

IATI Datastore Query Builder

User guide

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About the IATI Datastore Query Builder

[The IATI Datastore Query Builder](#) is an online tool that offers access to development and humanitarian data that has been published according to the [IATI Standard](#). This complements IATI's existing suite of online tools for data users, such as [d-portal](#) and allows for much more detailed queries and searches of published data than was previously possible.

The Query Builder facilitates complex searches of spending and activities published according to the IATI Standard by donor governments, development finance institutions, UN agencies, non-governmental organisations, foundations and private sector organisations. The Query Builder provides users with data available from the [IATI Datastore](#). This document gives an overview of how to use the Query Builder and its various functions.

What data can I access?

The Query Builder provides access to development and humanitarian data that complies with the most up-to-date rules of the IATI Standard:

- Find data from organisations that published their data according to version 2 of the IATI Standard.
- Find data that adheres to the IATI Standard's Schema. The IATI Schema provides the exact order and format in which publishers should provide their IATI files. Technical information about the IATI Schema can be found on the [IATI website](#).

The Query Builder queries the Datastore, retrieves the data requested and outputs it in a selected format. It outputs the raw data as published and does not process or aggregate the data.

How to use the IATI Datastore Query Builder

The Query Builder works by returning the IATI data that you need by first selecting how you would like to *filter* the data; then selecting how you would like to *structure* the data. These selections are made in the tool over four tabs: **Core Filters**, **Additional Filters**, **Output Format** and **Results**. Detailed explanations for how to use each tab follow this page.

Follow 4 steps guided by tabs

The screenshot shows the IATI Datastore Query Builder interface. At the top, there is a navigation bar with the IATI logo (International Aid Transparency Initiative) and four menu items: HOME, ABOUT, QUERY BUILDER (which is highlighted with a red underline), and API DOCUMENTATION. Below the navigation bar, the main heading is "Query Builder" in large white text on a dark blue background. Underneath, a sub-heading reads: "The Query Builder allows you to build common queries to obtain data from the IATI Datastore in CSV, XML and JSON format." Below this, there is a horizontal flow of four steps, each in a white circle connected by a line: 1. Core Filters, 2. Additional Filters, 3. Output Format, and 4. Results. All four steps are circled in red. Below the flow, there is a search bar with the placeholder text "Text search" and a magnifying glass icon. Below the search bar, there is a note: "Have minimum 1-2 other filters selected to avoid searching the entire database".

Step 1 Core filters: select basic filters to apply to your search of IATI data

The many available filters in the Query Builder relate to elements in the IATI Standard. For example, to filter by data that has been published by a particular organisation, you could select that publisher in the *Reporting Organisation* filter. The **Core Filters** tab allows you to build queries which utilise the basic filters which are most commonly applied to IATI data. Here, you can filter the data that is returned according to items in the following table.

Tab 1: Core Filters

Query Builder

The Query Builder allows you to build common queries to obtain data from the IATI Datastore in CSV, XML and JSON format.

Core Filters Additional Filters Output Format Results

Reporting Organisation

XM-DAC-41114: United Nations Development Programme (UNDP) ×

E.g. AT-12 = Ministry of Interior.

Type of Organisation Secondary Reporter?

All organisation types All options

Code List

Sector Category Sector

All categories 11120: Education Facilities And Training ×

DAC 3 digit DAC 5 digit

Recipient Country

BJ: Benin ×

IMPORTANT NOTES:

- When selecting multiple options within a single filter (e.g. 11110 and 11120 are both selected in the Sector filter), the function operates as an **AND/OR**. This means that any activities that report either Sector = 11110 **AND/OR** 11120 will be returned, the activity does not need to contain both.
- When using multiple filters to create your query (e.g. 11110 is selected in the Sector filter and Uganda is selected in the Recipient Country filter), the function operates as an **AND**. This means that only activities that report Sector = 11110 **AND** Recipient Country = Uganda will be returned.
- Some filters are only available for use with certain Row Formats. The ‘Available in Row Format’ column indicates which Row Format each filter will work for.
- Not all elements in the IATI Standard are currently available as filters on the Query Builder. If there is an element that you would like to filter by which is not available, please create an issue to request it on the [Datastore’s GitHub repository](#).

