

ESTEP 2025 Annual Event

28-30 October 2025
Udine (ITALY)

How decarbonisation, digitisation
and circular solutions forge the
sustainable European steel future?

PART 1

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A. Schröder,
M. Cuypers
Education
Manager

PART 2

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L. Spandagos, **P.**
Inioluwa, and **A.**
Alduwayb
RACE
participants

THE RACE PROGRAMME: Bridging Students and Industry to Foster Innovation and Reframe Perceptions of Steel



DIGIMET



DANIEMI AUTOMATION



**UNIVERSITÀ
DEGLI STUDI
DI UDINE**
HIC SUNT FUTURA

RACE

The Raw and Circular Economy Expedition

Premier talent development initiative connecting
emerging professionals and industry leaders

RACE (Raw & Circular Economy Expedition) is a unique, immersive learning experience powered by EIT RawMaterials bringing together Europe's most promising talents to tackle sustainability and innovation challenges in the raw materials sector to work on real-industrial challenges

WHY THE RACE

- Students in action in real-work environment
 - Fresh solutions to industrial challenges
 - Tech- and soft- skills, diversity
 - Learn from industry experts and peers

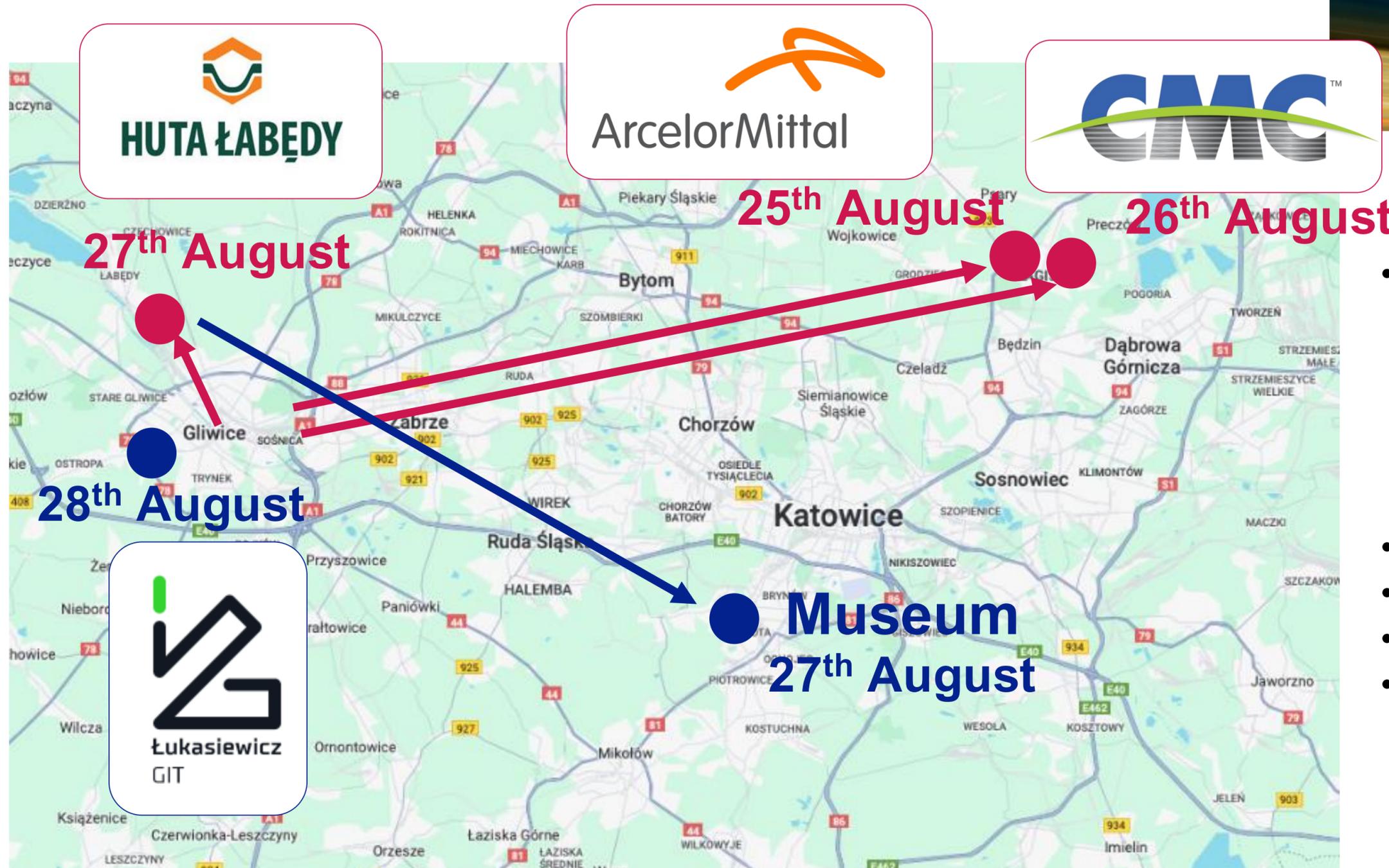


Objectives:

1. Support **decarbonisation transformation**
2. **Work force transformation** to face green, digital and circular
3. **Policy initiatives** for **synergies** between decarbonisation & work force transformation

