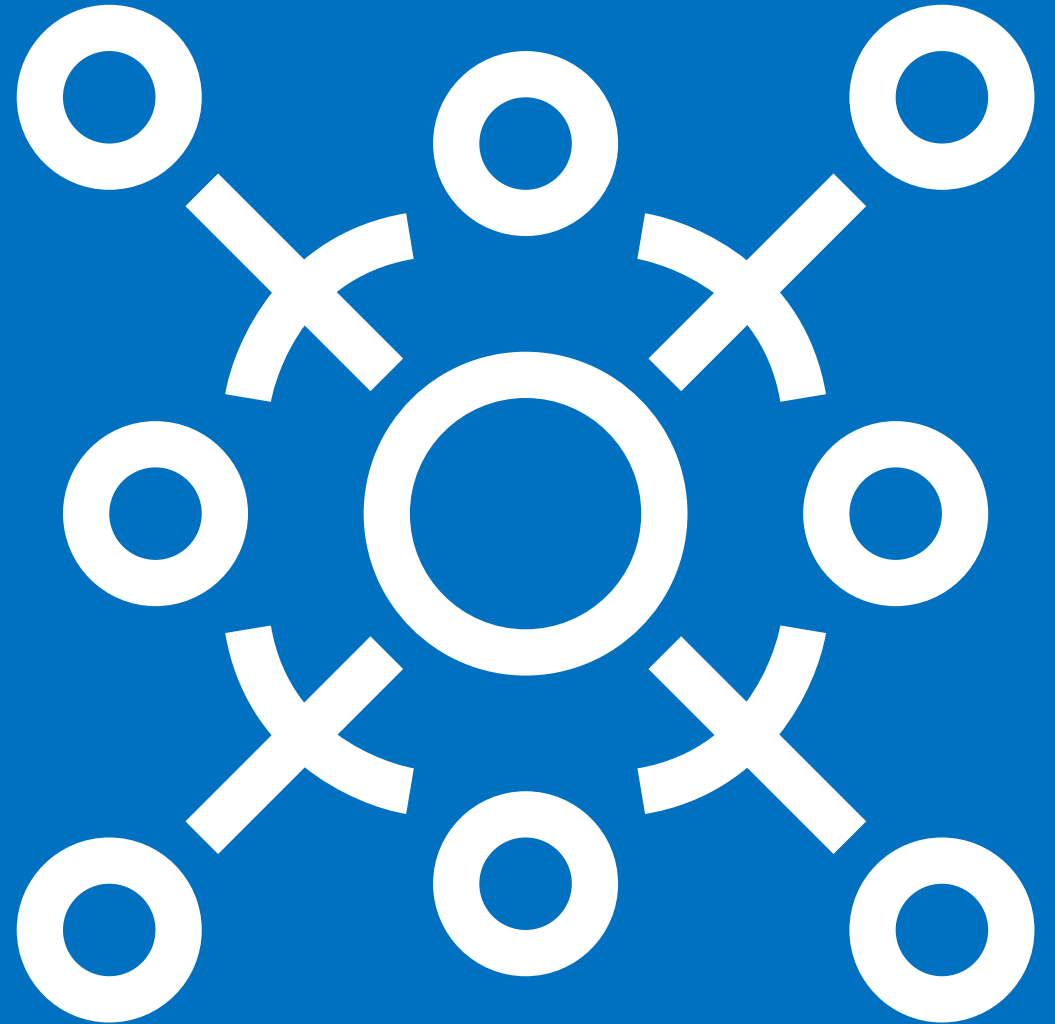
- Technologies ensuring safe, stable operations today and adaptable for tomorrow
- Operators at the center supported by augmented decision-making and automation
- One integrated operational environment that attracts the next generation and removes silos

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## Making transformation possible

Integration matters as much as individual technologies

- Multiple technologies and specialist suppliers involved
- Integration, not just innovation, is the real challenge
- Systems must work together creating the best possible operating environment