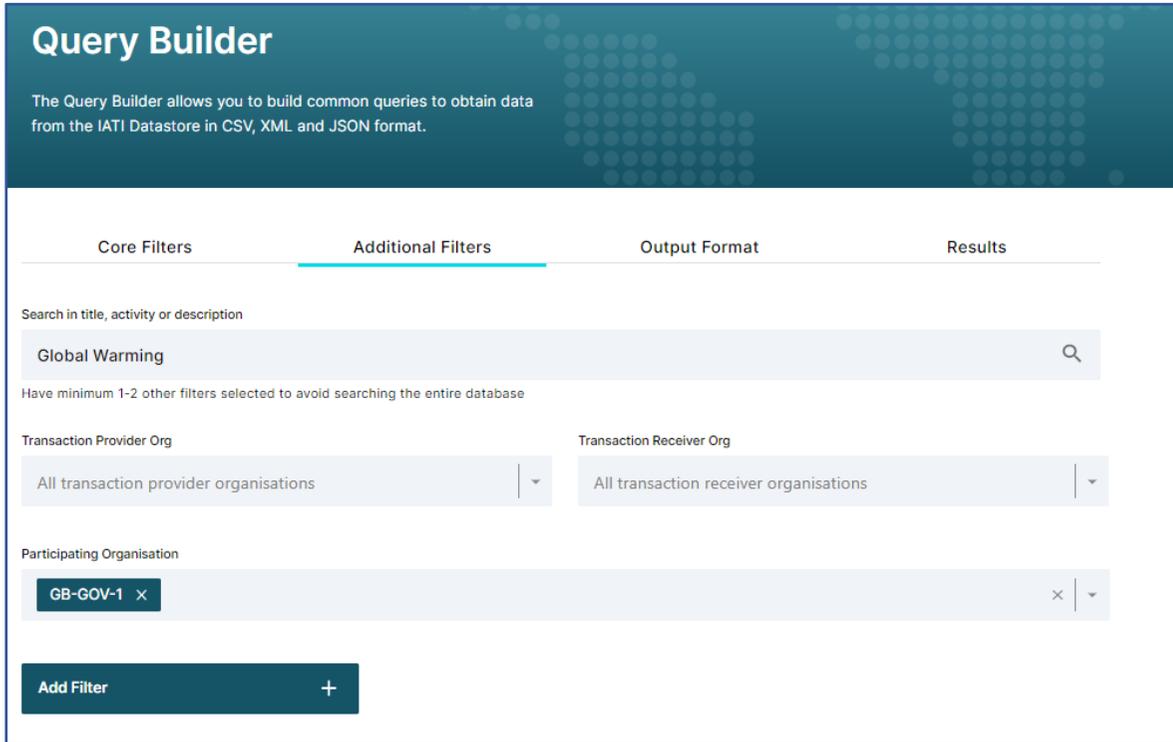
Filter	Function	Allows multiple values to be selected	Example Input	Available in Row Format			Additional notes
				Activity	Transaction	Budget	
<i>Title, activity or description</i>	Return data that includes the input text in the Title, Description, or Activity ID.	✓	Sanitation	✓	✓	✗	
Reporting Organisation	Return data that is published by selected Reporting Organisation(s).	✓	GB-CHC-1105851: Christian Aid	✓	✓	✓	
Type of Organisation	Return data that is published by selected Organisation Type(s).	✓	23: Regional NGO	✓	✓	✓	

Secondary Reporter	Return data that is published by a Secondary Reporter.	✗	1: Yes	✓	✓	✓	
Sector Category	Return data that includes selected 3 Digit DAC Sector Code(s).	✓	112: Basic Education	✓	✓	✗	These elements can be published either at activity OR transaction level. When using the Activity Row Format , activities that have these elements reported at transaction level will not be output, and vice versa.
Sector	Return data that includes selected 5 Digit DAC Sector Code(s).	✓	11130: Teacher Training	✓	✓	✗	
Recipient Country	Return data that includes your chosen Recipient Country(s).	✓	AF: Afghanistan	✓	✓	✓	
Recipient Region	Return data that includes your chosen Recipient Region(s).	✓	298: Africa, Regional	✓	✓	✗	To gain a full picture of activities and transactions in a particular Recipient Country, Recipient Region, or Sector, you should export data in both Activity Row Format and Transaction Row Format.
Activity/Budget start date (from)	Return data where the Activity Start Date / Budget Period Start Date is greater than or equal to the selected date.	✗	01/01/2019	✓	✗	✓	These filters will only work when Filter by Date = YES is also selected.
Activity/Budget start date (to)	Return data where the Activity Start Date / Budget Period Start Date is less than or	✗	01/01/2019	✓	✗	✓	The filter uses Activity Dates or Budget Dates depending on the selected Row Format.