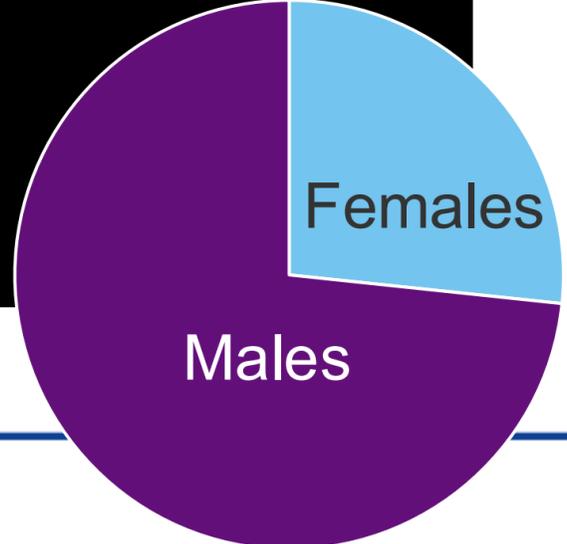
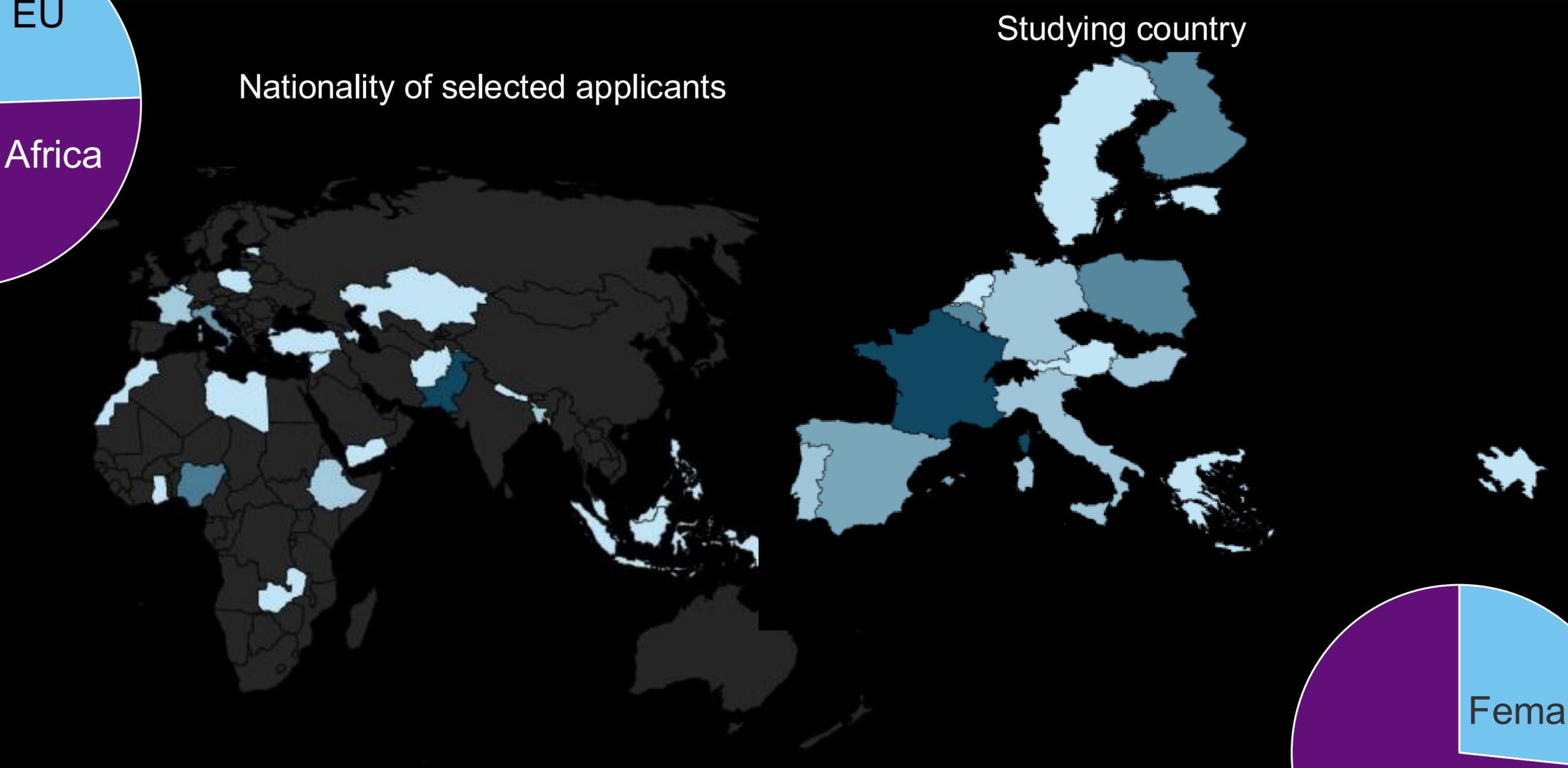
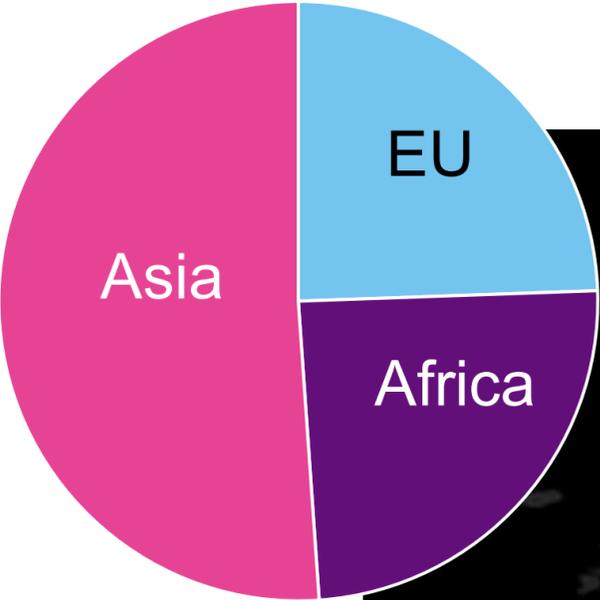


