

Nasdaq Sustainable Bond Network

User Guide and Data Specification

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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

Introduction: An introduction to the issuer's latest allocation/impact report. Free text, undefined.

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.

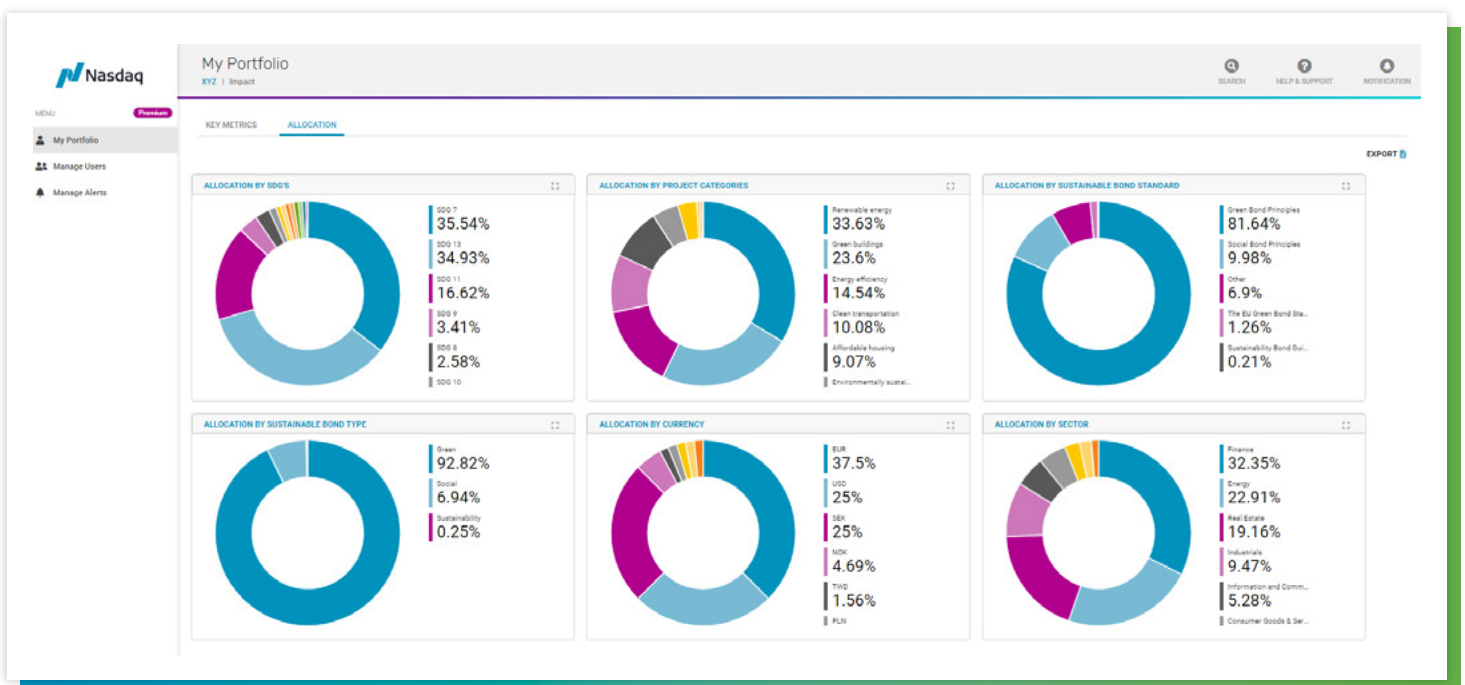
Upon request, our team of analysts can add issuer and bond data found missing on the portal. The network function also enables investors to contact actively participating issuers directly.

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.

- 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.
- 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:

Portfolio X Holdings	Issuer	Holding	EUR Holding
Investment 1	A	1 000 000 €	1 000 000 €
Investment 2	B	2 000 000 €	2 220 000 €

Issuer A - Allocation Report	Allocated Proceeds	Tagged SDGs
Green Buildings	10 000 000 €	9
Renewable Energy	7 000 000 €	7

Issuer A - SDG Division	Holding's Contribution to SDG	Contribution (EUR)
9	588 235 €*	588 235 €
7	411 765 €	411 765 €

* Note: $1MEUR * \frac{10MEUR}{17MEUR} = \text{Portfolio's holding in Issuer A} * \frac{\text{Issuer A's allocation to SDG 9}}{\text{Issuer A's total allocation}} = 588,235.00 \text{ EUR}$

