Nasdaq Sustainable Bond Network
User Guide and Data Specification

Contents
1. Data ............................................................................................... 2
   1.1 Issuer Details ................................................................................... 2
   1.2 Standards and Documents .............................................................. 2
   1.3 Framework Details ........................................................................... 2
   1.4 Allocation Reports ........................................................................... 3
   1.5 Issuance Assurance / Bondholders report ........................................... 3
   1.6 Impact Reports ................................................................................ 3
2. Data Sources .................................................................................. 4
3. Calculations .................................................................................... 4
   3.1 Allocation ...................................................................................... 4
      3.1.1. Allocation per Sustainable Development Goals (“SDGs”): ............ 4
      3.1.2. Other Allocation Calculations: .................................................. 5
   3.2 Impact ........................................................................................... 6
      3.2.1. Underlying Assumptions .......................................................... 6
      3.2.2. Calculations ............................................................................ 6
4. Portfolio Registration ......................................................................... 7
   4.1 Import Portfolio on Bond Level ....................................................... 9
   4.2 Import Portfolio on Issuer Level ..................................................... 9
   4.3 Registering Holdings Manually ....................................................... 9
5. Subscriptions .................................................................................. 10
   5.1 Subscription events ....................................................................... 11
   5.2 Notifications ................................................................................ 11
      5.2.1. Notification in portal ............................................................... 11
      5.2.2. Notification by e-mail ............................................................... 11
      5.2.3. Process of Subscribing ............................................................ 11
6. Manage Users. ................................................................................ 11
7. Make Holdings Visible to Issuers ..................................................... 12
The Nasdaq Sustainable Bond Network

Investing in tomorrow has a big impact on the world today. The Nasdaq Sustainable Bond Network furthers the investment process for sustainable bonds by allowing investors to source detailed information for investment due diligence, selection and monitoring. The Nasdaq Sustainable Bond Network holds data on allocation, impact, frameworks, certifications and bonds.

There are several different ways of accessing the data. This user guide and data specification relates to the Nasdaq Sustainable Bond Network Portal. Please reach out to us if you would like to learn more about the different ways of accessing the data.

1. Data

This document describes the Nasdaq Sustainable Bond Network Portal for Investors. The Nasdaq Sustainable Bond Network data is also available through feed dissemination or through files. For a full list of available data fields, please refer to the Market Data Feed specification, available here.

1.1 Issuer Details

Includes general information on the issuer, such as the issuer’s home country, sector and type.

**Issuer Type and Sector:** Reflects a best-effort mapping by Nasdaq or the issuer and is not aligned to any specific industry standard.

**Issuer Name:** Certain issuers have multiple accounts on the Nasdaq Sustainable Bond Network. This happens in cases where they have distinct issuing entities or when they report separately on multiple frameworks, e.g. issuers with both a social and a green bond framework. Issuers with multiple accounts are linked together by a parent organization code.

**Country:** The country represents the issuers' country of incorporation, not necessarily the country of risk.

1.2 Standards and Documents

**Standard:** The standard(s) the issuer complies with, e.g. the Green Bond Principles. This standard covers all bonds registered on the issuers' profile. Issuers who issue bonds under multiple standards have multiple profiles on the Nasdaq Sustainable Bond Network to separate their characteristics.

**External Review Provider:** The external reviewer is defined as an agency that has certified, verified or otherwise assessed the sustainability of the framework or individual bonds pre-issuance. It is not intended to hold information on any certifications on the bonds post-issuance.

**Framework:** All issuers on the Nasdaq Sustainable Bond Network must have a framework or a framework-like document that describes the issuers’ alignment with its chosen set of standards. If the issuer has not published a standalone framework, information will instead be found in the Framework form on the network.

1.3 Framework Details

**Introduction:** Voluntary field used for general framework introductions.

**Use of Proceeds, Process for Selection and Evaluation, Management of Proceeds & Reporting:** All refers to the four core principles of the Green and Social Bond Principles. The texts are intended to reflect the information found in existing frameworks.
Methodology: Outlines the issuers’ processes around certifications and/or external reviews.

Framework Date: First publication date of latest framework.

Disclaimer: Only used by issuers participating actively. Used to clarify any legal restrictions or constraints pertaining to the issuer’s framework.

Eligible Project Categories: Defines the project categories that are eligible for financing from the issuers’ sustainable bond proceeds. The categories are aligned with those found in the Green and Social Bond Principles.