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# Electric arc furnace

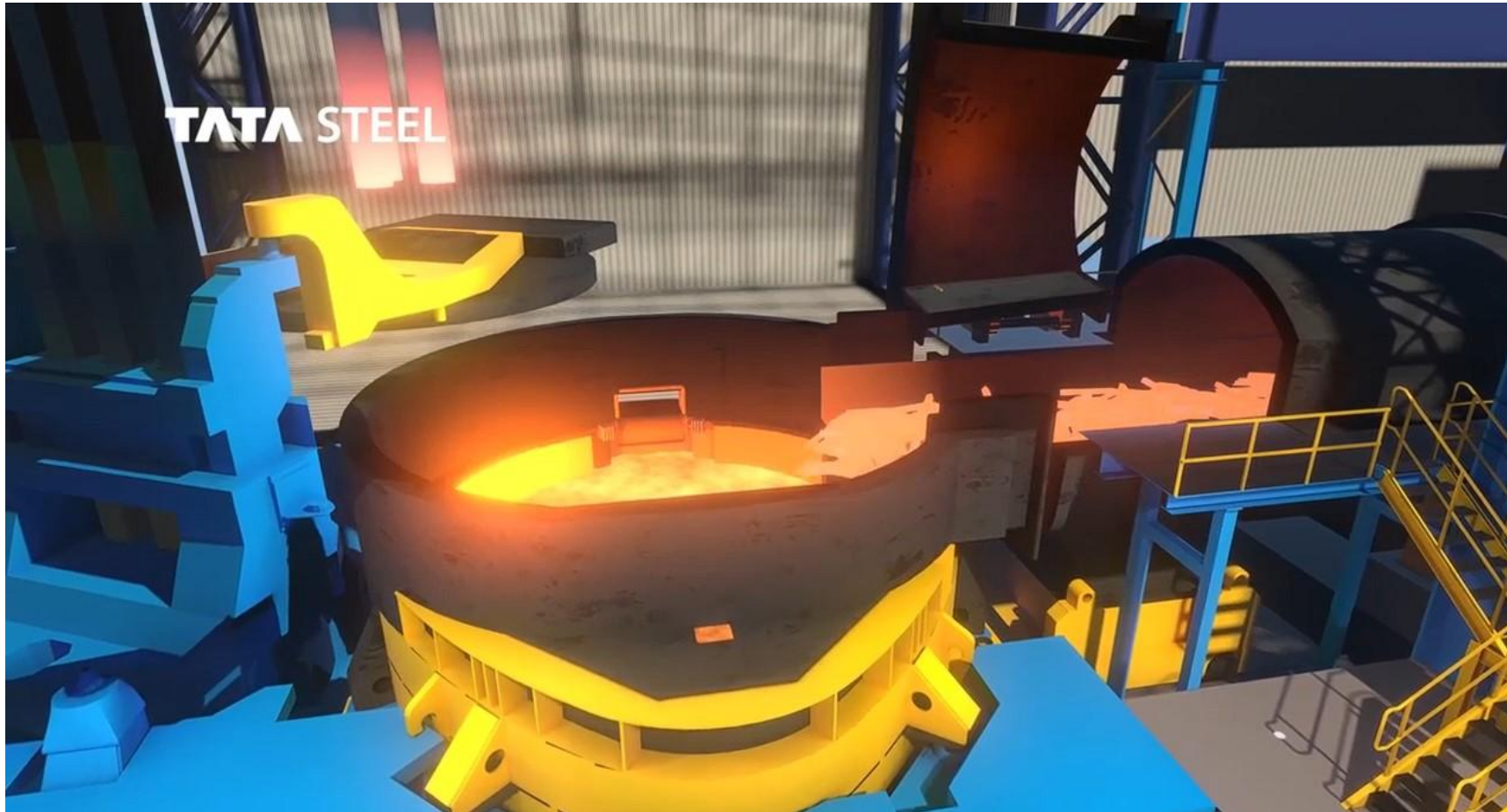
Rebuilding UK steel for a low-carbon future

- Central to Tata Steel UK's decarbonization strategy
  - Scrap-based, electrified steelmaking
  - Digitally driven
  - Designed for safe, efficient operation
  - One of the world's largest EAFs



# Enabling electrified steelmaking at scale

Safe. Stable. Digitally controlled.



## Stability

- Managing extreme, fluctuating electrical demand

## Safety

- Supporting high-energy, high-risk environment

## Digital

- Real-time insight for confident, predictive operation

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## Pickle line project overview

Rethinking how processing lines are operated

- One system architecture seamlessly linking everything together
- Human at the centre of the universe
  - focus on anomalies, not information overload
- Built to evolve over time – future-proof by design



# Operator-centric automation in practice

Supporting better decisions, not more screens

- Single central control environment
- Designed to support, not replace operators
  - Automate with operator in the loop
  - Augment decision-making with advanced functions
  - Clear visibility of performance losses



# The red thread across Port Talbot

One transformation, two major projects

- Integrated electrification, automation and digital design
- Fewer people making better decisions, more safely
- Built for long-term adaptability



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# What does this mean for the steel industry?