WHERE THE RACE 2025 TOOK PLACE



- Four Hosts
 - ArcelorMittal
 - Huta Labedy
 - CMC
 - GIT
- 3 industrial challenges + 1 RTO
- 45 students – 199 applications
- 31 countries
- 1 week – 23-30 August

RACE 2025 DETAILS



PROGRAMME & GROUPWORK



1. GIT: CIRCULAR ECONOMY & PROCESS OPTIMIZATION (reduced water consumption)
2. Arcelor Mittal: CIRCULAR ECONOMY & INDUSTRIAL SYMBIOSIS (slag valorization)
3. CMC: THE STEEL OF THE FUTURE – MODERN CONCEPT AND VISION FOR 2050 (AI solutions)
4. Huta Łabędy: OPTIMIZATION OF MANUFACTURING PROCESSES (heat recovery)

1
ARCELOR
MITTAL

2
CMC

5
GIT

3
HUTA
LABEDY

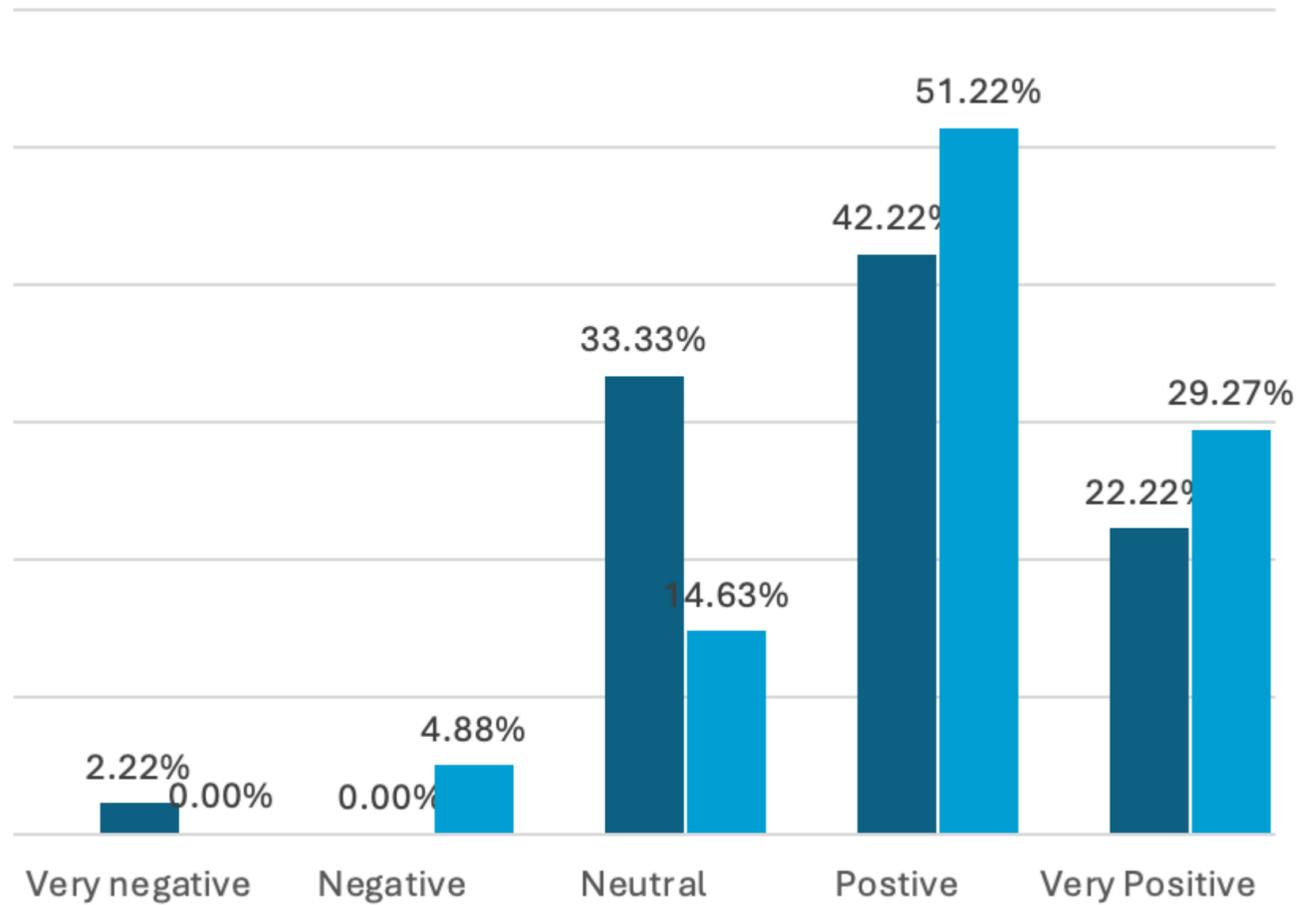
4
MUSEUM



FINAL PITCH COMPETITION



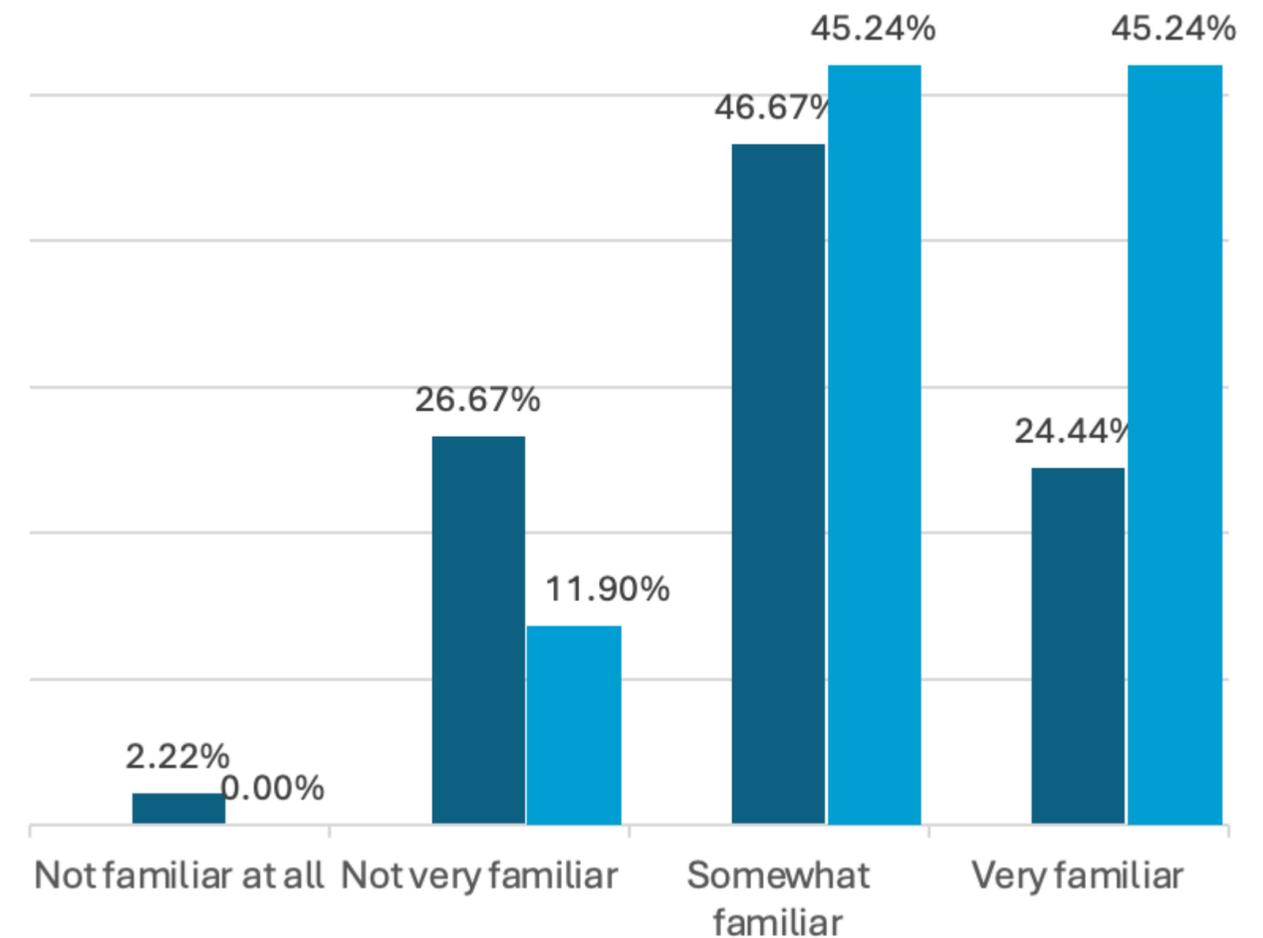
What is your overall impression of the steel industry?