Sustainable Development Goals (“SDGs”): SDGs and SDG Targets describe which of the UN Sustainable Development Goals the financed projects within each category addresses. The Nasdaq Sustainable Bond Network does not validate these assertions in any way.

Target Population: Refers to the Target Population benefitting from the investments made with Social Bond Proceeds, as defined in the Social Bond Principles.

1.4 Allocation Reports


Allocated Proceeds: Defined as the proceeds allocated to each eligible project category selected in the Framework form.

% Disbursed: Refers to the share of allocated proceeds that has been paid out or otherwise used in the respective project category. This may be 100% but there could also be cases where proceeds have been committed but are still withheld.

Note on Allocation: This is an undefined free text field where the issuer can clarify or detail its reported allocation.

Custom Project Category Allocation: Is not used for aggregation of data but only for informational purposes.

Report Period: Refers to the period in which the reported proceeds have been allocated to the respective eligible projects categories.

1.5 Issuance Assurance / Bondholders report

Post-Issuance Assurance Report: Includes a link to a report from an independent third party giving a reasonable or limited assurance on the report from the issuer.

Bondholders report: Includes a link to the issuers latest allocation and/or impact report.

1.6 Impact Reports

Reporting Methodology for Project Category: Methodology that applies to all KPIs under the respective project categories.

Impact Metrics: Note that metrics for GHG emissions savings, energy generation/savings, water savings etc. are defined as yearly impact whilst static values such as Number of Green Certified Buildings are not. Generally, “reduced” means a direct or absolute reduction in operation, “avoided” refers to a baseline/alternative reference scenario and “savings” means the sum of reduced and avoided energy/GHG.

Metric Value: The metric value reflects the impact generated by the projects financed by the allocated proceeds reported in the allocation section.

Metric Type: The metric type indicates whether the metric has been calculated on an Ex-ante (projected/estimated) or Ex-Post basis (calculated based on historic data). If the metric combines both approaches, Mix is selected.

Metric Description: Refers to details concerning the specific KPI, e.g. benchmarks used, guidelines followed or data sources leveraged.

Allocation/Impact Report Date: The publication date of the latest report.

Estimated GHG Emissions Avoided per Million Invested: The estimated yearly GHG emissions avoided or reduced per million invested in your bonds. This figure is generally calculated as the total GHG emissions avoided or reduced per year divided by the outstanding nominal value of sustainable bonds.
2. Data Sources
The data available on the Nasdaq Sustainable Bond Network come from three distinct sources:
A) Sourced directly by Nasdaq or by Nasdaq’s partners’ dedicated teams of analysts.
B) Submitted by actively participating issuers (Nasdaq ESG Transparency Partners).
C) Submitted by a third party appointed by the issuers, so called Agency Users.
Upon request, our team of analysts can add issuer and bond data found missing on the portal. The network function also enables investors to contact actively participating issuers directly.
The source for each issuer is shown on its profile and on the respective bond pages. Data registered by Agency Users appointed by the issuers will be displayed with source: Issuer.

3. Calculations
3.1 Allocation
For premium portal users, the Nasdaq Sustainable Bond Network calculates the share of the portfolios committed to e.g. Sustainable Development Goals, Project Categories and Sectors. This section outlines the methodology used when calculating these shares.

3.1.1 Allocation per Sustainable Development Goals (“SDGs”):
The share of the investor portfolio attributed to each of the Sustainable Development goals are calculated as following:
1. The total portfolio volume is converted to EUR, using the exchange rates available at the European Central Bank’s website on the calculation date.
2. The amount invested in each issuer is weighted across the project categories reported by the issuer. E.g. If the issuer has reported a 50% split between Green Buildings and Renewable Energy in their allocation report, 50% of the portfolio’s investment in the issuer is attributable to each of the project categories.

3. Each Eligible Project Category registered for an issuer can be tagged with one or multiple SDGs. If one project category has been tagged with multiple SDGs, the allocation towards each of the goals will be split evenly across them.

