BONN
CLIMATE CHANGE
CONFERENCE
JUNE 2023

SBSTA mandated event:

Progress in the development of the reporting tools for the electronic reporting of common reporting tables and common tabular formats under the ETF

Vlad Trusca, Manager, Transparency Division

6 June 2023, Bonn

#Together4Transparency

United Nations
Climate Change

Mandates

United Nations
Climate Change Secretariat

Requested SBSTA to develop, pursuant to the MPGs:

- **common reporting tables (CRT)** for the electronic reporting of info on **GHG emissions**
- **common tabular formats (CTFs)** for the electronic reporting of info on **tracking progress in achieving NDCs** and of info on **financial, technology development/transfer and capacity-building (FTC) support**

Decision 18/CMA.1

Adopted:

- **CRT** for the electronic reporting of the info in the national inventory reports of **GHG emissions**
- **CTF** for the electronic reporting of the info on **tracking progress in achieving NDCs**
- **CTF** for the electronic reporting of the info on **FTC support**

Decision 5/CMA.3

Requested the secretariat to:

- Develop the **reporting tools**, taking into account the **flexibility** provisions
- Make available a **test version by June 2023** and a **final version of the tools by June 2024** (*timely availability of sufficient financial resources*)
- **Inform Parties** on the progress at SBSTA sessions
- Organize **regular technical training workshops**
- **Prepare a report** on how the inputs of Parties on the test version have been considered
- Facilitate **interoperability** with the **IPCC inventory software** and invite IPCC to engage in the work incl. by completing a **mapping exercise** between 2006 IPCC GLs and CRT
- Establish an **interactive web portal by Dec. 2025** to facilitate the availability of FTC support info

Decision 5/CMA.3

Implementation approach – IT project

United Nations
Climate Change Secretariat

Assumptions

United Nations
Climate Change Secretariat

- Parties **submit the mandatory information and data in the formats agreed** - comprehensive analysis, comparison, and assessment of progress - **feed info into the GST and NDC cycles**
- Complex IT project covering the development of **3 new reporting tools built** using a common framework:
  - **ETF GHG Inventory Reporting Tool** = CRT (Common Reporting Tables for GHG emissions)
  - **ETF Progress Reporting Tool** = CTF NDC (Common Tabular Format for tracking progress in achieving NDC)
  - **ETF Support Reporting Tool** = CTF FTC (Common Tabular Format on finance, tech. and CB support)
- UNFCCC institutional **knowledge and experience** (CRF Reporter, BR CTF, etc.) & **Parties/experts views**
- New tools require **additional skills, expertise and coordination**, apart from solving countless technical aspects
- **Complexity**:
  - All Parties, incl. ~150 developing countries; 3,000+ users
  - Online/offline; flexibility provisions
  - Interoperability with IPCC software
  - **Timing & Funding**

Technology

United Nations
Climate Change Secretariat

ETF reporting tools - meeting all requirements from Parties - advanced functionalities & a compliance platform working in both developed and developing countries **by building on:**

- **Totally new technical framework** designed for reliability, security, and durability
- **Open standards and open-source technologies** viable on long-term like HTML, JavaScript and .NET.
- **Native Azure cloud platform** providing enterprise grade information security, scalability, and resiliency
- Intuitive, accessible, discoverable **User Interface design** using UN Disability Inclusion Strategy
- Progressive web apps (PWAs) **working in offline mode** (operate in absence of an internet connection) and automatically synchronise data when connection is restored
- Real-time collaborative editing - **multiple users within a Party can work concurrently** on the same submission and see live changes to the data

Complexity

United Nations
Climate Change Secretariat

Elevated level of complexity - dependencies among the modular building blocks

IT architecture - **interconnected and inter-dependent technical engines**:

- **Rendering engine:** render and input data, providing an accessible, user friendly, streamlined interface
- **Validation engine:** validation services (defined by metadata) in browser and server-side
- **Calculation engine:** data calculation services (defined by metadata) in browser and server-side
- **Metadata engine:** dynamically structure and validate data following a metadata schema (CMA decisions)
- **Import/export engine:** import/export data drafts across client and server, including a compatibility layer with the IPCC Inventory software
- **Reporting engine:** generate the agreed reporting tables in Excel based on the data entered
- **Storage engine:** offline structured storage for applications using browser Web Storage facilities

User management and authentication **reuse standard UNFCCC services**

Interoperability with IPCC software

United Nations
Climate Change Secretariat

- Mandate (decision 5/CMA.3) – UNFCCC cooperates with IPCC **to facilitate interoperability between the ETF reporting tools and the IPCC inventory software**
  - Some Parties **use IPCC Inventory Software to estimate GHG emissions** following 2006 IPCC Guidelines
  - Produce a **file that could be read and imported** by the ETF GHG Inventory Reporting Tool
- **Current work:**
  - Continuing the development of the **IPCC Inventory Software** and **ETF GHG Inventory Reporting Tool**
  - **Cell-by-cell mapping** between IPCC Inventory Software and ETF GHG Inventory Reporting Tool
  - **Generate JSON file in the IPCC Inventory Software** for importing it to ETF GHG Inventory Reporting Tool
- **Multiple releases of IPCC Inventory Software are expected before COP28, and to June 2024**