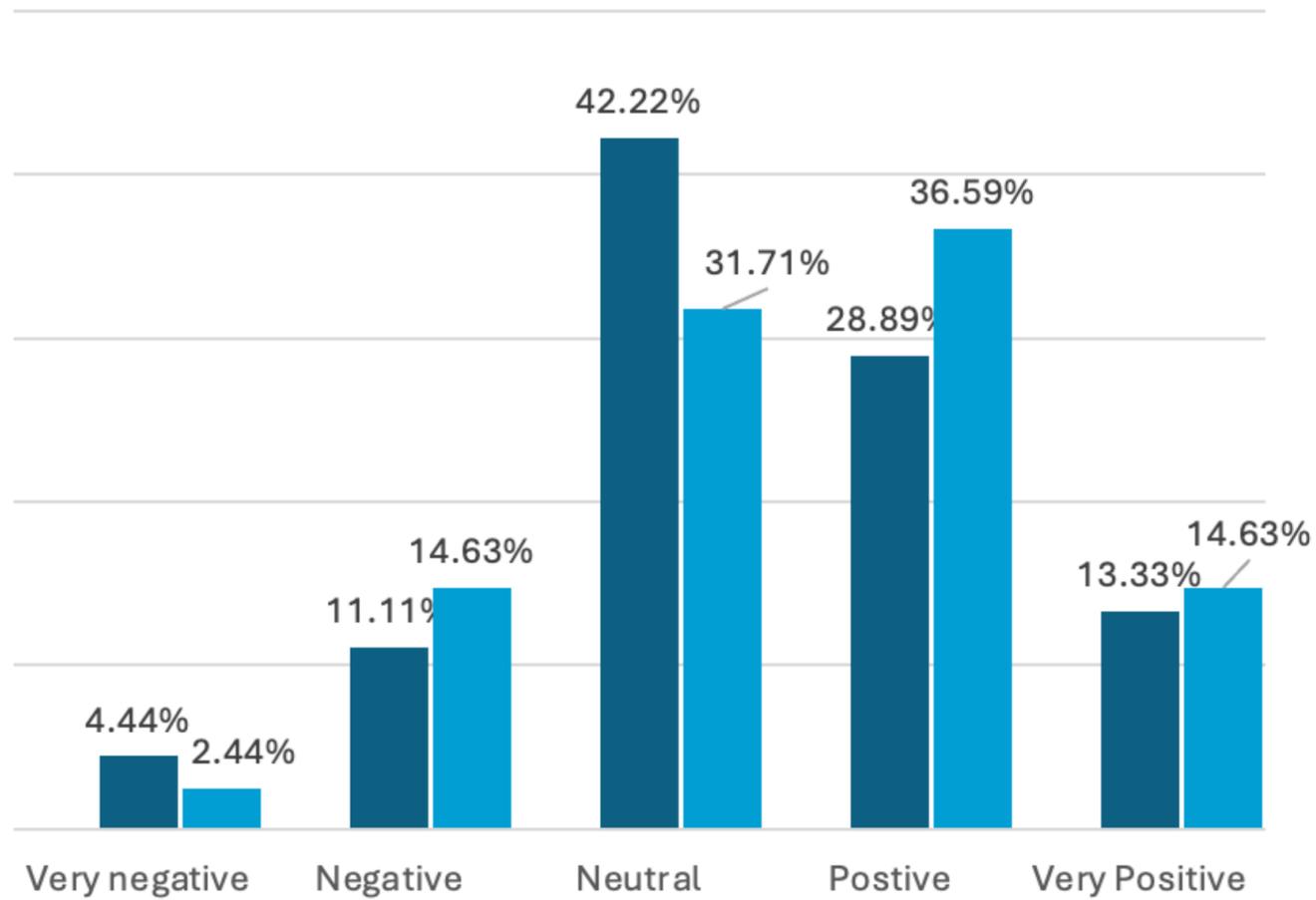
Before = 45

After = 41

How familiar are you with the steel industry?