Example:

<table>
<thead>
<tr>
<th>Portfolio X Holdings</th>
<th>Issuer</th>
<th>Holding</th>
<th>EUR Holding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment 1</td>
<td>A</td>
<td>1 000 000 €</td>
<td>1 000 000 €</td>
</tr>
<tr>
<td>Investment 2</td>
<td>B</td>
<td>2 000 000 £</td>
<td>2 220 000 €</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Issuer A - Allocation Report</th>
<th>Allocated Proceeds</th>
<th>Tagged SDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Buildings</td>
<td>10 000 000 €</td>
<td>9</td>
</tr>
<tr>
<td>Renewable Energy</td>
<td>7 000 000 €</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Issuer A - SDG Division</th>
<th>Holding’s Contribution to SDG</th>
<th>Contribution (EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>588 235 €*</td>
<td>588 235 €</td>
</tr>
<tr>
<td>7</td>
<td>411 765 €</td>
<td>411 765 €</td>
</tr>
</tbody>
</table>

*Note: 1MEUR = 10MEUR

10MEUR = Portfolio’s holding in Issuer A

<table>
<thead>
<tr>
<th>Issuer B - Allocation Report</th>
<th>Allocated Proceeds</th>
<th>Tagged SDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Efficiency</td>
<td>20 000 000.00 €</td>
<td>3 &amp; 7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Issuer B - SDG Division</th>
<th>Portfolios contribution to SDG</th>
<th>Contribution (EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1 000 000 €</td>
<td>1 110 000 €</td>
</tr>
<tr>
<td>7</td>
<td>1 000 000 €*</td>
<td>1 110 000 €</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SDG</th>
<th>Total Allocation per SDG</th>
<th>Share %</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1 110 000 €</td>
<td>34%</td>
</tr>
<tr>
<td>7</td>
<td>1 521 765 €</td>
<td>47%</td>
</tr>
<tr>
<td>9</td>
<td>588 235 €</td>
<td>18%</td>
</tr>
</tbody>
</table>

*Note: Portfolio’s holding in Issuer B°= 1,110,000.00 EUR

3.1.2. Other Allocation Calculations:

All other calculations done by the portal based on allocated proceeds follow the same steps. For example, the share of an investor’s portfolio allocated to a certain project category is calculated as the sum of the portfolio’s holding in each issuer multiplied by that issuers’ reported share of allocated proceeds to the same category. In effect:

\[ \text{Portfolio's total investment in project category } Z = \sum_{i=1}^{i} X_i \times \frac{Y_{i,z}}{Y_i} \]

Where:

\( X_i \) = Portfolio X’s total holding in issuer (i).

\( Y_{i,z} \) = Issuer (i)’s reported allocation in category Z

\( Y_i \) = Issuer (i)’s total reported allocation.
All currencies are converted to EUR on the calculation date using the daily FX rates published by the European Central Bank.

3.2 Impact

3.2.1. Underlying Assumptions

The calculated aggregated impact is based on the following assumptions:

1. All outstanding bonds contribute equally to the issuers’ reported impact.

2. All outstanding bonds issued under the same framework are assumed to have the same division of use of proceeds. The issuer reports the allocated proceeds on an aggregated level across its eligible project categories.

3. In cases where issuers report impact on a bond-level basis, the total impact is thus aggregated on the issuer level before they are included in the calculations.

4. The latest reported impact figures gives a snapshot of the impact generated by the financed pool. Thus, timing of investments does not affect the presented values.

3.2.2. Calculations

The portfolio’s aggregated impact is calculated by weighting the portfolio’s holding with each issuers’ reported allocated proceeds after converting all figures to EUR using the exchange rates available on the European Central Banks’ website on the calculation date.

The aggregated impact metric can be viewed at three different levels:

1. KPI-level, with additional details on underlying project categories.  
   **Example: Total Energy Use Avoidance from Green Buildings**

2. Unit of measurement level, with additional details on underlying project categories.  
   **Example: Total GHG Savings**

3. Issuer level, with additional details on underlying KPIs.  
   **Example: Total GHG Savings per issuer.**
Calculation Example for aggregated metric value in a single KPI

\[
\text{Portfolio's aggregated KPI}_i = \sum_{i=1}^{n} X_i \cdot Y_i \cdot Y_{KPI_i}
\]

Where:

- \( X_i \) = Portfolio X's total holding in issuer (i).
- \( Y_i \) = Issuer (i)'s total reported allocation
- \( Y_{KPI_i} \) = Issuer (i)'s reported value for KPI

The aggregated metric excludes issuers who have not reported on the relevant KPI.

4. **Portfolio Registration**

1.
2. Investors are able to register their portfolios based on bonds or based on holdings in issuers. The chosen method does not affect the underlying calculations or functionalities on the platform.