Issuer B - Allocation Report	Allocated Proceeds	Tagged SDGs
Energy Efficiency	20 000 000.00 €	3 & 7

Issuer B - SDG Division	Portfolios contribution to SDG	Contribution (EUR)
3	1 000 000 €	1 110 000 €
7	1 000 000 €*	1 110 000 €

SDG	Total Allocation per SDG	Share %
3	1 110 000 €	34%
7	1 521 765 €	47%
9	588 235 €	18%

* Note: Portfolio's holding in Issuer B*50%=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:

$$\text{Portfolio's total investment in project category Z} = \sum_{i=1}^i X_i * \frac{Y_{i,Z}}{Y_i}$$

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

UNIT OF MEASUREMENT	AGGREGATED VALUE	# ISSUER TYPE	# SECURITIES	# ISSUERS	# COUNTRIES
Annual Energy Avoided below national building standards (kWh/m2)	134.44	1	32	23	6
CO2 Avoided (Tonnes CO2)	271.73	4	25	10	3
Green Buildings	41.26	1	5	2	1
Clean Transportation	53.33	2	10	3	0
Energy Efficiency	177.14	1	10	5	2
Annual Energy Production On-Site (MWh)	274.20	7	77	4	7
Km of clean transportation generated (Km)	2,262.22	20	34	56	3
Km of clean transportation infrastructure capacity (Km)	1,297.77	33	23	4	5

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 issuer 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 Bank's 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

$$\text{Portfolio's aggregated KPI}_i = \sum_{i=1}^i X_i * Y_i * Y_{i_{KPI}}$$

Where:

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

Y_i = Issuer (i)'s total reported allocation

$Y_{i_{KPI}}$ = Issuer (i)'s reported value for KPI_i

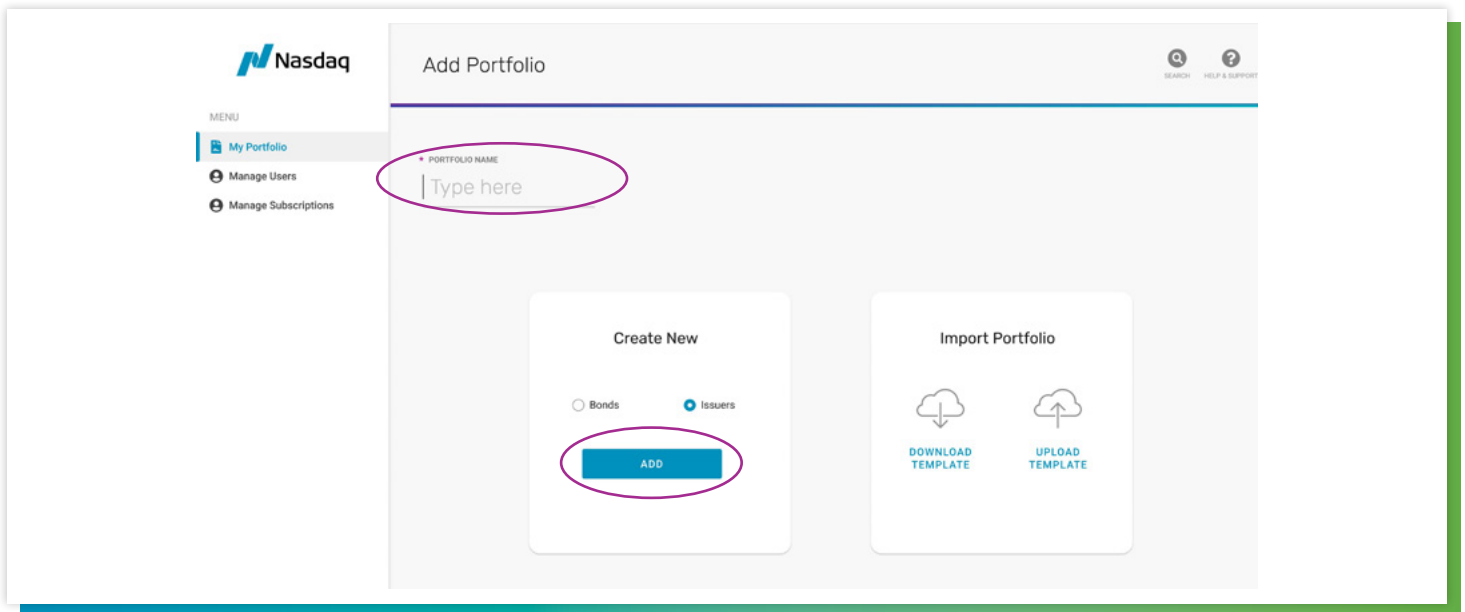
The aggregated metric excludes issuers who have not reported on the relevant KPI.