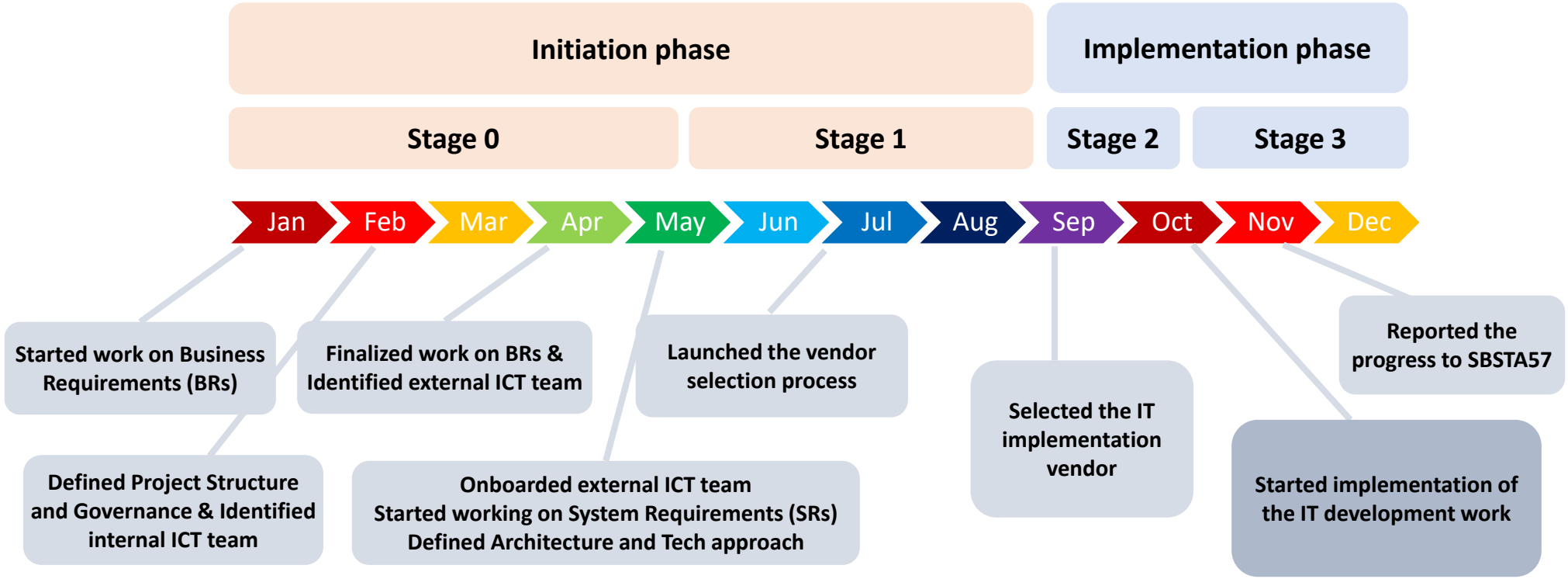
Progress and Timeline

United Nations
Climate Change Secretariat

Timeline

United Nations
