



جامعة عجمان
AJMAN UNIVERSITY

Operations & Supply Chain Integration

THE URGENCY FOR GREEN STEEL

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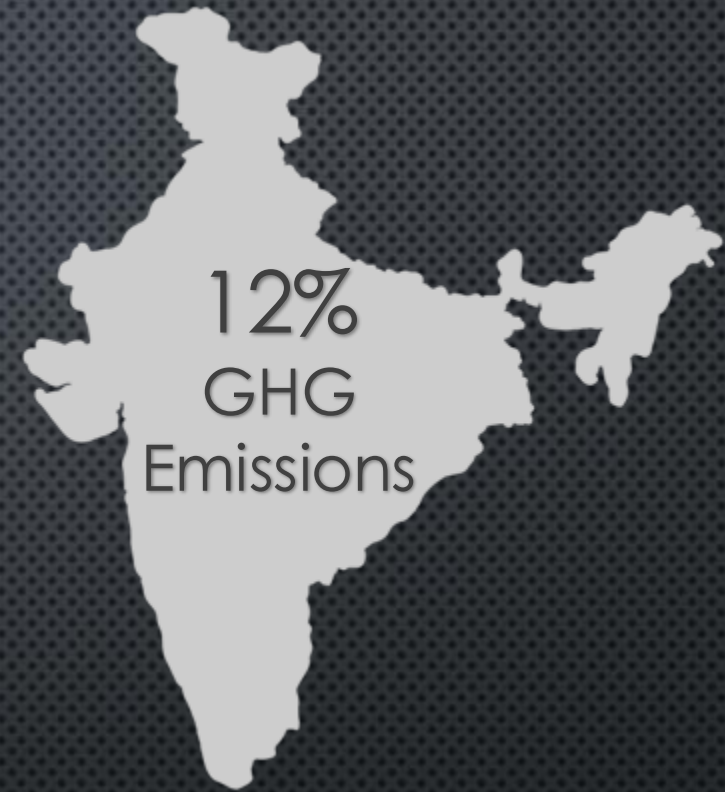
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THE URGENCY FOR GREEN STEEL



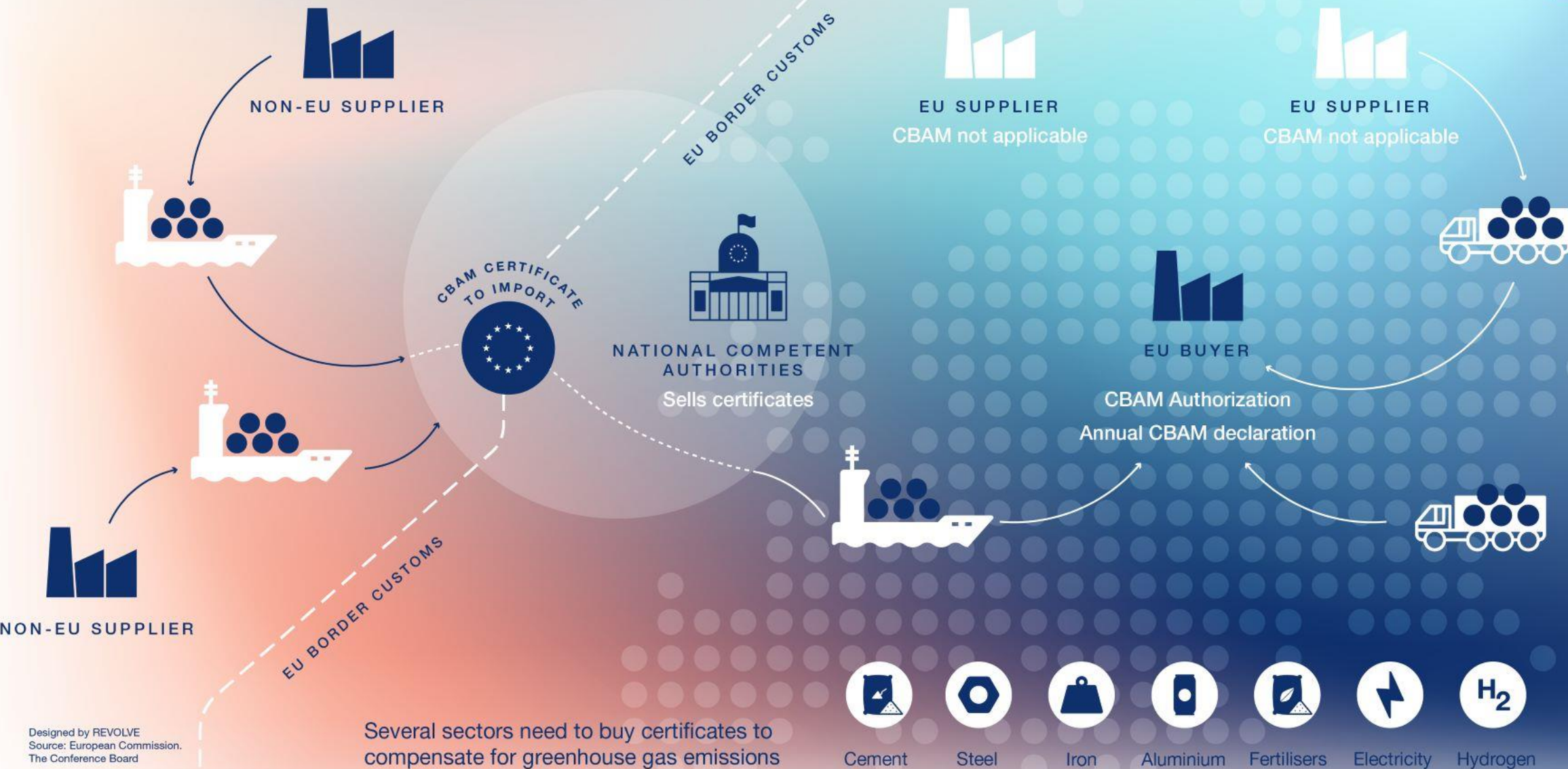
70% Exports
Carbon Border Adjustment
Mechanism
(CBAM)