	equal to the selected date.						For Activity Dates, where an <i>Actual</i> start/end date exists in the activity, this will be referenced by the query. Otherwise, the <i>Planned</i> start/end date will be referenced by the query.
Activity/Budget end date (from)	Return data where the Activity End Date / Budget Period End Date is greater than or equal to the selected date.	✘	01/01/2019	✔	✘	✔	
Activity/Budget end date (to)	Return data where the Activity End Date / Budget Period End Date is less than or equal to the selected date.	✘	01/01/2019	✔	✘	✔	

Step 2 Additional filters: select additional filters to apply to your search of IATI data

The Additional Filters tab contains more filters that you may wish to filter your returned data by.



The screenshot shows the 'Query Builder' interface. At the top, there is a header with the title 'Query Builder' and a sub-header: 'The Query Builder allows you to build common queries to obtain data from the IATI Datastore in CSV, XML and JSON format.' Below the header, there are four tabs: 'Core Filters', 'Additional Filters' (which is selected and highlighted with a blue underline), 'Output Format', and 'Results'. Under the 'Additional Filters' tab, there is a search bar with the text 'Global Warming' and a magnifying glass icon. Below the search bar, there is a note: 'Have minimum 1-2 other filters selected to avoid searching the entire database'. There are two dropdown menus: 'Transaction Provider Org' with the value 'All transaction provider organisations' and 'Transaction Receiver Org' with the value 'All transaction receiver organisations'. Below these, there is a 'Participating Organisation' section with a tag 'GB-GOV-1' and a close button 'x'. At the bottom left, there is a dark blue button labeled 'Add Filter' with a plus sign icon.

Tab 2: Additional Filters

The Additional Filters tab contains more filters that you may wish to filter your returned data by. The available additional filters are as follows:

Filter	Function	Allows multiple values to be selected	Example Input	Available in Row Format :			Additional Notes
				Activity	Transaction	Budget	
Transaction Provider Org	Return data that includes the selected Transaction Provider Org(s).	✓	GB-GOV-1	✓	✓	✗	<p>The available values include organisations that have been reported in either the Ref or Narrative attribute in the provider-org element.</p> <p>When using the Transaction Row Format, transactions with the selected Provider Org(s) will be output.</p> <p>When using the Activity Row Format, activities that contain at least one transaction with the selected Provider Org(s) will be output.</p>
Transaction Receiver Org	Return data that includes the selected Transaction Receiver Org(s).	✓	XM-DAC-41114	✓	✓	✗	<p>The available values include organisations that have been reported in either the Ref or Narrative attribute in the receiver-org element.</p> <p>When using the Transaction Row Format, transactions with the selected Receiver Org(s) will be output.</p>

							When using the Activity r Row Format, activities that contain at least one transaction with the selected Receiver Org(s) will be output.
Participating Organisation	Return data that includes the selected Participating Organisation(s).	✓	US-GOV-11	✓	✗	✗	
<i>The 'Add Filter' dropdown then allows you to add many more filters to your query, as required. The available filters in the dropdown list are as follows:</i>							
<i>Activity filters</i>							
Activity Scope	Return data with selected Activity Scope(s).	✓	1: Global	✓	✗	✗	
Activity Status	Return data with selected Activity Status(s).	✓	2: Implementation	✓	✗	✗	
Collaboration Type	Return data that includes selected Collaboration Type(s).	✓	1: Bilateral	✓	✗	✗	
Default Aid Type	Return data with the selected Default Aid Type(s).	✓	1: Unearmarked	✓	✗	✗	
Default Aid Type (Category)	Return data with the selected Aid Type Category(s).	✓	A: Budget Support	✓	✗	✗	
Default Aid Type Vocabulary	Return data with the selected Aid Type Vocabulary(s).	✓	1: OECD DAC	✓	✗	✗	