## Lessons so far from Port Talbot

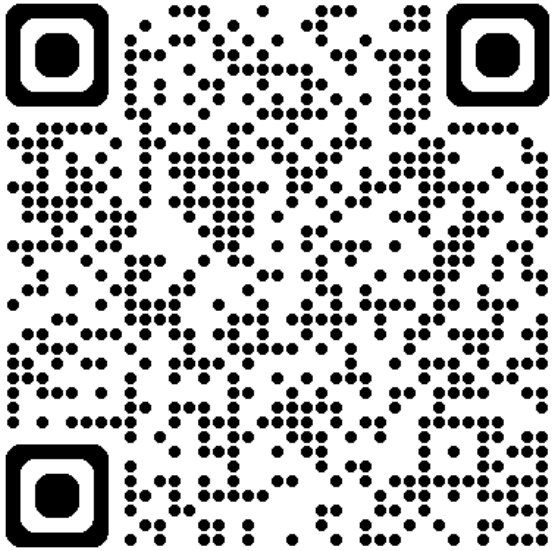
- Design system integration from the start
- Operator decision quality is a competitive differentiator
- Transformation requires partners who can own interfaces
- What we build now must support future innovation without sacrificing operational stability



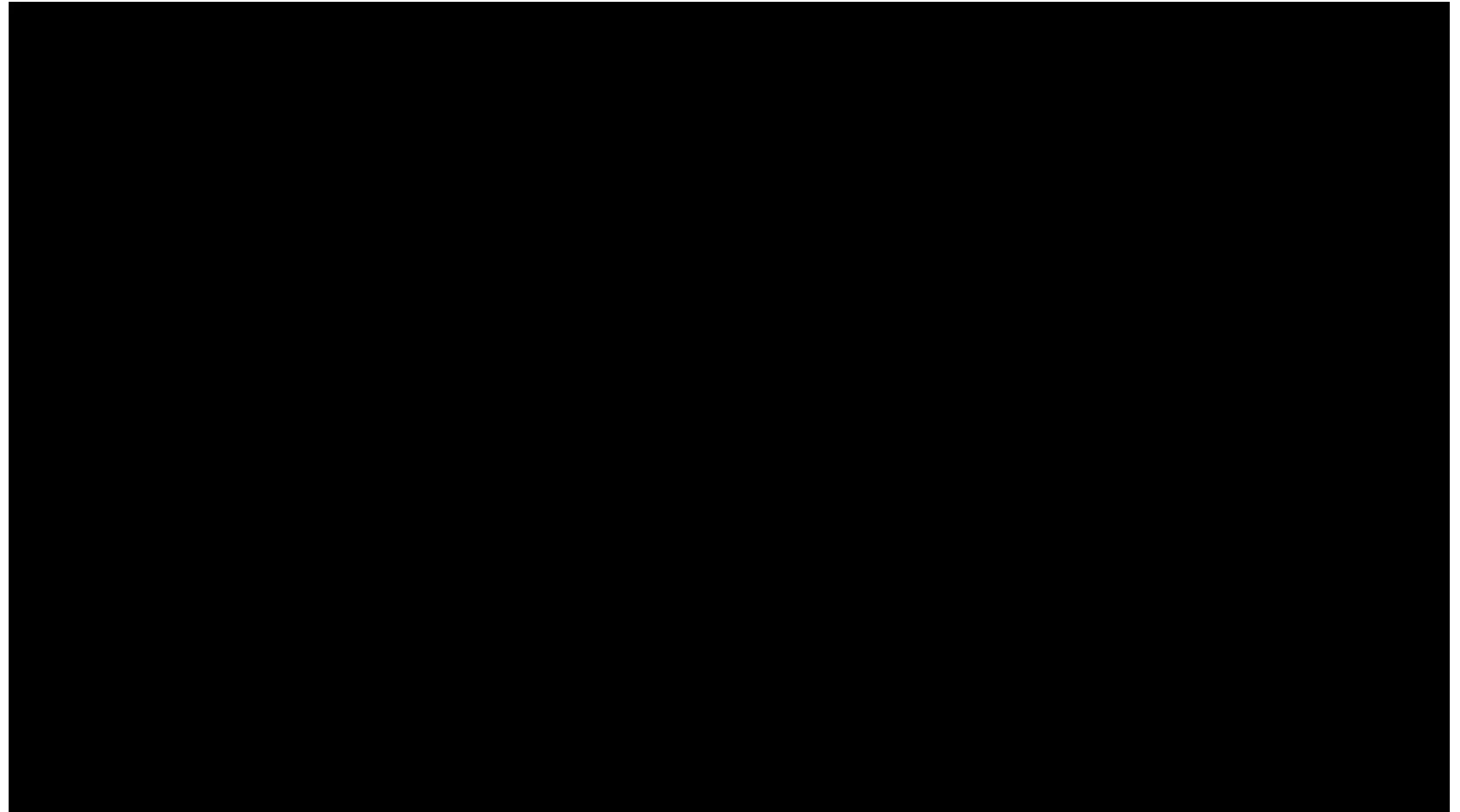
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## The story continues at Port Talbot

Follow Tata Steel's transformation journey on YouTube



Green Steel Future by Tata Steel UK



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# Thank you for your attention!

Questions? Ask now or get in touch



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