This guide provides members of the World Steel Association (worldsteel) an overview on how to submit sustainability indicator data to worldsteel via the web-based Sustainability Data Collection System. It also provides indicator definitions and calculation methodologies.
1. **WORLDSTEEL SUSTAINABILITY INDICATORS**

Worldsteel members report on 8 sustainability indicators every year. The indicators are aligned to the commitments outlined in our sustainable development policy. Companies’ reporting is voluntary. However, it is part of the Steel Sustainability Champions Recognition Programme. The indicators are published on our website and in our “Sustainable Steel” publication annually.

The data for these 8 indicators are collected via three worldsteel data collection systems. An overview is provided in the table below. The 5 indicators collected via the Webtool described in this guide are shaded in the table below (Indicators 3, 4, 6, 7 and 8).

<table>
<thead>
<tr>
<th>Indicator</th>
<th>worldsteel Team responsible for collection &amp; verification</th>
<th>Data Collection System</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Greenhouse gas emissions</td>
<td>Industry Excellence</td>
<td>CO₂ Data Collection System</td>
</tr>
<tr>
<td>2. Energy intensity</td>
<td>Industry Excellence</td>
<td>CO₂ Data Collection System</td>
</tr>
<tr>
<td>3. Material efficiency</td>
<td>Sustainability</td>
<td>Sustainability Indicators Data Collection System</td>
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<tr>
<td>4. Environmental management systems (EMS)</td>
<td>Sustainability</td>
<td>Sustainability Indicators Data Collection System</td>
</tr>
<tr>
<td>5. Lost-time injury frequency rate</td>
<td>Safety, Health &amp; Environment</td>
<td>Safety Data Collection System</td>
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<td>6. Employee training</td>
<td>Sustainability</td>
<td>Sustainability Indicators Data Collection System</td>
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<td>Sustainability</td>
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<tr>
<td>8. Economic value distributed (EVD)</td>
<td>Sustainability</td>
<td>Sustainability Indicators Data Collection System</td>
</tr>
</tbody>
</table>
2. WHY WE REPORT ON SUSTAINABILITY

Sustainability reporting at a global level is one of the major efforts that the steel industry undertakes to manage its performance, demonstrate its commitment to sustainability and to enhance transparency. We are one of the few industries that reports at the global level and have done so since 2004 when the first sustainability report was published.

Our aim is to inform the public about the environmental, social and economic performance of the steel industry measured by our set of 8 sustainability indicators. Our intention is to show progress in fulfilling our Sustainable Development commitments and to demonstrate improved performance trends across the industry over time. These indicators are also increasingly used by institutional investors and investment funds to develop high-level evaluations of industry groups and they can also factor into decision-making processes by NGOs and regulators.

3. BENEFITS OF REPORTING

With every company that reports the worldsteel indicators, coverage and representativeness of the data improves. This results in benefits both for individual member companies and for the industry as a whole, including:

- Recognition of individual member company efforts – providing sustainability indicators data is part of the Steel Sustainability Champions Recognition Programme. Companies must provide data for 6 indicators to be eligible for the recognition as well as fulfilling other criteria. Greenhouse gas emissions and Energy Intensity are not included as part of these 6 indicators since they have a dedicated recognition programme, the "Climate Action Programme".

- Enhanced credibility of the industry’s commitment to sustainable development leading to improved reputation amongst stakeholders.

- Enhanced transparency of worldsteel sustainability communication tools referencing this data (website, reports, fact sheets, etc.) which are used to communicate with various stakeholder groups by worldsteel staff, member companies and via our website.