3. When registering the portfolio it is possible to search the platform for bonds based on the following filters:
   a. Issuer Name: Name of the issuing entity
   b. Issuer Type: Please see section 1.1 for more details.
   c. Sector: Please see section 1.1 for more details.
   d. Country: The bond issuers’ country of incorporation.
   e. External Review Provider: Certifier/verifier of the framework.
   g. Sustainable Development Goal: Searching on bonds with e.g. SDG 7 will result in a list of all bonds issued under a framework that specifically addresses the Sustainable Development Goal number 7 from the UN.
   h. Financed Project Categories: Refers to the eligible project categories identified in the framework that the bonds have been issued under.
4.1 Import Portfolio on Bond Level

When selecting to register a portfolio on the bond level, an investor is first prompted with an option to upload the portfolio. This is done by downloading a template accessible in the portal, populating the template with the fields requested and ultimately uploading the same template into the portal. This will automatically create a portfolio that is ready for analysis.

4.2 Import Portfolio on Issuer Level

Investors who wishes to register their holdings at the issuer level also have the option to upload the portfolio using the template supplied by the portal. Bonds are better suited for automatic registration as they have unique identifiers in the system (FIGI Codes). However, if the portal does not recognize an issuer name uploaded in the template, it will give nearby suggestions and allow the user to search on the issuers name before registering the portfolio.

When bonds are added manually on the issuer level, the user needs to insert:

a. A placeholder name for the holding, e.g. ISIN or other identifier you use.
b. Currency of holding, e.g. the currency of the bonds you hold.
c. The holding value, in the bonds’ currency.

4.3 Registering Holdings Manually

When bonds are added manually on the issuer level, the user needs to insert:

a. A placeholder name for the holding, e.g. ISIN or other identifier you use.
b. Currency of holding, e.g. the currency of the bonds you hold.
c. The holding value, in the bonds’ currency.
5. **Subscriptions**

The portal allows users to register to receive notifications when updates are made based on a number of key events.
5.1 Subscription events
A portal user can subscribe to the following events:
- New framework is published
- Allocation/Impact Report is published
- Sustainable Bond Standards are updated
- Issuer is delinquent on reporting
- Issuer is deleted
- Bond is deleted

5.2 Notifications
On occurrence of the subscribed events, the user is notified in the portal or by e-mail.

5.2.1 Notification in portal
This is the default option where all the notifications are displayed under your notification menu.
Every time a user logs in to the portal, all unread notifications are displayed under the notification menu in the
descending order (latest to earliest) of event date.

5.2.2 Notification by e-mail
Notifications by e-mail are only sent to issuers who have selected this option in the portal. The e-mail notifications
are set up on the user level, not the account level.
Each notification has the following details:
   a. Event Title
   b. Event Date (YYYY/MM/DD)
   c. Issuer Name in case the event is related to an issuer
   d. Bond Name & FIGI Code in case the event is related to bond

5.2.3 Process of Subscribing
A user can add multiple subscriptions based on the need. Once the events are selected, the user is prompted to
apply it to one or multiple portfolios. For example, a user selects to subscribe to updated reports and selects
Portfolio 1 & Portfolio 2. This means that the user will receive a notification if any of the issuers in these portfolio
publishes an Allocation/Impact Report.

6. Manage Users
Each account can hold two user types, 1) Administrators and 2) Users. Administrators are authorized to create, edit
and remove other users on the account. General users are only allowed to access the functionality of the portal.
An investor admin is able to perform the following actions on the users:
   a. Register a New Admin / User
   b. Edit an active Admin / User
   c. Delete a Admin / User
   d. Register New Admin / User
An investor admin needs to provide the following details when registering a new user:

- First Name
- Last Name
- Email
- Issuer Contact (Yes / No)
- Admin (Yes / No)

Once all data is registered correctly, a message will appear saying "User registered successfully. A verification email has been sent to the new user." That sends out an activation link to the newly registered user who can immediately access the portal.

**Issuer Contacts**

All users can be issuer contacts. If the user is registered as an issuer contact, its e-mail will be made visible to all issuers that the investor has registered in its portfolios. No further information will be shared with the portfolio issuers.

The same functionality is implemented on the issuers’ accounts, whereas their option is to select whether the users should be investor contacts.

#### 7. Make Holdings Visible to Issuers

All investors have an option on the landing page to make their holdings visible to the issuers registered in their portfolios. This is a voluntary feature that is of great benefit to the issuers. If the option is selected, the issuer will only be able to see the Investor Account Name and the monetary value of the investor’s holding. The option is found at the bottom of the landing page.