Climate Change Secretariat

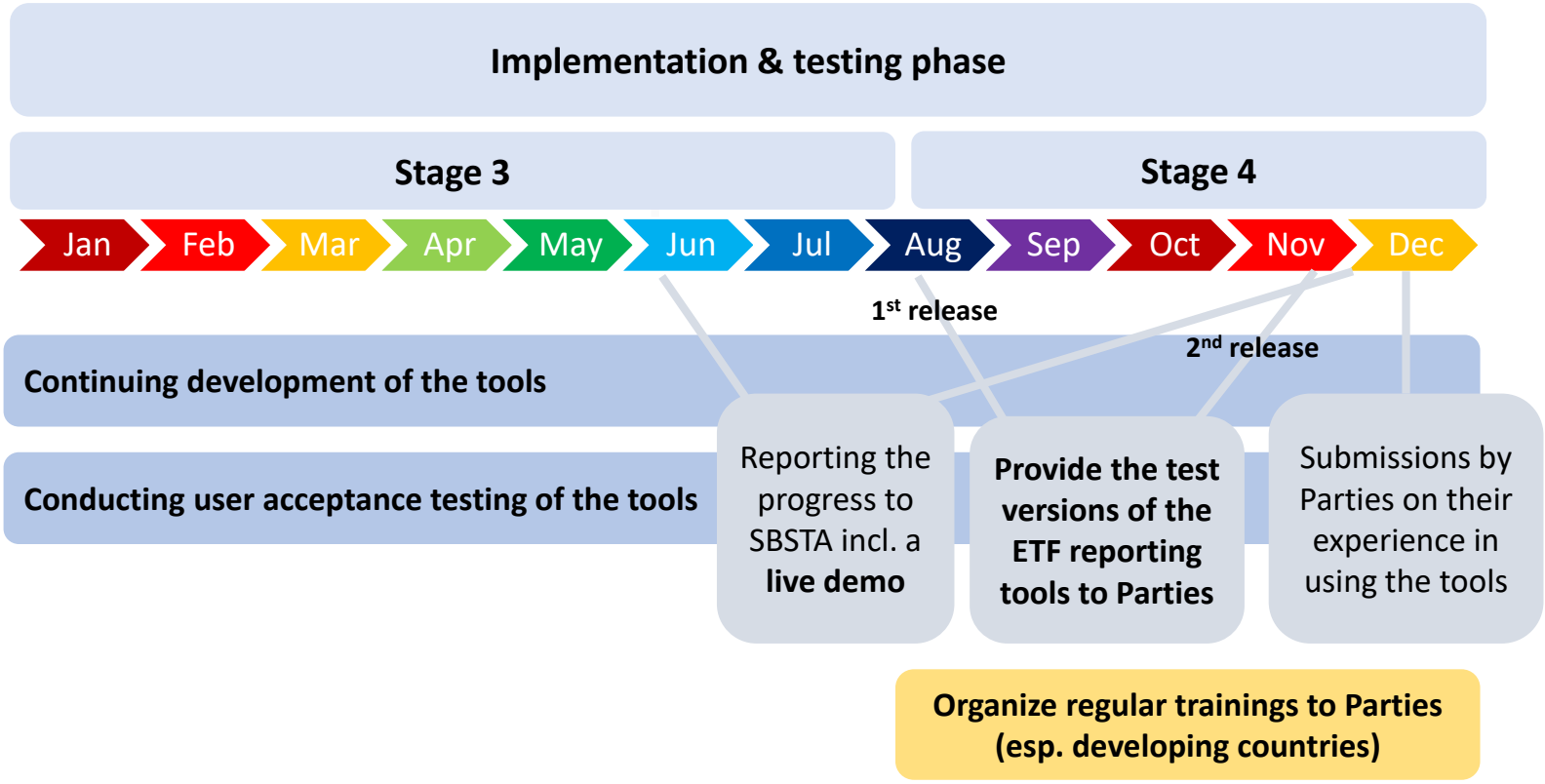
2022



Timeline

United Nations
Climate Change Secretariat