- Better benchmarking tool for member companies – members can view anonymous results by company for every indicator that they report, so that they can benchmark and improve their own performance. Production details are also included, and results can be downloaded to excel files.
4. HOW TO REPORT DATA

a) Online data collection system
Indicators data is exclusively collected via the online Sustainability Indicator data collection system (The Webtool). From 2018, only online submission is accepted. Submission by excel form, by email or uploading to the system is no longer available. This is to reduce any possible error that often occurs during data management, especially uploading the document which involves the administrator. The system works best with Internet Explorer and Chrome.

b) Confidentiality

- The Webtool is accessible to worldsteel member companies only. All data provided is treated as highly confidential in accordance with guidelines provided by the worldsteel Board of Directors.
- Data is encrypted via https protocol.
- Participating members may only view each other’s data anonymously (companies are assigned a code) and only for indicators for which they themselves have submitted data.
- At worldsteel, the Sustainability Team is responsible for verifying the data and are the only people who can view all the data submitted.
- We maintain a strict Privacy and Cookie policy and take all appropriate measures to protect your data in our servers. Please check our Privacy policy as well as Cookie policy in our website.

A username and password are required to access the Webtool. Members who would like to use the system to provide data as well as to benchmark their data should contact worldsteel at sustainability@worldsteel.org.

c) Webtool structure
The Webtool is divided into three sections:

- **Data Collection** – users can add new sets of data, edit the data, and view their value for each indicator for which they have submitted data. They can also view their historical data. Data can be edited until submission. Once it is submitted, the dataset is locked and can only be edited again by contacting the worldsteel Sustainability Team at sustainability@worldsteel.org.
- **Analytics** – users can view worldsteel average results, including a global value summary and trends as well as number of participating companies and production coverage. Users can also view a summary of and trends in their company results, full data input, and global benchmarking for the indicators they submitted data for. A detailed explanation of this new function is available in the following pages. All the data is available up to 2017 and 2018’s data will be available in October 2019.
- **Help** – User guide, frequently asked questions (FAQ) and Contact details are available in this section.

d) Data entry and management
Indicator data is entered and managed in the “Data Collection” section. The section has three parts; Data Submission, Data Status, and Sustainability reports (these are worldsteel reports).

- To enter data for a new year, go to ‘New Data Submission’.
- Each indicator has its own tab for data entry.
- To save inputs you have entered, click “Save” at the bottom of the tab.
- Once all your data entry in the tabs is saved, you can manage your data in ‘Data Status’. You can edit data by clicking “edit” from the Data Status page until the data for that year has been submitted. You can view data by clicking “details”. You may also delete a dataset using “delete”.
- To export data entered for a specific year to an excel file, click “Details” and then “Export in Excel” at the top-left of the page.
- Once data entry is complete, the dataset can be submitted by clicking “Submit” in the Summary & Submit tab. Once the dataset has been submitted it can no longer be edited or deleted by you. You need to contact the worldsteel Sustainability Team at sustainability@worldsteel.org if you want to edit the data.
- Indicator results for your company are shown in the last tab of the page once data has been “saved” for a specific year.
Clicking ‘Sustainability reports’ will take you to the worldsteel Extranet where all our Sustainable Steel publications are listed.

You may log in and out as many times as desired. Click on “Save” to save your data. Your data will be saved, and you will be able to continue where you left off (until the dataset has been submitted).

Please use a period “.” as the decimal separator (e.g. 1,000.50 or 25.6) when entering values.

e) Data Verification
All data submitted by members via the Webtool is thoroughly checked and verified for accuracy and consistency by worldsteel. Data is cross-checked with information published in company reports and websites. Members are requested to send all the reference documents from where data has been sourced. Please upload a pdf or URL of the reports in the ‘General Information’ section. Inconsistencies are resolved via communication with the member company.

References are essential and help to speed up the verification process
To ensure that the worldsteel verification process is efficient, please use the references and comments box next to every data entry box to provide the report name and page number in which the data is published. Please put Not Available (NA) if no reference is available.

f) Analytics – worldsteel average results and global benchmarking system
The new “Analytics” section, launched at the end of last year and under continuous improvement, gives users the opportunity to see average worldsteel results from the beginning of the data collection programme, coverage data and trends and represents an opportunity for users to anonymous benchmark their performance with the other companies.

