



Value the Future, Upgrade the Past

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A quick introduction



finindus



ArcelorMittal



- A spin-off company created by OCAS, Finindus and ArcelorMittal Belgium



- Creating value for our customers by repairing & refurbishing large metal parts to allow lifetime extension or downtime reduction of their industrial equipment



- Born from Innovation to guarantee first time right



- Raised in Industry to guarantee one-stop-shop reliability



Steel industry



Railway



Aerospace



Petrochemical



Oil & gas



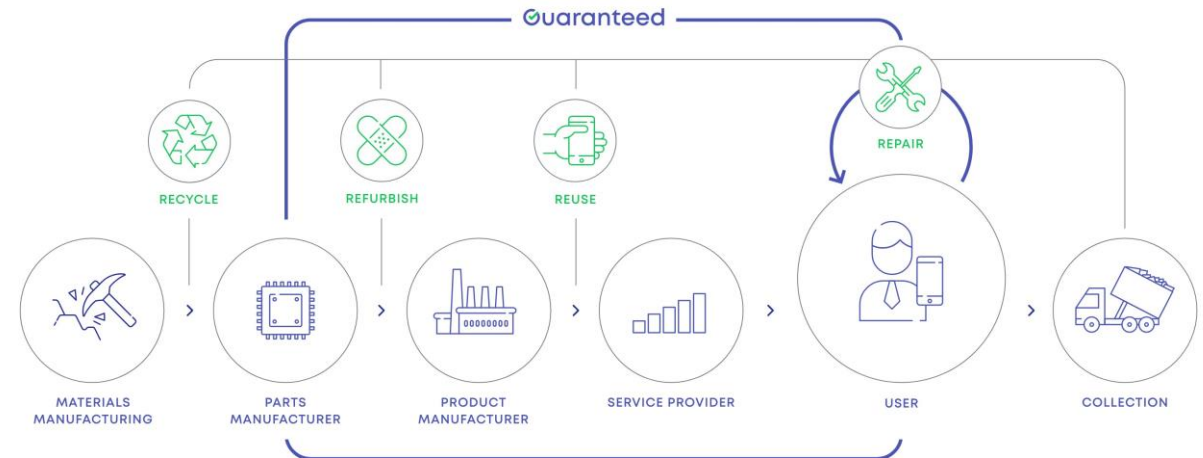
Ports & Maritime



Mining



Energy utilities



- XXXL metal 3D printing
- Guaranteed leadtime
- Guaranteed properties
- Cost Efficient & Sustainable
- Strong innovation roadmap

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Our DNA



- Robust industrial
 - Robots
 - Manipulators
 - Welding sources
 - Tracks
- Proprietary hardware:
 - Local gas shielding for reactive materials
 - In-situ process monitoring
 - In-situ NDT
- Proprietary software

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Value Propositions Summary



Direct Repair

- Cost reduction (material consumption)
- Lead time reduction
- Sustainability (raw material, logistics, ...)



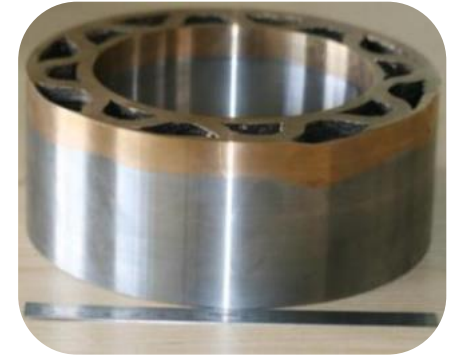
Refurbishment

- Cost reduction (no CAPEX for tools, moulds, dies)
 - Lead time reduction
- Process improvements (higher yield, performance, ...)



