Connecting the dots on steel decarbonisation initiatives: contributing to a global inclusive dialogue, OECD GFSEC, 21 September 2022

ANNIE HEATON
CEO ResponsibleSteel
Driv" the responsible production and sourcing of near zero steel via

- International standards and assurance programme
- 13 ESG principles, >500 requirements
- 13% global steel market by volume in membership
- 130 members across steel value chain
- Multistakeholder membership by design

ResponsibleSteel has developed the world’s first global initiative for responsibly sourced and produced steel.”
### ResponsibleSteel Standard V2.0

- **13 principles, 61 criteria, >500 requirements**
- Sites are audited against the requirements by approved and trained third party auditors

#### Governance Principles
1. Corporate Leadership
2. Social, Environmental, Governance Management Systems
3. Responsible Sourcing
4. Decommissioning and Closure

#### Social Principles
5. Occupational Health + Safety
6. Labour Rights
7. Human Rights
8. Local Communities
9. Stakeholder Engagement and Communication

#### Environment Principles
10. Climate Change and Greenhouse Gas Emissions
11. Noise, Emissions, Effluents and Waste
12. Water Stewardship
13. Biodiversity
Compliance with ResponsibleSteel standard is audited and certified under our Assurance programme:

- Approval of certification bodies
- Training of auditors
- Validation of audit plans
- Quality control of audit reports
- Independent Assurance Panel
- Oversight programme
ResponsibleSteel Certified Sites

- Site standard launched Dec 2019
- First site certification, post lockdowns, in July 2021
- Today 41 sites certified across 4 continents
- >100mt steel covered in site certifications by end 2022
- Ongoing site audits in Europe, Brazil, India, Rep. of Korea
- More in the pre-public stage.
- First ‘certified steel’ anticipated 2023
BREAKING NEWS
14 Sep 2022

Leading steel companies and NGOs agree to International Standard on climate for industry
Data
GHG benchmarks need good data

ResponsibleSteel approach to defining thresholds of embodied GHG:

a. Determine global average carbon intensity of a tonne of crude steel at each % scrap input
b. Reward all those tonnes steel performing better than average
c. Revise average downward over time

→ Needs global data set of industry GHG emissions to determine the ‘global average’ carbon intensity.

Source IEA 2022
Standards will play a vital role in enabling decarbonisation

Drivers for low emissions and near zero steel

- Demand – private sector
- Demand - public sector
- Financial institutions
- Policy makers

How to signal it?
How to measure it?

How to signal it?
How to measure it?

How to cost finance for it?

How to treat it consistently?

i.e. How to benchmark it?

Lack of consistency, comparability in GHG emissions across steel industry

International standard + assurance
GHG intensity benchmarks – compare like with like

Application of thresholds requires comparability between different sites, different steels and different business models

→ Consistent system boundary for assessing embodied GHG emissions
→ Consistent GHG accounting rules: ISO14404, EN19694, WSA, ISO14025; ISO14040&44, EN15804 etc
→ Assurance scheme

**Upstream GHG**
- Extraction of coal, iron ore, natural gas etc
- Processing of iron ore, hydrogen, charcoal etc
- Transportation of input materials

**Indirect energy GHG**
- Electricity
- Heating, cooling and steam

**Direct GHG**
- Treatment of CCU, CCS
- Treatment of process gases
- Treatment of biomass

**Product processing GHG**
- Processing of crude steel
- Treatment of CCU, CCS
- Treatment of process gases
- Treatment of biomass

ResponsibleSteel V2.0 system boundary
Additional slides
ResponsibleSteel V2.0

New requirements on responsible sourcing
‘Certified Steel’: Responsible sourcing overview

- Clear roadmap for the responsible sourcing journey for steel companies and their suppliers
- Rewards good ESG practice by input material suppliers
- Builds on existing standards and ESG programmes for responsible mining and forestry
- Scrap and extracted material addressed separately

### 5 criteria for responsible sourcing

1. **Commit to responsible sourcing**
2. **Know your upstream supply chains**
3. **Understand supplier ESG performance**
4. **Strengthen and account for responsible sourcing**
5. **Report publicly on responsible sourcing**

‘Certified steel’ is available against 4 different performance levels for these criteria
ResponsibleSteel 2.0
Focus on GHG emissions
### Requirements of the Standard

<table>
<thead>
<tr>
<th>Requirement</th>
<th>‘Site’ certification</th>
<th>‘Steel’ certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate owner published science-based GHG target in line with the Paris Agreement</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Corporate owner implemented TCFD</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Site level GHG emissions measured</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Site level GHG intensity performance (‘cradle to crude steel’) measured using specified ResponsibleSteel accounting rules</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Site level GHG target in place and implemented</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Site level GHG intensity performance thresholds</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>GHG disclosure of GHG emissions, target, GHG intensity performance + <strong>product carbon footprint</strong></td>
<td>Partial</td>
<td>✓</td>
</tr>
</tbody>
</table>

NB Highlighted elements are additional requirements for ‘steel’ certification.
V2.0 certified steel: embodied GHG emissions + product carbon footprint

- Application of thresholds requires comparability between different steels → consistent system boundary.
- V2.0 requirements for the calculation of embodied GHG of crude steel include the following:

**Upstream indirect GHG emissions**
Material extraction (iron ore, lime, coal, gas, biomass)
Material preparation and processing
Transportation

**Energy indirect (Scope 2) GHG emissions**
Clean electricity
Heating, cooling and steam

**Direct (Scope 1) GHG emissions**
NOT Non-ferrous metals and ferro-alloys
Up to the production of crude steel only
CCUS net GHG benefits recognised

- Site must also disclose **product carbon footprint** to qualify for steel certification
V2.0 certified steel: embodied GHG emissions thresholds

- Embodied GHG emissions tend to be lower the higher the % scrap used.
V2.0 certified steel: scrap is a limited solution

Steel production by share of different process routes in IEA Net Zero Scenario, 2018-2030
V2.0 certified steel: embodied GHG emissions thresholds

- Embodied GHG emissions tend to be lower the higher the % scrap used.
- Scrap stocks are insufficient to drive net zero by 2050
- Steel mills with the same % scrap input can vary widely in GHG emissions
ResponsibleSteel GHG emissions intensity performance levels

- Thresholds based on % scrap due to limits in global scrap
- Allows for technology shifts
- 4 levels distinguish better performance from Level 1 to ‘near zero’ steel (and eventually ‘net zero’ steel)
- Level 1 threshold is (initially) ‘better than global average’
- Level 1 threshold will become more demanding over time
- RS certified steel GHG performance / levels will be disclosed alongside product carbon footprint data

NB ResponsibleSteel Claims Guidance project Sept-Dec 2022 to determine claims, logos and labelling related to certification.
ResponsibleSteel – what’s next?

- From development phase → building momentum
- Roll out additional requirements for steel certification
- Building out ResponsibleSteel in India, N America, Asia

“Shaping the Future of responsible steel”, Forum III – 31 October 2022, Memphis, USA

- Strengthening the standard, deepening the certification programme
- Working with partners to strengthen the drivers for responsible decarbonisation – all 13 principles of ResponsibleSteel