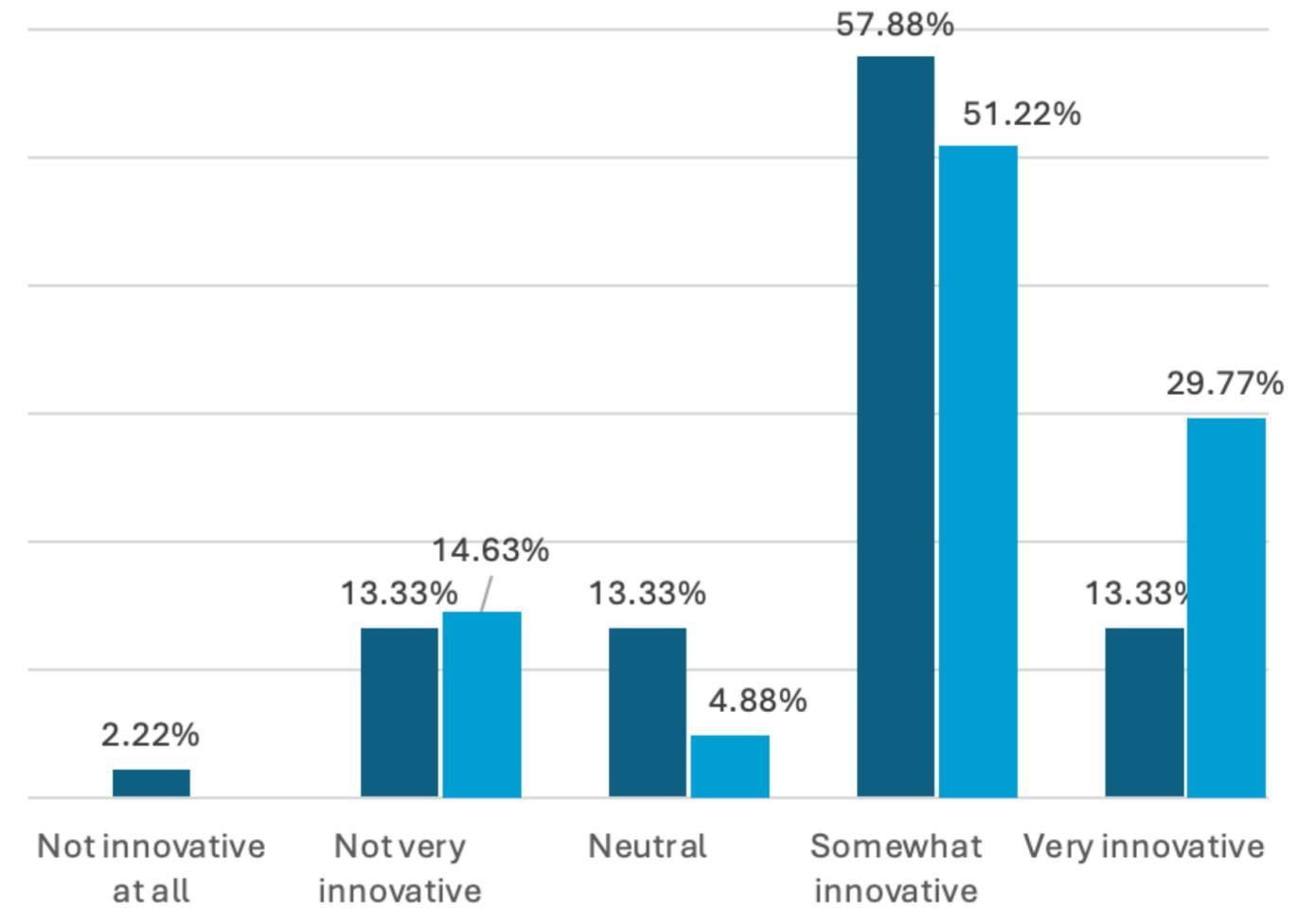


What is your perception of the working conditions in the steel industry?



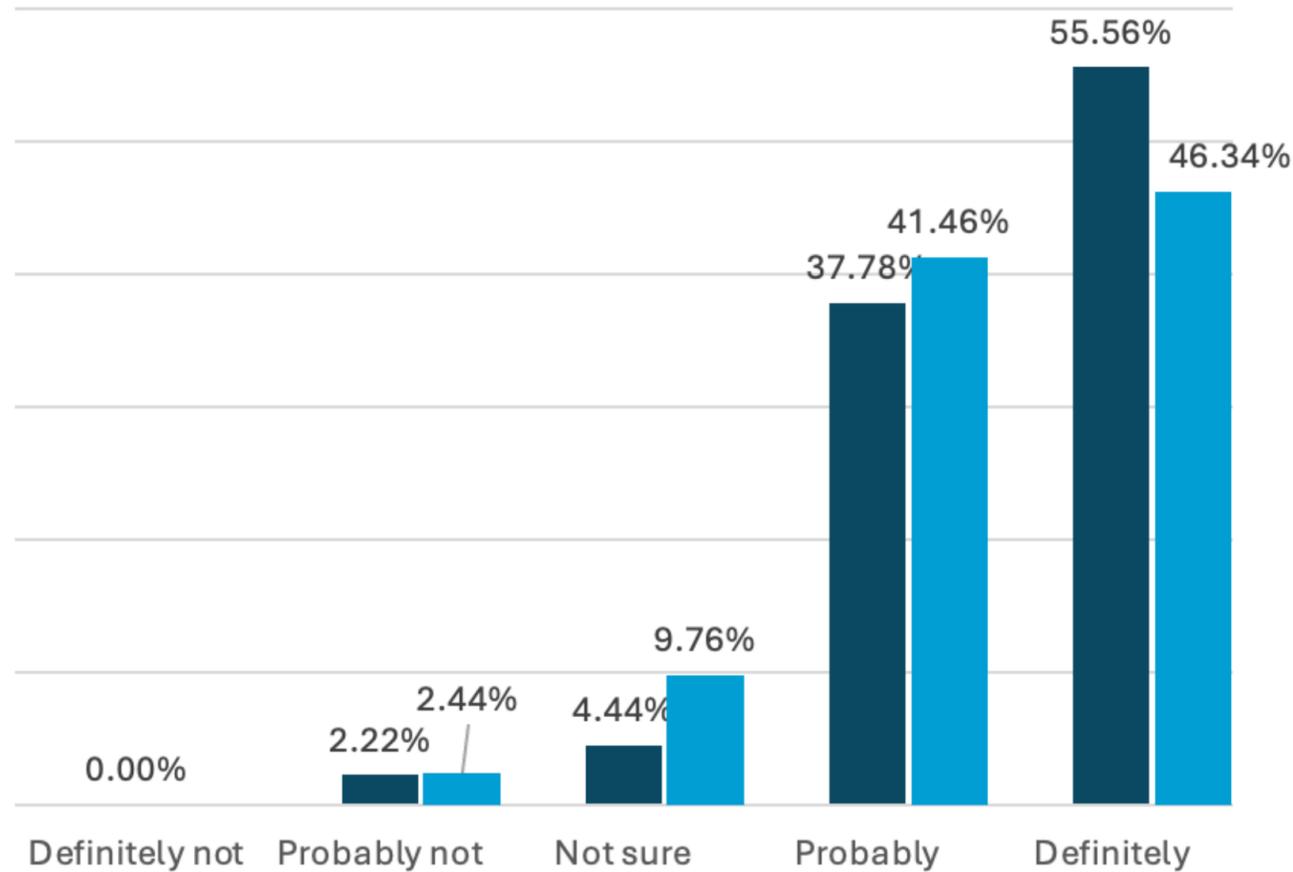
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How innovative is the steel industry in technology and sustainability?