4. Portfolio Registration

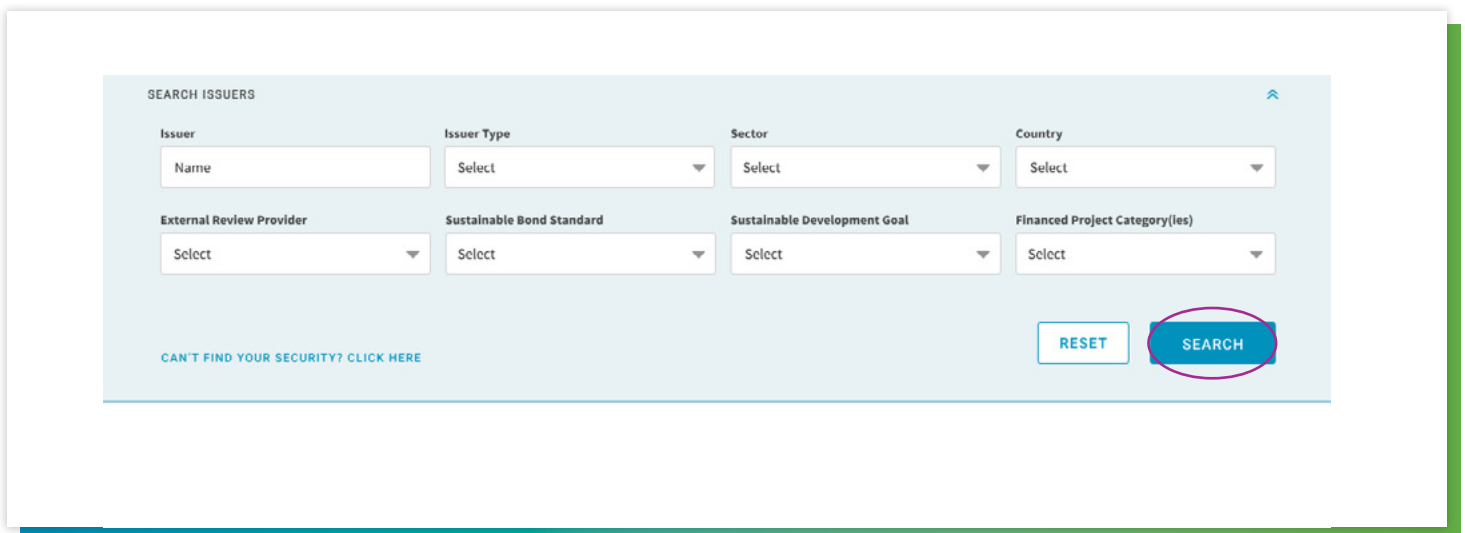
1.

The screenshot displays the 'My Portfolio' dashboard on the Nasdaq platform. The interface includes a left-hand menu with options like 'My Portfolio', 'Manage Users', and 'Manage Subscriptions'. The main content area, titled 'Overview', features six portfolio cards arranged in a 2x3 grid. Each card provides key performance indicators such as 'Issuers past report deadline', 'Certified' percentage, and 'Reported Impact' percentage. Below these metrics, a grid of Sustainable Development Goals (SDG) icons is shown, with some icons highlighted in red, yellow, or green. A purple oval highlights the 'ADD PORTFOLIO' button in the top right corner of the dashboard. At the bottom, there is a footer with a disclaimer about Nasdaq's support for the UN's SDGs and a checkbox for 'Make my holdings visible to the Issuers'.

Portfolio	Issuers past report deadline	Certified	Reported Impact
Portfolio 1	05 / 80	100 %	95 %
Portfolio 2	20 / 30	50 %	38 %
Portfolio 3	30 / 92	89 %	60 %
Portfolio 4	22 / 80	10 %	56 %
Portfolio 5	42 / 80	42 %	98 %
Portfolio 6	77 / 80	92 %	34 %



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. |
| f. Sustainable Bond Standard: | E.g. The Green Bond Principles. |
| 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 wish 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 issuer's name before registering the portfolio.