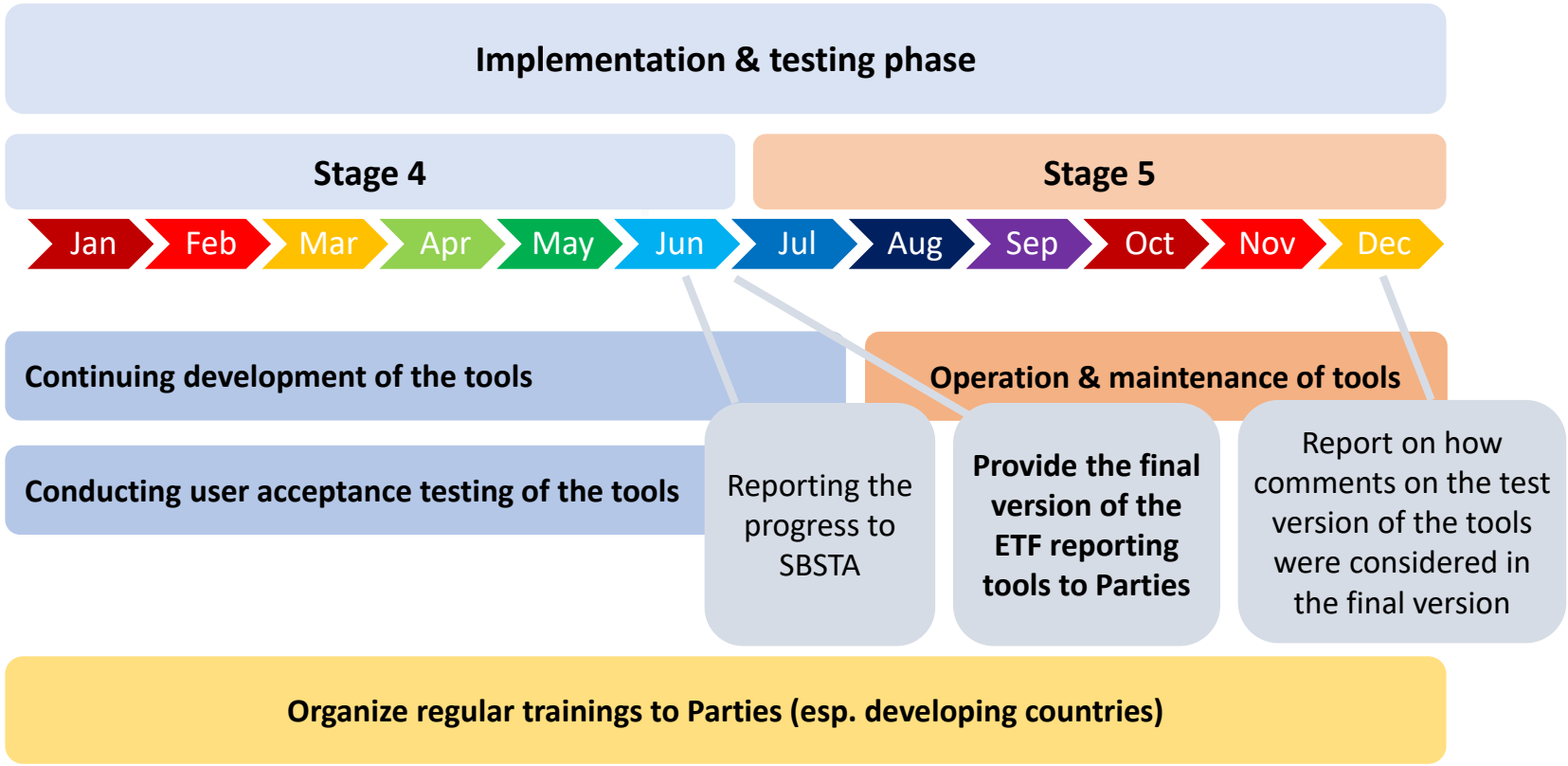
2023



Timeline

United Nations
Climate Change Secretariat

2024

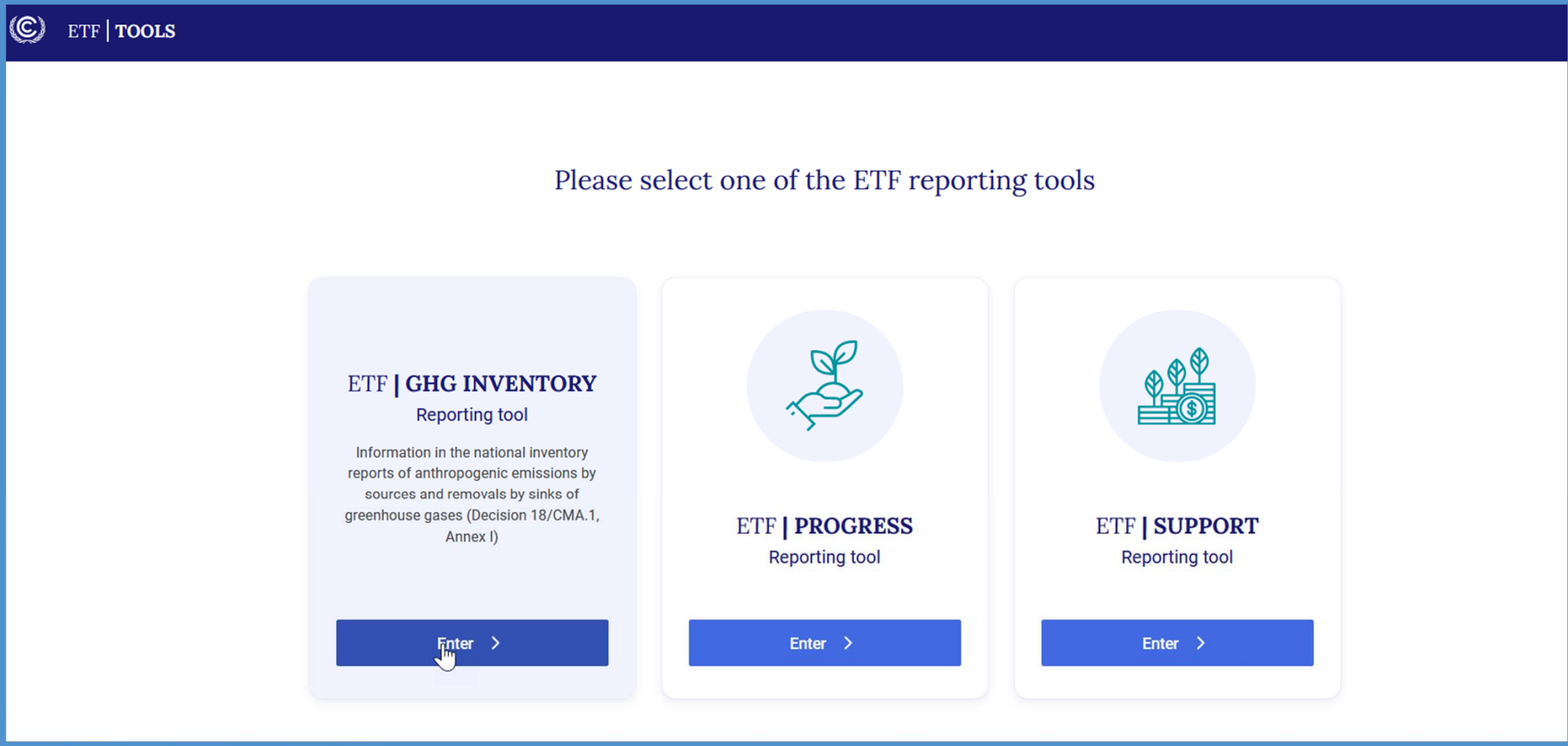