- Results can be viewed by fiscal year
- Results of individual companies are shown anonymously
- Benchmark can be done only for the indicators that the company has submitted data for
- Each report can be download by the user in excel

In this section, users can access 3 different reports:

1. worldsteel average results
2. Company results and global benchmarking
3. Results of the Sustainability Reporting Trend Survey

To open a report, the user can select a report from the dropdown menu:
1. **Worldsteel average results** is the first report and is divided into 4 different modules:
   a. **Global value summary** → this page shows worldsteel average results per fiscal year with the number of participating companies submitting each indicator and production coverage of reporting companies against total crude steel production of reporting companies as well as total global crude steel production.
   b. **Global value trends** → this page shows worldsteel average results with values for each indicator from the beginning of the data collection until today.
   c. **Number of participating companies** → this page shows the total number of the companies which have contributed data for one or more indicators since the beginning of this activity and the detailed trend of companies reporting for each indicator since 2003.
   d. **Participation coverage** → this page shows production coverage of the participating companies in terms of percentage of global production as well as total tonnage since 2003.

Each module can be downloaded in Excel by clicking on the top-right of the tables and then clicking on “Export data”.

![Export data button](image)

By exporting data, the user can work on his own to analyse the different results or reports.

2. **Company results and global benchmarking** is divided into 5 different modules. This report is specific for the company logged into the system. All the data refers only to the user company.
   a. **Results summary** → this first page shows the results of the user company's sustainability indicators by year. You can select the year by clicking on the menu on the left.
   b. **Results trends** → this page shows the trends of the user company’s sustainability indicators submitted from the beginning of data collection until today.
   c. **Trends (graphs, parts 1 & 2)** → this is a graphic visualisation page that shows the trend of the company's sustainability indicators representing the yearly performance by Pareto charts.
   d. **Full data input** → the user can find all the data they have provided to the data collection to date. Data is available by year. Data can be downloaded in Excel.
   e. **Global benchmarking (parts 1 & 2)** → Users can benchmark their company’s value for the indicators they submitted data for and see where they stand among all other participating companies. (no company name is shown for confidentiality reasons).

Each module can be downloaded in Excel by clicking on the right of the tables and then clicking on “Export data”. We remind you that all the data are shown anonymously and that the benchmarking is possible just for the indicators that the user has submitted data for. If the user does not submit data for the indicator ‘material efficiency’ for example, they will not see the average of the reporting companies for this indicator.
g) **Indicator Definitions & Calculation Methodology**

The following table provides indicator definitions, calculation method and the inputs required for reporting.

### General Information

<table>
<thead>
<tr>
<th>Required Inputs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company code:</strong> a 4-letter code, contact worldsteel if you do not have one</td>
<td></td>
</tr>
<tr>
<td><strong>Fiscal year and end of fiscal year:</strong> provide a fiscal year of your data set</td>
<td></td>
</tr>
<tr>
<td><strong>Currency and exchange rate:</strong> use currency of your report. Use the historic</td>
<td></td>
</tr>
<tr>
<td>currency converter for the last day of the fiscal year</td>
<td></td>
</tr>
<tr>
<td><strong>Crude steel production (tonnes, 100% owned) and share EAF or BOF:</strong> This is</td>
<td></td>
</tr>
<tr>
<td>the tonnage from facilities 100% owned by the company and steel-</td>
<td></td>
</tr>
<tr>
<td>subsidiaries included for the reporting of environmental and training</td>
<td></td>
</tr>
<tr>
<td>indicators.</td>
<td></td>
</tr>
<tr>
<td><strong>Crude steel production (tonnes, consolidated) and share EAF or BOF:</strong> This</td>
<td></td>
</tr>
<tr>
<td>is the tonnage from facilities 100% owned by the company and</td>
<td></td>
</tr>
<tr>
<td>subsidiaries/joint ventures included for the reporting of financial indicators.</td>
<td></td>
</tr>
<tr>
<td><strong>Currency Name:</strong> Use currency of your report.</td>
<td></td>
</tr>
<tr>
<td><strong>Exchange Rate:</strong> for the end of the fiscal year that you are reporting in</td>
<td></td>
</tr>
<tr>
<td>relation to US dollars. A link to a historical currency converter is provided.</td>
<td></td>
</tr>
<tr>
<td><strong>Annual Revenue:</strong> also called &quot;Net Revenue&quot; or &quot;Net Sales&quot; (gross sales</td>
<td></td>
</tr>
<tr>
<td>minus returns, discounts &amp; allowances). Report based on your company</td>
<td></td>
</tr>
<tr>
<td>including all subsidiaries and joint ventures that are included in its</td>
<td></td>
</tr>
<tr>
<td>consolidated accounts.</td>
<td></td>
</tr>
<tr>
<td><strong>% of Annual Revenue from your steel business:</strong> just the revenue from steel.</td>
<td></td>
</tr>
<tr>
<td><strong>Provide reference documents</strong> for your data by uploading a pdf version or</td>
<td></td>
</tr>
<tr>
<td>URL of the reports.</td>
<td></td>
</tr>
</tbody>
</table>