New part

- Cost reduction (extend installation lifetime)
- Lead time reduction (no new tools needed)
- Obsolescence can be avoided



Optimization

- Cost reduction (e.g. lightweight)
- Lead time (assembly)
 - Performance optimised

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REPAIR CAST WHEEL RIM

New part cost: 60 kEUR

Total repair cost: 5 kEUR

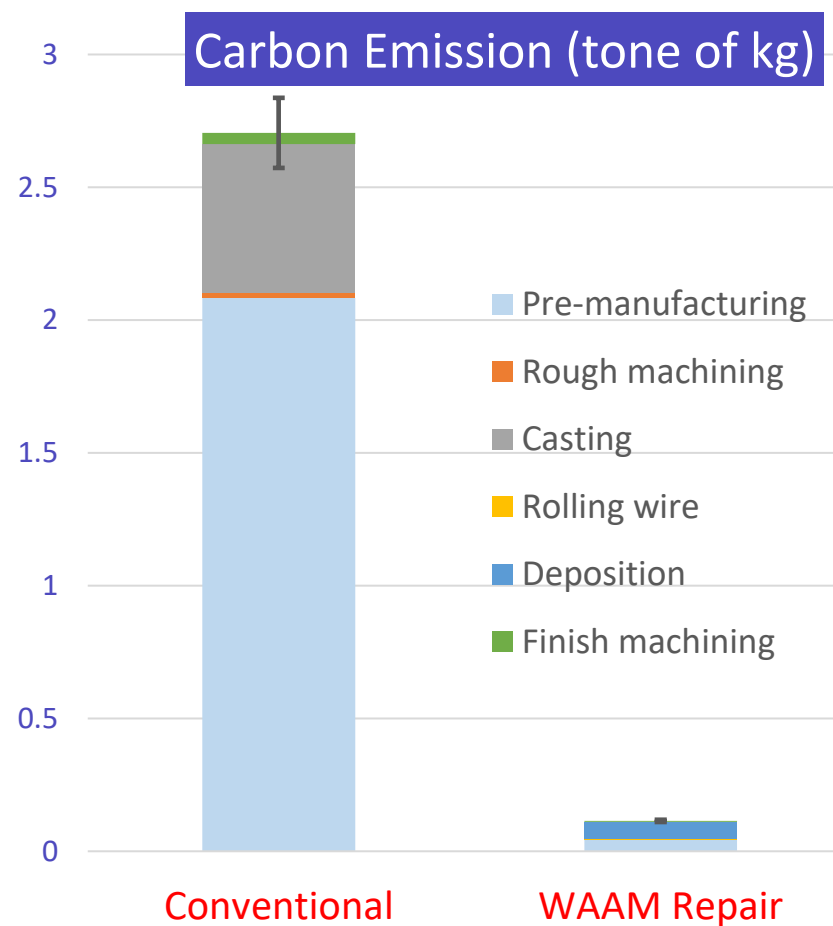
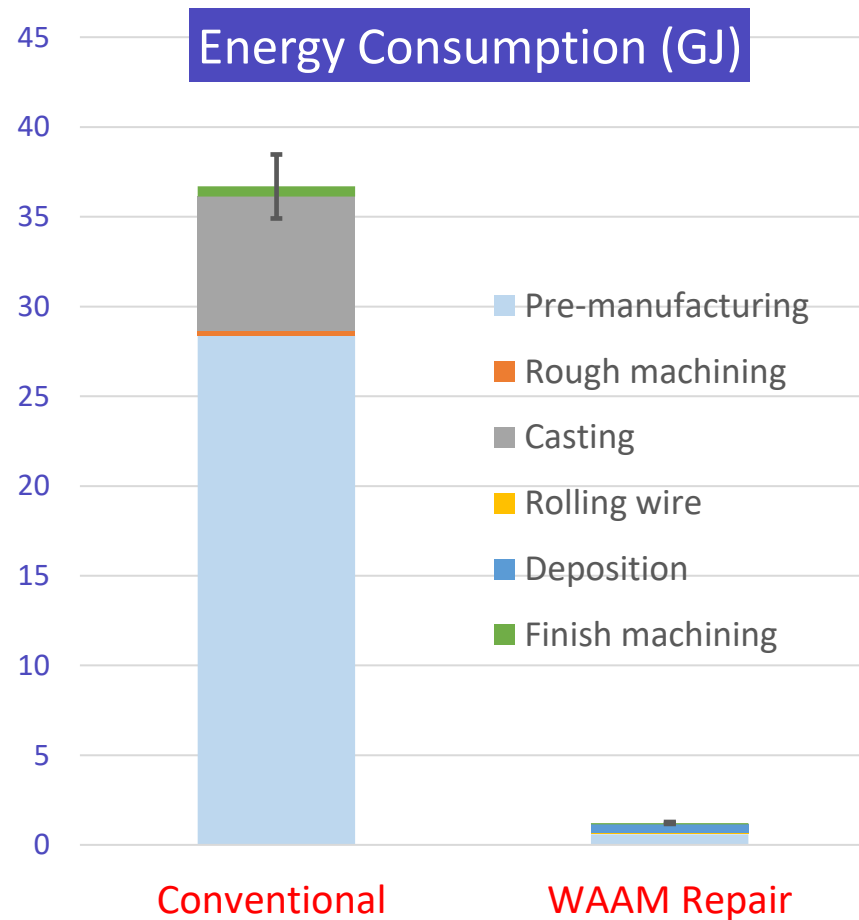