ETF Tools – preview

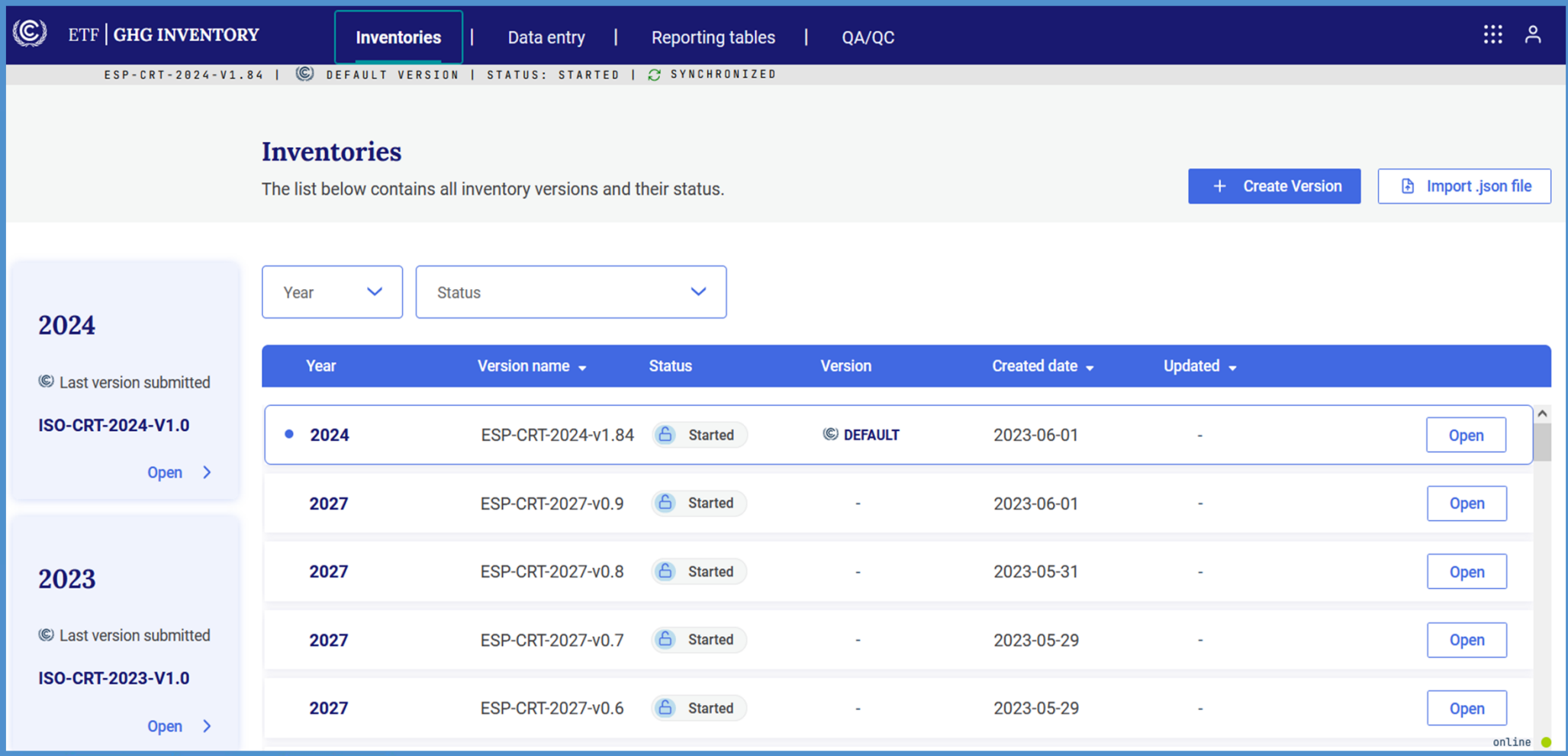
Live demo event
14 June, 1-2 pm.
Room Nairobi