Default Currency	Return data with selected Default Currency(s).	✓	GBP: Pound Sterling	✓	✗	✗	
Default Finance Type	Return data with selected Default Finance Type(s).	✓	110: Standard Grant	✓	✗	✗	
Default Flow Type	Return data with selected Default Flow Type(s).	✓	35: Private Market	✓	✗	✗	
Default Language	Return data with selected Default Language(s)	✓	ja: Japanese	✓	✗	✗	
Default Tied Status	Return data with selected Default Tied Status(es)	✓	3: Tied	✓	✗	✗	
Document Link Category	Return data that includes selected Document Link Category(s).	✓	A05: Budget	✓	✗	✗	
Hierarchy	Return data that is reported at selected hierarchy level(s).	✓	1: Activity	✓	✗	✗	
Humanitarian	Return data that is flagged as being humanitarian.	✗	1: True	✓	✗	✗	
Humanitarian Scope	Return data with selected Humanitarian Scope Type(s)	✓	1: Emergency	✓	✗	✗	
Humanitarian Scope Vocabulary	Return data with selected Humanitarian Scope Type Vocabulary(ies)	✓	1-2: Glide	✓	✗	✗	

IATI Version	Return data that is published at the selected version(s) of the IATI Standard.	✓	2.01	✓	✗	✗	Please note that only versions 2.01, 2.02 and 2.03 are available because the IATI Datastore does not consume data that is published at version 1 of the Standard.
Other Identifier Type	Return data with selected Other Identifier Type(s)	✓	B1: Previous Reporting Organisation Identifier	✓	✗	✗	
Policy Marker	Return data that includes selected Policy Marker(s).	✓	12: Nutrition	✓	✗	✗	
Tag	Return data that includes selected Tag code(s).	✓	1: SDG Goal 1	✓	✗	✗	
Transaction filters							
Transaction Flow Type	Return data that includes the selected Transaction Flow Type(s).	✓	35: Private Market	✓	✓	✗	When using the Transaction Row Format, transactions with the selected Flow Type will be output. When using the Activity Row Format, activities that contain at least one transaction with the selected Flow Type will be output.
Transaction Humanitarian	Return data where a transaction is flagged as being humanitarian.	✗	1: True	✓	✓	✗	When using the Transaction Row Format, transactions that are

							<p>flagged as being Humanitarian will be output.</p> <p>When using the Activity Row Format, activities that contain at least one transaction that is flagged as Humanitarian will be output.</p>
Transaction Tied Status	Return data that includes the selected Transaction Tied Status(s).	✓	3: Partially Tied	✓	✓	✗	<p>When using the Transaction Row Format, transactions with the selected Tied Status will be output.</p> <p>When using the Activity Row Format, activities that contain at least one transaction with the selected Tied Status will be output.</p>
Transaction Type	Return data that includes the selected Transaction Type(s).	✓	1: Incoming Funds	✓	✓	✗	<p>When using the Transaction Row Format, transactions with the selected Transaction Type will be output.</p> <p>When using the Activity Row Format, activities that contain at least one transaction with the</p>

							selected Transaction Type will be output.
Transaction Value Currency	Return data that includes the selected Transaction Currency(s).	✓	EUR: Euro	✓	✓	✗	<p>When using the Transaction Row Format, transactions with the selected currency will be output.</p> <p>When using the Activity Row Format, activities that contain at least one transaction with the selected Currency will be output.</p>

The [Core Filters](#) and [Additional Filters](#) tabs determine how your data is *filtered*. Now that has been done, the Output Format tab is used to determine how the returned data is *structured*.

Step 3 Output format: choose the structure that you want your search results to be presented in

There are three functions that you can use to structure your returned data in the way that most suits your needs:

- Choose your output format (Activity, Transaction or Budget).

IMPORTANT NOTE: If Activity output format is chosen, you can choose to repeat each activity for each separate sector (Multi-Sector Expansion) or recipient country (Multi-Country Expansion) that is reported. Note, this duplicates each activity for the separate sectors or countries in your output. No percentage allocation is applied to any financial data.