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WAAM Repair Cast Wheel Rim



Even when transport & logistics are being ignored, WAAM repair results in spectacular Energy and Carbon Emission savings!!!

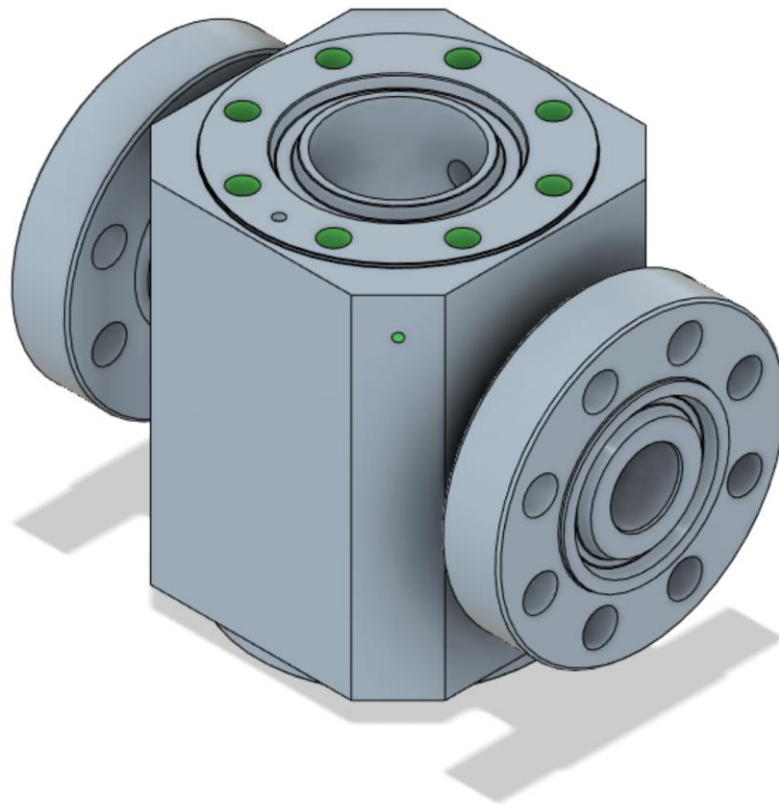
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Sandeep Sawant, Rodrigo Ruiz Diaz