United Nations
Climate Change Secretariat

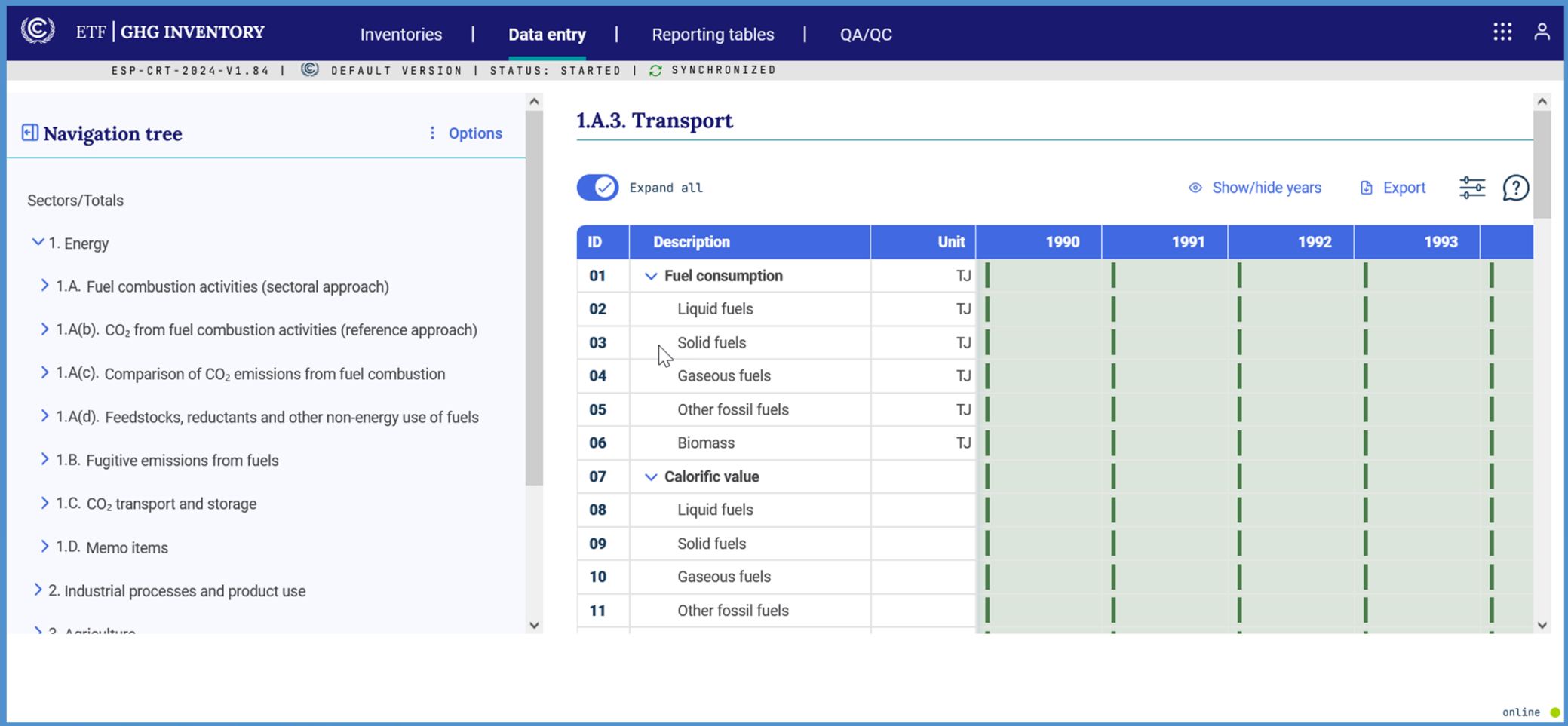
User Interface - ETF reporting tools