Tab 3: Output Format

1 Core Filters ——— 2 Additional Filters ——— 3 Output Format ——— 4 Results

Row format: 1

Each Unique Activity Each Financial Transaction Each Budget In Defined Periods

Repeat rows 1

No Multi-Sector Expansion Multi-Country Expansion

Column elements to include: activities

IATI Identifier × Reporting Organization × Title × Transactions × × | v

See IATI documentation for full list of possible elements

Column elements to include: transactions

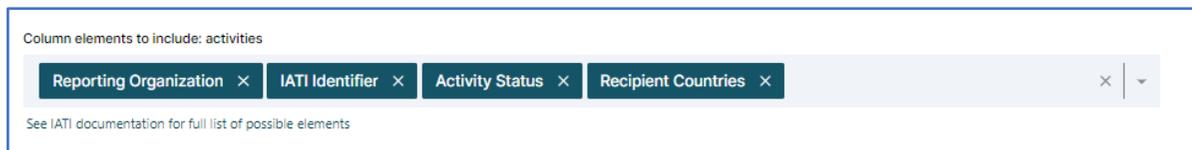
IATI Identifier × Reporting Organization × Title × Transactions × × | v

See IATI documentation for full list of possible elements

Columns to include

Often, you will not want to return all of the available fields for the data that you are returning - there are over 220 columns when all activity data is returned in CSV. It can therefore be helpful to return only the fields that you are interested in analysing. To do this, simply select the fields that you would like from the dropdown menus.

In the following example, only the *Reporting Organisation*, *IATI Identifier*, *Activity Status* and *Recipient Countries* fields will be returned in the data that is returned:

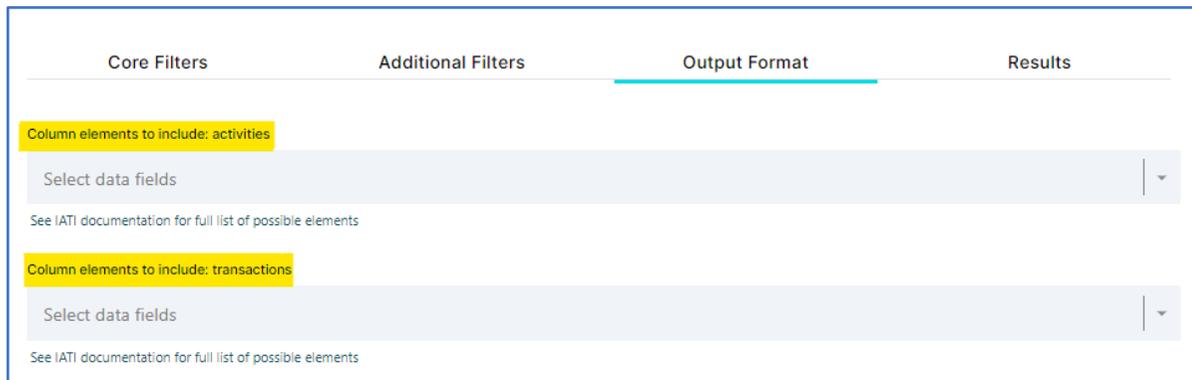


Column elements to include: activities

Reporting Organization × IATI Identifier × Activity Status × Recipient Countries ×

See IATI documentation for full list of possible elements

You will notice that there are two such dropdown menus: one for where you would like to return your data with one activity per line, and one for where you would like to return data with one transaction per line (see *Row Format* section for details on this distinction), as shown below:



Core Filters Additional Filters **Output Format** Results

Column elements to include: activities

Select data fields

See IATI documentation for full list of possible elements

Column elements to include: transactions

Select data fields

See IATI documentation for full list of possible elements

IMPORTANT NOTES:

- When using the 'Each budget in defined period' Row Format, you are **not** able to customise the fields that are returned in your data.

- If you *do* want to return all available columns, then simply leave the ‘*column elements to include*’ fields blank.