### Indicator 1: Greenhouse gas emissions

<table>
<thead>
<tr>
<th>Definitions &amp; Remarks</th>
<th>This indicator is collected by the Industry Excellence Team at worldsteel via the CO₂ Data Collection System: <a href="https://benchmarking.worldsteel.org/CO%E2%82%82">https://benchmarking.worldsteel.org/CO₂</a>. Please contact Henk Reimink to report: <a href="mailto:reimink@worldsteel.org">reimink@worldsteel.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This indicator includes CO₂ emissions only as these make up approximately 93% of all steel industry greenhouse gas emissions. Calculations incorporate Scope 1, Scope 2 and Scope 3 emissions, according to the GHG (greenhouse gas) protocol.</td>
</tr>
<tr>
<td></td>
<td>This indicator is calculated using route-specific CO₂ intensities (tonnes CO₂/tonne crude steel cast) for three steel production routes: basic oxygen furnace, electric arc furnace and open hearth furnace. The indicators are also weighted based on the production share of each route.</td>
</tr>
<tr>
<td></td>
<td>For full details on worldsteel’s CO₂ data collection programme and methodology, see the CO₂ Data collection user guide available here on <a href="https://benchmarking.worldsteel.org/CO%E2%82%82">our website</a>.</td>
</tr>
</tbody>
</table>
## Indicator 2: Energy intensity

<table>
<thead>
<tr>
<th>Definitions &amp; Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>This indicator is collected by the Industry Excellence Team at worldsteel via the Energy Data Collection System: <a href="https://benchmarking.worldsteel.org/Energy">https://benchmarking.worldsteel.org/Energy</a>. Please contact Henk Reimink to report: <a href="mailto:reimink@worldsteel.org">reimink@worldsteel.org</a></td>
</tr>
</tbody>
</table>

This indicator is calculated based on data collected via the worldsteel CO2 data collection system (see Indicator 1). It is calculated using route-specific energy intensities (GJ/tonne crude steel cast) for three steel production routes: basic oxygen furnace, electric arc furnace and open hearth furnace. The indicators are also weighted based on the production share of each route.

For full details on worldsteel’s CO2 data collection programme and methodology, see the CO2 Data collection user guide available here on our website.

## Indicator 3: Material Efficiency

<table>
<thead>
<tr>
<th>Definitions &amp; Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>This indicator calculates the percentage of crude steel and co-products (by-products) compared to total output material (i.e. crude steel, co-products and waste landfilled or incinerated).</td>
</tr>
</tbody>
</table>

The system boundary is the EAF and/or integrated steel mill, regardless of ownership (i.e. includes power plants, oxygen plant, etc. even if not owned).

**Notes:**
- **Waste** includes those materials that ultimately end up in a landfill (onsite or offsite) or are incinerated (with or without heat recovery). This does NOT include utilities waste (e.g. fly ash).
- **Slags** are only considered waste if they are landfilled or incinerated. Stored slags or slags used for landscaping purposes are not considered waste but by-products.
- Co-products (by-products) are residues that are used; residues not used are considered waste (all flows landfilled or incinerated). Scrap steel should NOT be included as a co-product.
- Co-products can also be referred to as by-products
- Report based on the most significant waste and co-product flows (to keep reporting simple).