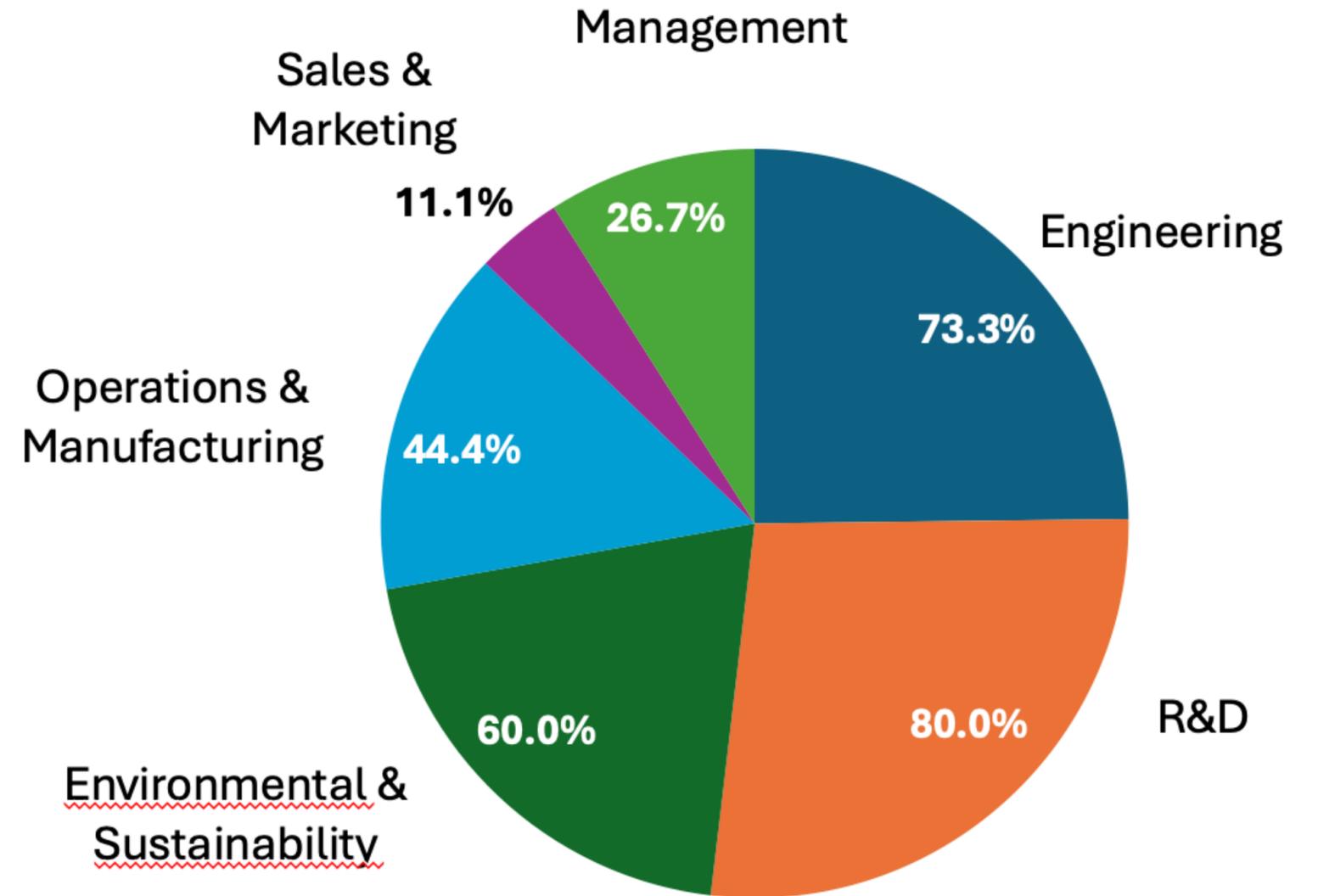
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Would you consider a career in the steel industry?