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

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

The screenshot displays the 'My Portfolio' interface on the Nasdaq platform. The top left features the Nasdaq logo and a menu with options: 'My Portfolio', 'Manage Users', and 'Manage Subscriptions'. The main content area is titled 'My Portfolio' and includes a search bar for issuers. Below this, the portfolio name 'Portfolio XYZ' is shown, along with links for 'IMPACT' and 'IMPORT PORTFOLIO'. A section for 'SUSTAINABLE DEVELOPMENT GOALS (5)' features icons for goals 1 (No Poverty), 3 (Good Health and Well-being), 4 (Quality Education), 6 (Clean Water and Sanitation), and 7 (Affordable and Clean Energy). To the right, three key metrics are displayed: '05/80 Issuers Past Report Deadline', '80% Certified Issuers', and '72 Issuers Reported Impact'. Below these, three more metrics are shown: '80 Issuers', '1180 Bonds', and '10 Billion EUR In Holdings'. A note states: 'Nasdaq fully supports the Sustainable Development Goals ("SDG's") created by the United Nation ("UN"). Corresponding logos & icons are used for informational purposes to inspire and help promote these goals for a more sustainable world.' The 'LISTED ISSUERS' section includes a table with columns for Name, Standard, Type, Framework, External Review, and Add Holdings. A 'SAVE' button is located to the right of the table. Below the table, there are input fields for adding new holdings, including a text box for 'Enter ISINs, FIGI Codes or Name of holding', a dropdown for 'Select Currency', and a text box for the holding value.

NAME	STANDARD	TYPE	FRAMEWORK	EXTERNAL REVIEW	ADD HOLDINGS
Nordic Investment Bank	Green Bond Principles	Supranational	Link	Link	+

Input fields for adding holdings:


- Enter ISINs, FIGI Codes or Name of holding
- Select Currency
- 00.00

Example holding:

- NIB 101 2021
- SEK
- 200,000,000

5. Subscriptions

The portal allows users to register to receive notifications when updates are made based on a number of key events.

 **Add Subscription** ✕

*** Subscription Name**

*** Select Event**

Sustainable Bond Framework published Allocation/Impact Report published Standards updated Issuer missed the reporting date

New bond added Issuer deleted Bond deleted

*** Select**

Portfolio Issuer

In Portal Notification Email Notification

CANCEL SAVE

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:

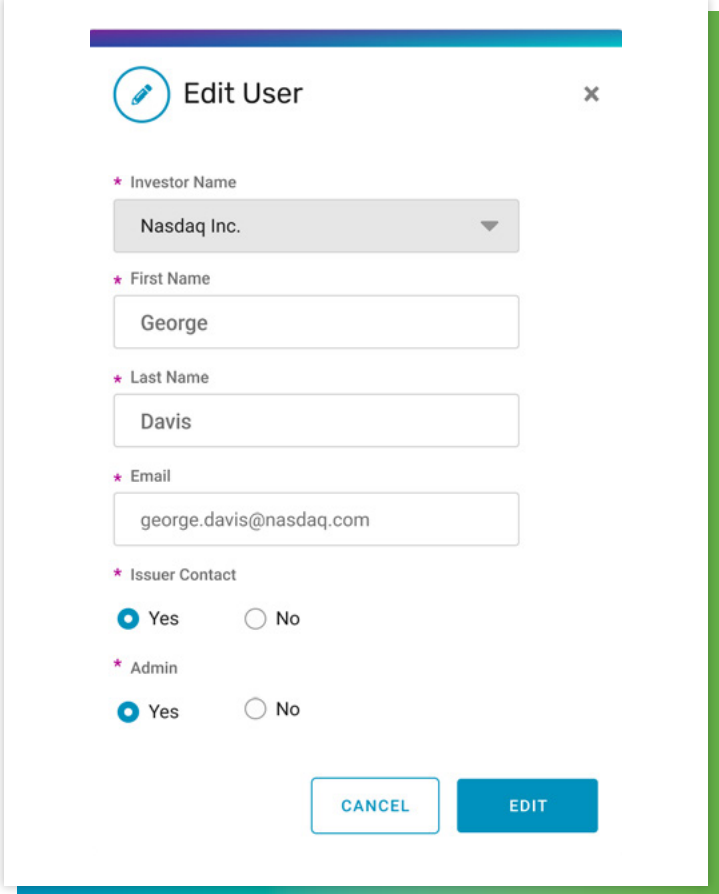
- a. First Name
- b. Last Name
- c. Email
- d. Issuer Contact (Yes / No)
- e. Admin (Yes / No)


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.



 Edit User
×

* Investor Name

* First Name

* Last Name

* Email

* Issuer Contact
 Yes No

* Admin
 Yes No

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.