WAAM Production or Repair of a 2205 Duplex SS Valve



Conventional Production

- Net Weight: 105kg
- Forging, rough and fine machining
- Tar Weight: +/- 600kg



WAAM Production

- BTF-ratio 1.5
- Tar Weight: 158kg
- No design optimisation

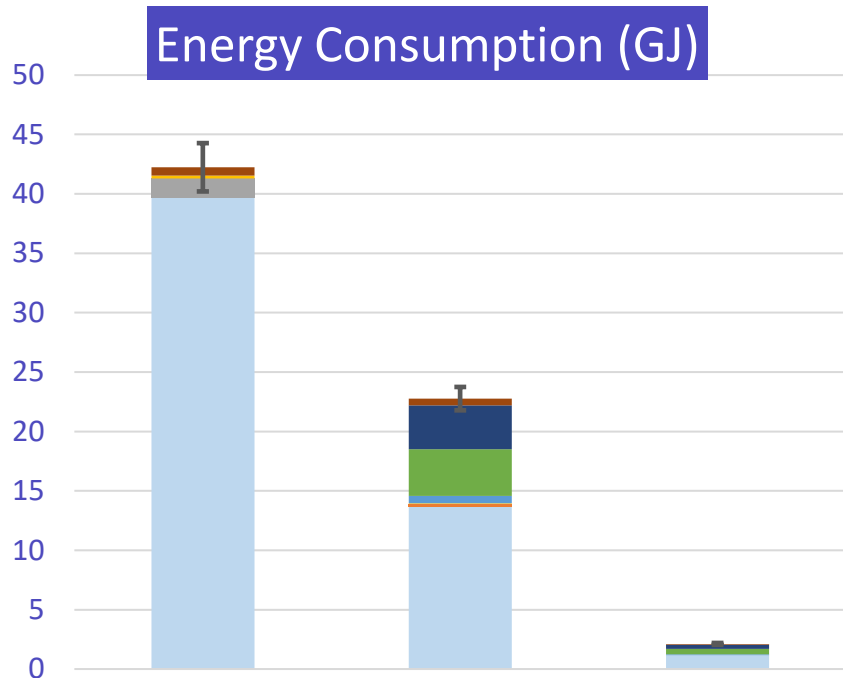
WAAM Repair

- Defect are: 10kg
- BTF-ratio 1.5
- Tar Weight: 15kg

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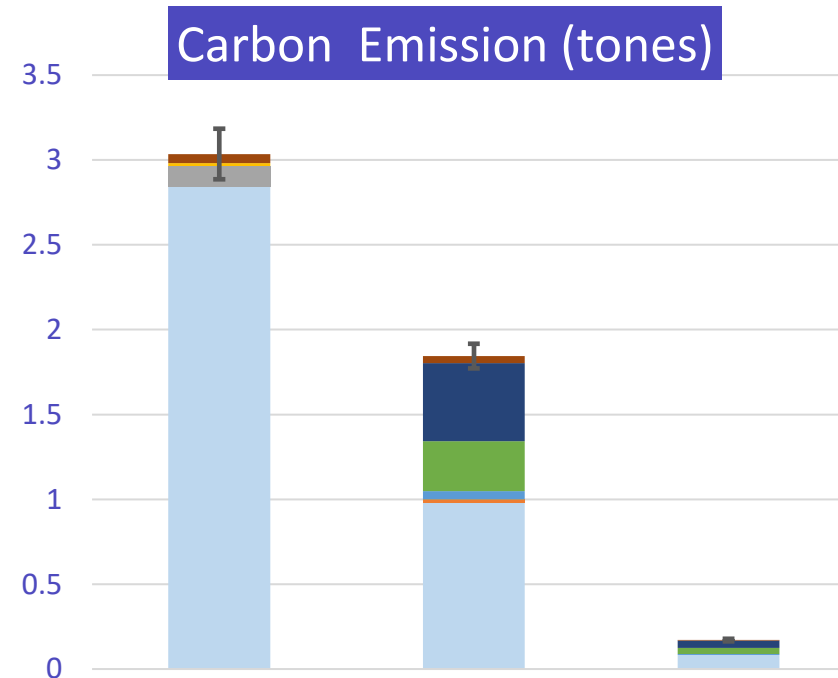
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WAAM Production or Repair of a 2205 Duplex SS Valve



Coventional WAAM Waam repair

Pre manufacturing Rolling
Rolling Wire Wire Drawing
Deposition Finish Machining



Conventional WAAM WAAM repair

Pre manufacturing Forging
Rolling Wire Wire Drawing
Deposition Finish Machining

Compared to forging, WAAM-production, and WAAM-repair allow to reduce by resp. 45% and 95% the Energy Consumption and Carbon Emissions

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