Reporting basis is the member company including its steel-business subsidiaries (does not include joint ventures).

<table>
<thead>
<tr>
<th>Required Inputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material sent to landfill (tonnes)</td>
</tr>
<tr>
<td>Material sent to incineration (tonnes)</td>
</tr>
<tr>
<td>Co-products (by-products) produced (tonnes)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Calculation &amp; Unit of Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material efficiency = (crude steel + co-products) / (crude steel + co-products + waste), where waste = material sent to landfill + material sent to incineration</td>
</tr>
</tbody>
</table>

Result is presented as: % of material converted to products & co-products

The worldsteel average result for this indicator is weighted by member company “100% owned” crude steel tonnage.
### Indicator 4: Environmental management systems (EMS)

**Definitions & Remarks**

Measures the number of employees and contractors working in registered steel production facilities.

Registered production facilities include those that have been certified to a recognised international environmental management system standard such as EMAS (EU Eco-Management and Audit Scheme) or ISO 14001.

Reporting basis is the member company including its steel-business subsidiaries (does not include joint ventures).

A calculation based on crude steel production is available from this year, 2019.

**Required Inputs**

- Number of Employees and Contractors Working in Registered Production Facilities
- Total Number of Employees and Contractors Working in Production Facilities
- Tonnes of steel produced by Registered Production Facilities

**Calculation & Unit of Measure**

\[
\frac{\text{Number of employees and contractors working in registered production facilities}}{\text{Total number of employees and contractors working in production facilities}}
\]

Result is presented as: % of Employees and Contractors Working in Registered Production Facilities

The worldsteel average result for this indicator is weighted by member company “100% owned” crude steel tonnage.

### Indicator 5: Lost time injury frequency rate

**Definitions & Remarks**

This indicator is collected by the Safety Team at worldsteel via the Safety Data Collection system. Please contact Andrew Purvis to report: purvis@worldsteel.org

A lost time injury is an incident that causes an injury that prevents the person from returning to his next scheduled shift or work period. Lost time injury frequency rate includes fatalities and is calculated based on figures including contractors and employees.

**Calculation & Unit of Measure**

\[
\frac{\text{lost-time injuries}}{\text{million hours worked}}
\]

Result is presented as: injuries / million hours worked
### Indicator 6: Employee training

| Definitions & Remarks | This indicator measures the total days of training per employee. The result of the calculation is the average number of training days per employee and year. Training may include various types of development programmes such as classroom instruction, computer-based training, self-study and learning or on-the-job instruction. Employee training does not focus on safety and health but may include it.  

**Notes:**  
- Includes production and non-production facilities.  
- Number of contractors and contractor training are NOT included in this calculation.  
- A "Training Day" is an 8-hour day.  
- Total number of employees refers to all employees from the member company including steel-business subsidiaries (this does NOT mean employees trained only).  

Report basis is the member company including its steel-business subsidiaries (does not include joint ventures). |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Inputs</td>
<td></td>
</tr>
</tbody>
</table>
- Total Days of Training  
- Total Number of Employees |
| Calculation & Unit of Measure | Total days of training / number of employees, where a training day is an 8-hour day.  
Result is presented as: Training Days / Employee  
The worldsteel average result for this indicator is weighted by member company “100% owned” crude steel tonnage. |

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### Indicator 7: Investment in new processes and products

| Definitions & Remarks | Includes expenditures on capital and research & development.  
**Capital expenditures** include money used to acquire or improve long term assets such as property, plant and equipment. This may also include investment in intangible assets, such as copyrights, trademarks, patents, computer programs, and other non-physical resources that provide some advantage to the company in the marketplace.  
**Research & development (R&D) expenditures** includes money used for discovering new knowledge about products, processes, and services, and then applying that knowledge to create new and improved products, processes, and services that fill market needs.  