Row format

The Query Builder allows you to output CSV data with any of the following three Row Format configurations:

- *Each unique activity*
- *Each financial transaction*
- *Each budget in defined periods*

Which Row Format you select depends on what sort of data analysis that you want to undertake. Let’s look at how queries that use the same filters can be output differently depending on which of these you choose:

- *Each Unique Activity*

Each activity is returned in a single row of data. Where there are multiple transactions and budgets within an activity, they are contained within a single cell, and separated by commas as illustrated below:

A	B	C
iatid_identifier	transaction_value	budget_value
NG-CAC-83813-RMRS	35000.0,4.0E7,125000.0,1011150.0,48000.0,5000.0,20000.0,90000.0,15000.0	7.040754E7,9.883083335E7,1.0815416667E8

This Row Format is the most useful when you are analysing data at an activity level. For example, if you wanted to find projects in Rwanda that have an activity start date of 01/01/2019 or later you would use the Activity Row Format and select the following filters:

- Recipient Country = Rwanda
- Filter by Date = Yes
- Activity/Budget Start Date (from) = 01/01/2019

This search will give you all activities for which Rwanda is a Recipient Country with an Activity Start Date on or after 1/1/2019 and for which Recipient Country is included at the activity level. The results will include activities that are implemented in multiple countries, as long as Rwanda is included as one of those countries. It will not include activities for which the Recipient Country is included at the transaction level.

As such, to get a full list of activities that include Rwanda as a Recipient Country, it is necessary to do this query using the Each Unique Activity and Each Financial Transaction output format.

- *Each Financial Transaction*

Each transaction that is included in the queried activities is returned in a single row of data. Activity-level elements (for example the IATI Identifier) are repeated across multiple rows, where an activity contains multiple transactions:

	A	B	C
1	iati_identifier	transaction_value	
2	NG-CAC-83813-RMRS	4029.5	
3	NG-CAC-83813-RMRS	1615000	
4	NG-CAC-83813-RMRS	1926.75	
5	NG-CAC-83813-RMRS	270368.64	
6	NG-CAC-83813-RMRS	2565000	
7	NG-CAC-83813-RMRS	1521125	
8	NG-CAC-83813-RMRS	220979.16	
9	NG-CAC-83813-RMRS	2660000	
10	NG-CAC-83813-RMRS	100000	
11	NG-CAC-83813-RMRS	100000	
12	NG-CAC-83813-RMRS	3719955.21	
13	NG-CAC-83813-RMRS	2760000	
14	NG-CAC-83813-RMRS	65000	
15	NG-CAC-83813-RMRS	162000	
16	NG-CAC-83813-RMRS	162000	
17	NG-CAC-83813-RMRS	40000	
18	NG-CAC-83813-RMRS	100000	
19	NG-CAC-83813-RMRS	100000	
20	NG-CAC-83813-RMRS	100000	
21	NG-CAC-83813-RMRS	80000	

This Row Format is most useful when you are analysing the financial transactions that have taken place as part of one or more activities. For example, if you wanted to find out the total value of disbursements that have been provided by a particular organisation. If you wanted to find

the amount of money that has been disbursed by USAID on projects that are flagged as being humanitarian, you would use the Transaction Row Format and select the following filters:

- Reporting Organisation = USAID
- Humanitarian = True
- Transaction Type = Disbursement

This search will give you all transactions that are disbursements reported by USAID that are flagged as humanitarian. To determine the aggregate disbursements, you could then sum the Transaction Value field in the CSV export.

- *Each Budget in Defined Period*

Each budget period that is reported within an activity is returned in a single row of data. Again, activity-level elements are repeated across each row:

	A	B	C	D	E
1	reporting_org_ref	iati_identifier	budget_period_start_iso_date	budget_period_end_iso_date	budget_value
2	NG-CAC-83813	NG-CAC-83813-RMRS	01/08/2019	30/07/2020	98830833.35
3	NG-CAC-83813	NG-CAC-83813-RMRS	01/08/2018	30/07/2019	108154166.67
4	NG-CAC-83813	NG-CAC-83813-RMRS	02/01/2017	31/12/2017	70407540.00
5					

This Row Format is most useful when you are analysing the budgets that have been assigned to one or more activities.. For example, if you wanted to find all budgets with a Recipient Country of Nigeria reported by the African Development Bank, you would use the Budget Row Format and select the following filters:

- Reporting Organisation = African Development Bank
- Recipient Country = Nigeria

This search would give you all budgets reported by AfDB with a Recipient Country of Nigeria. As budget periods do not cover standard periods, it is recommended to export all budget periods and then filter the data by date in the CSV file. This will ensure that you do not miss budget periods that start outside the period of your analysis but end within the period of your analysis. For example, if analyzing budgets for January-December 2021, a budget period of 01/11/2020-31/03/2021 would be missed if you enter a Budget Start date (from) of 01/01/2021.