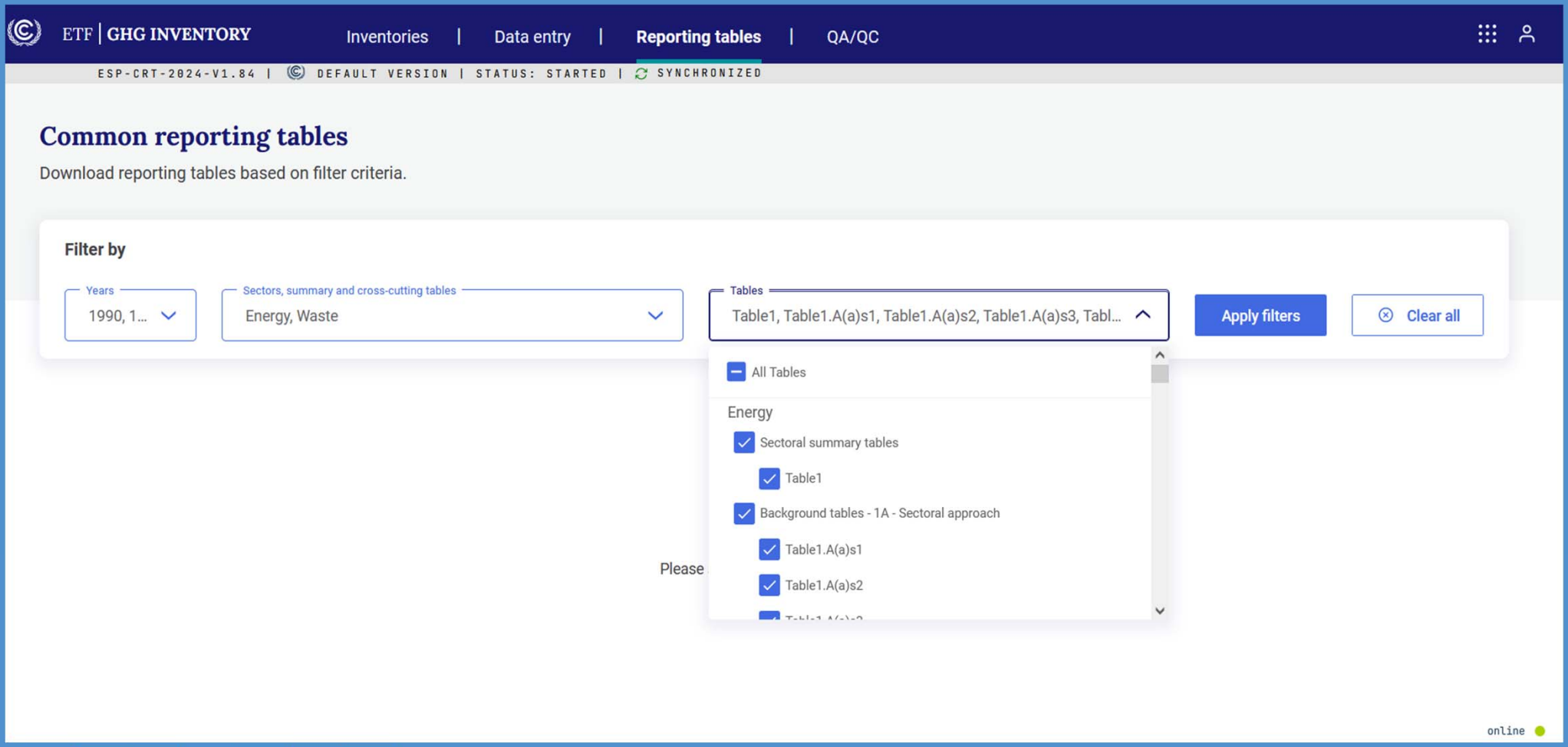
User Interface – GHG Inventory



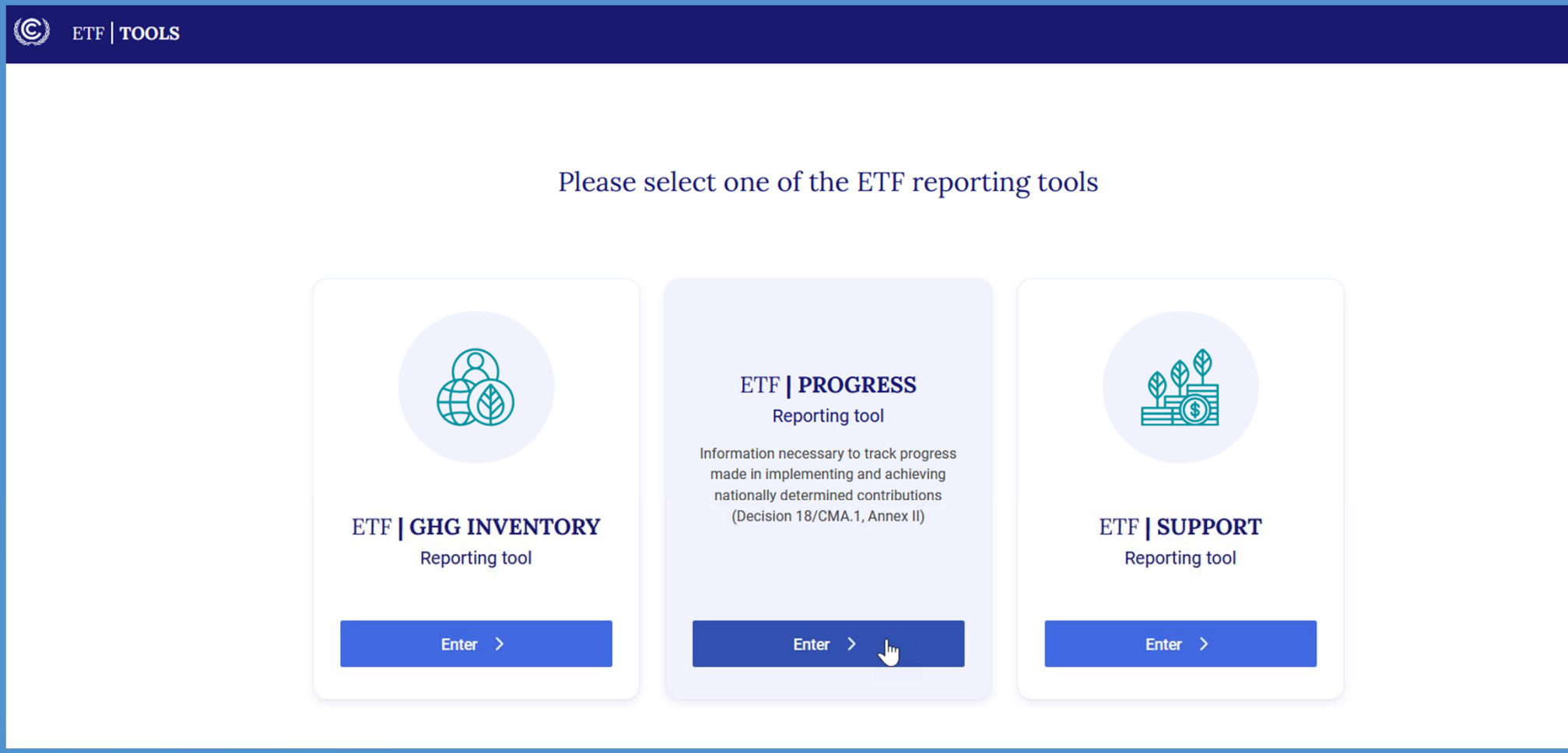