**Notes:**  
- All expenditures should be based on direct company spending and included in the year they were made.  
- R&D expenditures should include direct costs (e.g. payroll and overhead costs allocated to R&D). Direct costs should not include government tax credits.  
- R&D expenditures should not include indirect costs (e.g. contributions in kind to a university) as these make the calculation too cumbersome and less consistent (and the data is hard to come by).  
- Financial inputs should be reported as they are in the company financial annual report.  
Report including results from all subsidiaries and joint ventures that are included in the company’s consolidated accounts. |
## Indicator 8: Economic value distributed (EVD)

### Definitions & Remarks

Aims to quantify the value distributed to society by the steel industry. It includes direct and indirect contributions, regardless of the country's financial structure (e.g., all contributions are captured - whether made directly from the company to the community or indirectly from the company through government taxes, shareholder dividends or employee wages, etc.).

**Notes:**
- Financial inputs should be reported as they are in the company financial annual report.
- Report including results from all subsidiaries and joint ventures that are included in the company's consolidated accounts.

### Required Inputs

- **Economic Value Distributed (EVD)**
  - Operating costs (payments to suppliers, contractors, etc.; should be reported in the year in which they were accrued; “cost of sales” and “selling & administrative expenses” values may be used as a proxy for operating costs, however, if possible all labour costs should be included under employee wages and benefits to avoid double-counting.)
  - Employee wages and benefits (gross values, including employee tax paid; if included under operating costs – please add a note in the comments box and do not include here to avoid double-counting).
  - Dividends paid to all shareholders (including non-controlling interest)
  - Interest payments made to providers of loans
  - Payments to government (gross taxes and royalties, not including employee tax paid). Gross taxes are defined as the amount of tax calculated on the taxable income before applying any tax rebates or credits.
  - Community investments (voluntary contributions and investments of funds in the broader community, including donations and scholarships, etc.).

### Calculation & Unit of Measure

- **Economic Value Distributed = (Operating costs + Employee wages and benefits + Dividends paid to all shareholders + Interest payments made to providers of loans + Payments to government + Community investments)**

Result is presented as: Billion US Dollars and US Dollars as % of total revenue of companies reporting.

**Note:** if the user doesn’t have the data requested in the input section, the user can submit an alternative EVD value by clicking on the box called alternative calculation. The user is asked to provide worldsteel with the details of the calculation method used.
h) How to submit data

1. Login to the worldsteel Benchmarking System: https://benchmarking.worldsteel.org/. If you do not have a User ID and Password, please contact us at sustainability@worldsteel.org

2. Click ‘Sustainability’ under Assessment in the menu on the left once you are logged in.

3. Click ‘New data submission’ under ‘Data Collection’ to start your data entry.
4. Start with the ‘General Information’ section. Detailed explanation is available by placing the cursor over the icon ‘i’ in the black circle. You can upload multiple PDF files or URLs of reference documents in this section.

5. Scroll down and move to the data entry section for each of the 5 indicators.

Each indicator has its own tab. If you do not have data for one or more indicators, please tick the box ‘I don’t have data for this indicator’ which enables you to submit data when you do not have data for all the 5 indicators. The result of each indicator is displayed at the bottom of each tab when all required values are entered.
6. You can view the overview result of your data entry in the Summary & Submit tab. Once you are confident with the data you have entered, you can submit all data by pressing the ‘Submit’ button here. Once you submit, you won’t be able to edit your entries. If you want to come back to your entries and submit later, please save and leave the tab. You can edit the entries by clicking the ‘Edit’ button in the Data Status menu. If you need to make changes once you have submitted data, please contact sustainability@worldsteel.org.
5. **ABOUT THE WORLD STEEL ASSOCIATION**

The World Steel Association (worldsteel) is one of the largest and most dynamic industry associations in the world, with members in every major steel-producing country. worldsteel represents steel producers (including 9 of the world’s 10 largest steel companies), national and regional steel industry associations, and steel research institutes. Members represent around 85% of global steel production. worldsteel’s mission is to act as the focal point for the steel industry, providing global leadership on all major strategic issues affecting the industry, particularly focusing on economic, environmental and social sustainability.

6. **WORLDSTEEL SUSTAINABILITY TEAM**

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