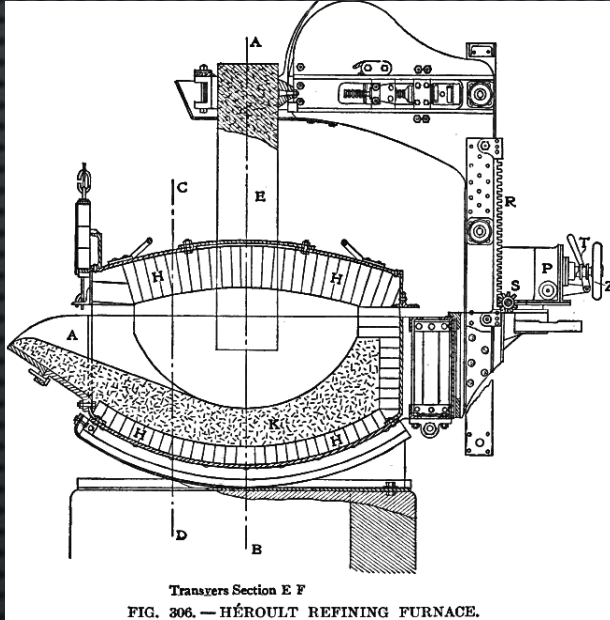
KALYANI

EU Carbon Border Adjustment Mechanism

REVOLVE



SAARLOHA'S FERRESTA: INDIA'S FIRST GREEN STEEL



Electric Arc Furnace (EAF)
100% renewable power



70%+ steel scrap used
instead of DRI/Pig Iron

- **FERRESTA**
(LOW SCOPE 1, ZERO SCOPE 2)
- **FERRESTA PLUS**
(NET ZERO SCOPE 1 & 2 WITH OFFSETS)

- DNV Certified, aligns with First Movers Coalition (FMC)
- India's 1st certified green steel product

EXPANSION OPTIONS

- OPTION 1 – SCALE-UP EAF:

- ✓ PROVEN, IN-USE

- ✗ SCRAP DEPENDENCY, LIMITED SUPPLY, HIGH COST

- OPTION 2 – GREEN H_2 + DRI:

- ✓ 90% EMISSION REDUCTION

- ✗ \$1.1B/YEAR FOR 1M TONS, TECH NOT MATURE

- RECOMMENDATION: START SMALL, PILOT H_2 + BUILD PARTNERSHIPS



WHY NOT JUST STICK WITH TRADITIONAL BLAST FURNACES?



Blast Furnace (BF-BOF)

- CHEAPEST, HIGH CAPACITY
- HIGHEST EMISSIONS
- CONTRADICTS GREEN BRAND
- RISK OF BEING STRANDED ASSET POST-2030 DUE TO REGULATIONS.
- NOT ALIGNED WITH FERRESTA'S FUTURE-FOCUSED IDENTITY

STRATEGIC CHALLENGES & MARKET SIGNALS

- • GREEN STEEL = 2X COST
- • NO SUBSIDIES IN INDIA VS EU
- • HUGE RENEWABLE POWER DEMAND
- • MARKET IS GROWING:
 - ✓ EXPORTERS, AUTO, ESG FIRMS PAYING PREMIUMS
 - ✓ INDIA'S GREEN HYDROGEN MISSION, CARBON CREDIT TRADE

FINAL RECOMMENDATION & ROADMAP

- • DUAL-TRACK STRATEGY:
 - ✓ SCALE EAF FOR SHORT-TERM + BRAND BUILDING
 - ✓ INVEST IN GREEN H₂ PILOT – USE JVS, GREEN FUNDS
- • FOCUS: SUSTAINABILITY, INNOVATION, COMPETITIVE EDGE
- • GREEN = LONG-TERM ROI, NOT JUST CSR