Before = 45

After = 41

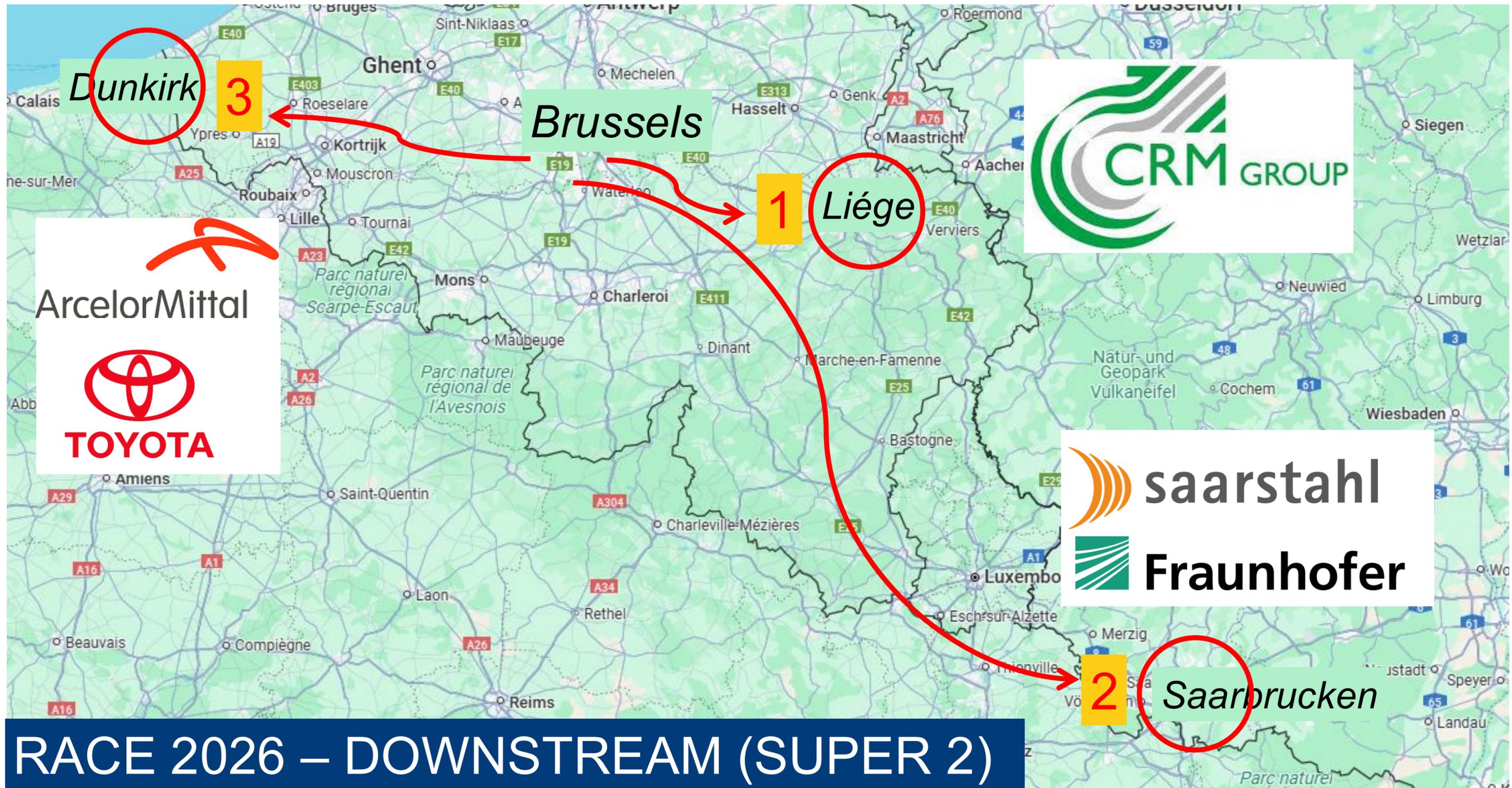


Decarbonisation
high CO₂ emissions
expensive Raw materials supply

Environmental impact

Lean manufacturing Innovation
Green steel technologies
Recycling bottleneck Digitalisation
Investment | Waste valorisation
Sustainability Optimisation

WHAT COMES NEXT?



PROPOSAL FOR 2027 EDITION: SCANDINAVIA AND FINLAND

The RACE will be oriented *upstream* part of the value chain: Raw Materials suppliers

Expected participation:

- Steel Makers, Equipment Suppliers
- RTOs and University
- Mining, scrap supplier, recyclers

Structure: mix of plant tour, discussion, technical challenge and

- job/ internship fair



CONCLUSIONS

- RACE connects students **with real industrial challenges** — where innovation meets sustainability.
- Participants gain hands-on experience, teamwork, and insight into an **industry leading the way in decarbonisation**.
- They discover the steel sector as a **dynamic, forward-looking place** to grow and contribute.
- For companies, RACE **builds visibility** (> 1,000 social media impressions), **fresh ideas, diverse talent**.





STRATEGIC IMPACT GROUP NETWORKS

Green and Circular Metals

Green & Circular Metals

Building a resilient and competitive Circular Economy is a cornerstone of the European Union's approach to secure access to raw materials. The EU's **Critical Raw Materials Act** sets out clear benchmarks and measures: 25% of the EU raw materials consumption must be delivered from domestic recycling, and 40% via domestic processing. This approach will be further strengthened by the incoming **Circular Economy Act**, promoting sustainable product design, enhancing recycling and reuse, and reducing waste, thereby supporting the transition to a truly functioning circular economy.

EUROPEAN RAW MATERIALS ACADEMY | EUROPEAN ADVANCED MATERIALS ACADEMY



Turn your insights INTO SKILLS FOR EUROPE.

Take our survey and help us shape an Academy that reflects your needs.




 Co-funded by the European Union
 



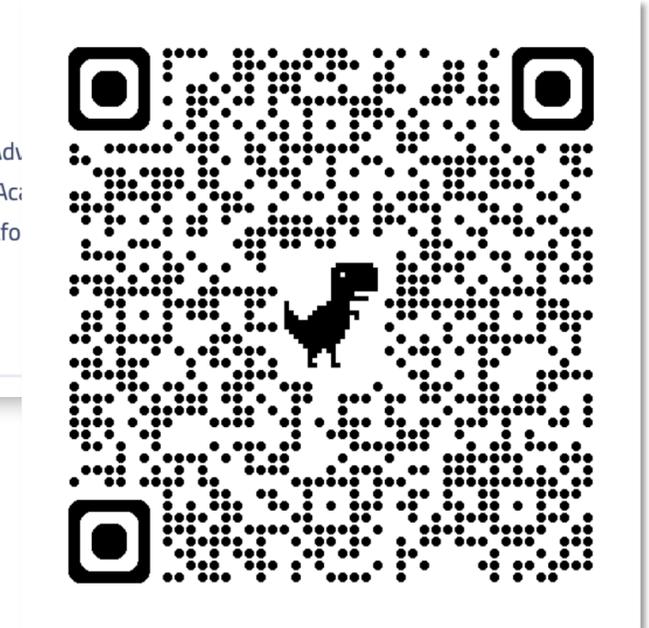
 Co-funded by the European Union




Call for Offers

Call for Subject Matter Experts – European Raw Materials Academy & Advanced Materials Academy

EIT RawMaterials invites qualified Subject Matter Experts, Technical Evaluators, and Industry Advisors to join the European Raw Materials Academy (ERM Academy) and the European Advanced Materials Academy (EUMAT), two flagship European Commission-funded initiatives designed to upskill and reskill Europe's workforce.



PART 2

Team DI-Trode

