Recycling is not enough

[Graph showing the increase in recycled and primary steel over the years.]
Steel production accounts = 7% of global emissions

WHAT ARE THE SOURCES OF AIR POLLUTION?

Outdoor air pollution affects urban and rural areas and is caused by multiple factors:

- Industry & Energy Supply
- Transport
- Agriculture Practices
- Waste Management
- Households

Countries cannot tackle air pollution alone. It is a global challenge we must all combat together.

CLEAN AIR FOR HEALTH  #AirPollution

AIR POLLUTION – THE SILENT KILLER

Air pollution is a major environmental risk to health. By reducing air pollution levels, countries can reduce:

- Over 2 million in India and China
- Over 2 million in Western Pacific Region
- Nearly 1 million in Europe
- About 500,000 in the South East Asia Region
- About 500,000 in Eastern Mediterranean Region
- More than 150,000 in the Americas Region

Regional estimates according to WHO regional groupings:

CLEAN AIR FOR HEALTH  #AirPollution
• Iron ore: ~100%
• Coal: 15% of all coal
• Manganese: 90%
• Vanadium: 85%
• Chromium: 75%
• Nickel: 60%
• Zinc: 60%
• Molybdenum: 60%
• Tungsten: 20%

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We need to know responsible steel looks like...

1) Knowing what a responsible steel making site looks like
2) What responsible mining looks like
3) Carbon - scope 1, 2 and 3
4) What claim a steel maker can pass onto a steel user
5) What claim a steel user would want to make to their customers
The ResponsibleSteel Vision – three core elements
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Standard Development

- 2017
  - ‘Straw Man’
  - Version 1-0

- 2018
  - Version 2-0 (60-day consultation)

- 2019
  - Version 3-0 (60-day consultation)
  - Version 4-1 (30-day consultation)
  - Versions 5-0, 5-1, 5-2

- Nov 2019
  - Approved as Version 1-0!
10/12/2019

ResponsibleSteel™ Standard

12 Principles
1. Corporate Leadership
2. Social, Environmental and Governance Management Systems
3. Occupational Health and safety
4. Labour rights
5. Human rights
6. Stakeholder Engagement and Communication
7. Local communities
8. Climate Change & Greenhouse Gas emissions
9. Noise, emissions, effluent and waste
10. Water stewardship
11. Biodiversity
12. Decommissioning & closure

Assurance Programme Development

  - Inspection
  - Certification
  - Oversight
  - Complaints and disputes

- Consultation and revised drafts of Assurance Manual
- Auditor training
- Finalisation and approval of Assurance Manual
ArcelorMittal, commits to ResponsibleSteel Site Certification

November 2019 – Flat Europe – “Sites in the first wave of auditing include Ghent, Bremen, Eisenhuttenstadt, Asturias, Sagunto, Fos and St Chely d’Apacher with others to follow. After the initial phase, further ArcelorMittal sites around the world will be part of the programme”.

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Raw materials used in steel making – the potential ingredients

List of the most important raw materials used for steelmaking, developed for World Steel by The Dragonfly Initiative:

<table>
<thead>
<tr>
<th>Material</th>
<th>Ferro-Element</th>
<th>Other Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium</td>
<td>Ferro-Chromium</td>
<td>Graphite</td>
</tr>
<tr>
<td>Charcoal</td>
<td>Ferro-Manganese</td>
<td>Iron ore</td>
</tr>
<tr>
<td>Coal</td>
<td>Ferro-Molybdenum</td>
<td>Iron (pig)</td>
</tr>
<tr>
<td>Metallurgical Coal</td>
<td>Ferro-Nickel</td>
<td>Limestone</td>
</tr>
<tr>
<td>Coke</td>
<td>Ferro-Niobium</td>
<td>Magnesia</td>
</tr>
<tr>
<td>Cobalt</td>
<td>Ferro-Phosphorous</td>
<td>Molybdic Oxide</td>
</tr>
<tr>
<td>Calcium</td>
<td>Ferro-Silicon</td>
<td>Silico-manganese</td>
</tr>
<tr>
<td>Dolomite</td>
<td>Ferro-Titanium</td>
<td>Tin</td>
</tr>
<tr>
<td>Ferro-Aluminium</td>
<td>Ferro-Tungsten</td>
<td>Zinc</td>
</tr>
<tr>
<td>Ferro-Boron</td>
<td>Ferro-Vanadium</td>
<td></td>
</tr>
</tbody>
</table>

Source: responsiblesteel.org
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responsiblesteel.org
Scope 3 - emission upstream categories – which to include and which to not

<table>
<thead>
<tr>
<th>#</th>
<th>Category</th>
<th>#</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Purchased goods and services</td>
<td>9</td>
<td>Downstream transportation and distribution</td>
</tr>
<tr>
<td>2</td>
<td>Capital goods</td>
<td>10</td>
<td>Processing of sold product</td>
</tr>
<tr>
<td>3</td>
<td>Fuel-and-energy-related activities</td>
<td>11</td>
<td>Use of sold products</td>
</tr>
<tr>
<td>4</td>
<td>Upstream transportation and distribution</td>
<td>12</td>
<td>End of life treatment of sold products</td>
</tr>
<tr>
<td>5</td>
<td>Waste generated in operations</td>
<td>13</td>
<td>Downstream leased assets</td>
</tr>
<tr>
<td>6</td>
<td>Business travel</td>
<td>14</td>
<td>Franchises</td>
</tr>
<tr>
<td>7</td>
<td>Employee commuting</td>
<td>15</td>
<td>Investments</td>
</tr>
<tr>
<td>8</td>
<td>Upstream leased assets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Highly Restricted
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One steel product = many mines...

25 – 200 mines
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Standard Development: 2020 work plan

Jan- June

- Raw materials working group (study on scrap)
- GHG working group
- Product standard / claims working group

June

- Members Meeting (London)

Jul - Oct

- Finalisation

Nov 2020

Product standard / Claim for steel producers to steel users

2021

Standards or Claim guidance a steel user can make
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