IMPORTANT NOTES:

- Some elements (such as Recipient Country, Recipient Region, Sector) can be reported at either activity, or transaction level. When using the *Each Unique Activity* output format, these parameters will only return activities where those elements have been reported at activity level.
 - Similarly, when using the *each unique transaction* output format, these parameters will only reference transactions where those elements have been set at transaction level.
 - Therefore, where a publisher designates recipient-country only at the transaction level, a query that filters by that publisher, and a particular recipient-country, using the *Each Unique Activity* output will return 0 results.
 - Likewise, where a publisher designates recipient-country only at the activity level, a query that filters by that publisher, and a particular recipient-country, using the *Each Unique Transaction* output will return 0 results.
 - So, if an organisation has published country/region or sector data at transaction level and you are using the corresponding filter, you will need to use the *Each Financial Transaction* format to return their data.
 - If an organisation has published country/region or sector data at activity level and you are using the corresponding filter, you will need to use the *Each Unique Activity* format to return their data.
- Often, it will be useful to download results in **multiple Row Formats**, and then combine the data as required, to gain a full picture of the underlying data.
 - For example, you may want to do some analysis on the activities that are being undertaken that relate to a particular Sector. Sector is one of the IATI elements that can be reported either at Activity level **or** Transaction level. So, to return all the *activities* where your chosen Sector is included, you would use the Activity Row Format and select the filter Sector = 11130: Teacher Training (for example).
 - However, this would **not** return data where this Sector has been published at Transaction level, within an activity. So, to return all of the *transactions* where your chosen Sector is designated, you would also use the Transaction Row Format (and use the same filter). These datasets could then be combined or cross-referenced to complete the analysis that you want to do.

- Which option you select for *Row Format* also affects the functionality of the 'Filter by Date' option on the Core Filters tab. When '*Each Unique Activity*' is selected, the date parameters will filter by [Activity Dates](#); when '*Each Budget in Defined Periods*' is selected, the date parameters will filter by [Budget Period Start](#) and [Budget Period End](#).

Step 4 Results: Download your data in CSV, JSON or XML

Now that you have chosen how you want to filter your data (Tabs 1 & 2) and chosen how you want to structure your data (Tab 3), you are ready to return the data itself.

Tab 4: Results

Query Builder

The Query Builder allows you to build common queries to obtain data from the IATI Datastore in CSV, XML and JSON format.

Core Filters	Additional Filters	Output Format	Results
Files			
https://test-datastore.iatistandard.org/search/activity/select?q=reporting_org_ref:(XM		Copy	Download CSV 
https://test-datastore.iatistandard.org/search/activity/select?q=reporting_org_ref:(XM		Copy	Download JSON 
https://test-datastore.iatistandard.org/search/activity/select?q=reporting_org_ref:(XM		Copy	Download XML 

The Query Builder automatically takes the filters that you have set and transforms these into a URL, which executes the query against the Datastore API.

You simply need to select the *'Download CSV'*, *'Download JSON'* or *'Download XML'* buttons to return the data in your required format.

Alternatively, you can use the *'Copy'* buttons to retrieve the results from your browser. This can be particularly useful when monitoring the same query over a period of time, as it allows you to save the query URL and re-run the results without having to input your filters each time.

How can I access further support?

If you require any support with using the Query Builder, please get in touch with the IATI Technical Team: support@iatistandard.org. You can also:

- Discover more about IATI on our main website: iatistandard.org.
- Speak to other data publishers, users and experts on IATI's online forum, [Discuss](#).
- Keep updated with IATI news by signing up to our monthly [newsletter](#).
- Contact organisations directly if you have a problem with the quality of the data they have published.