User Interface – GHG Inventory



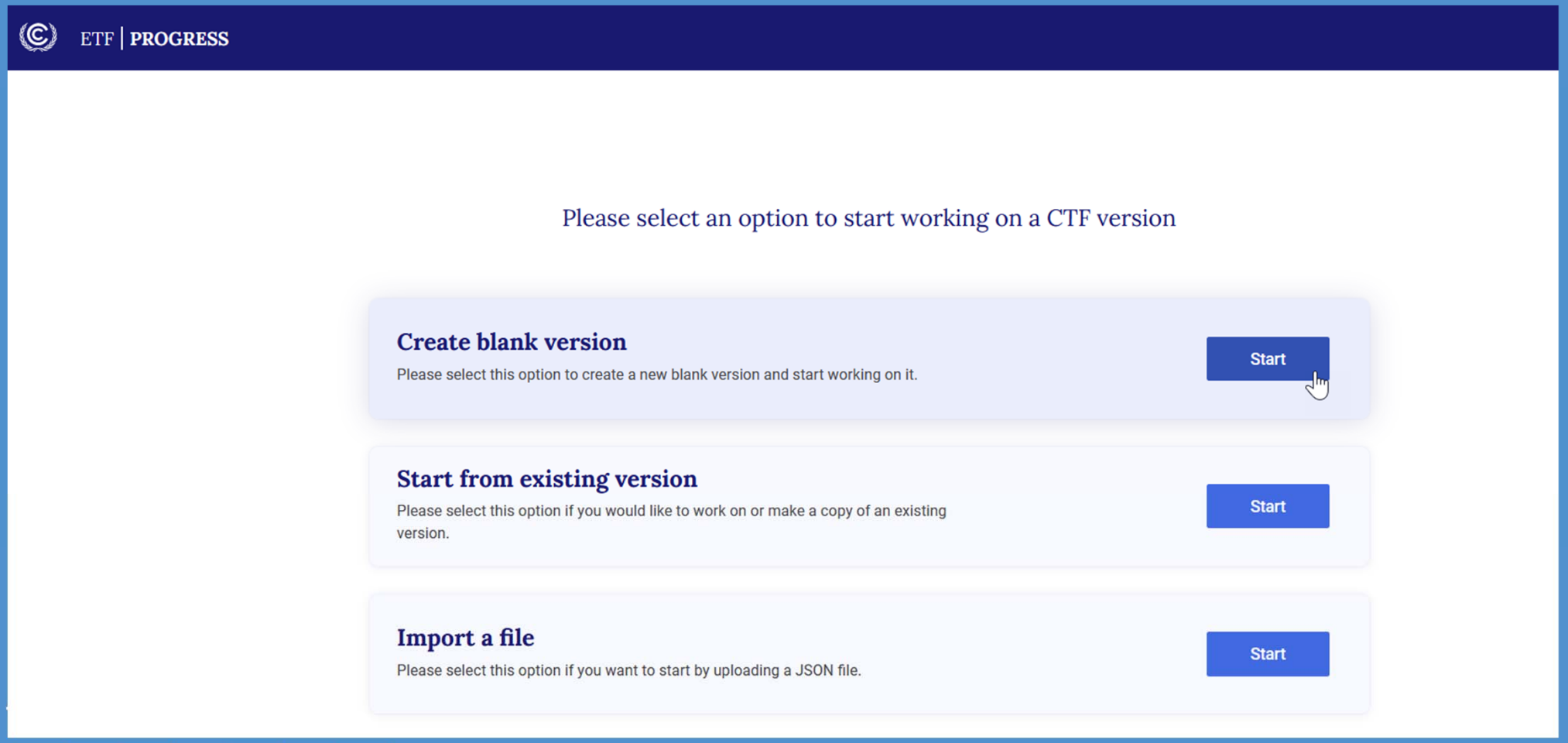
User Interface – GHG Inventory



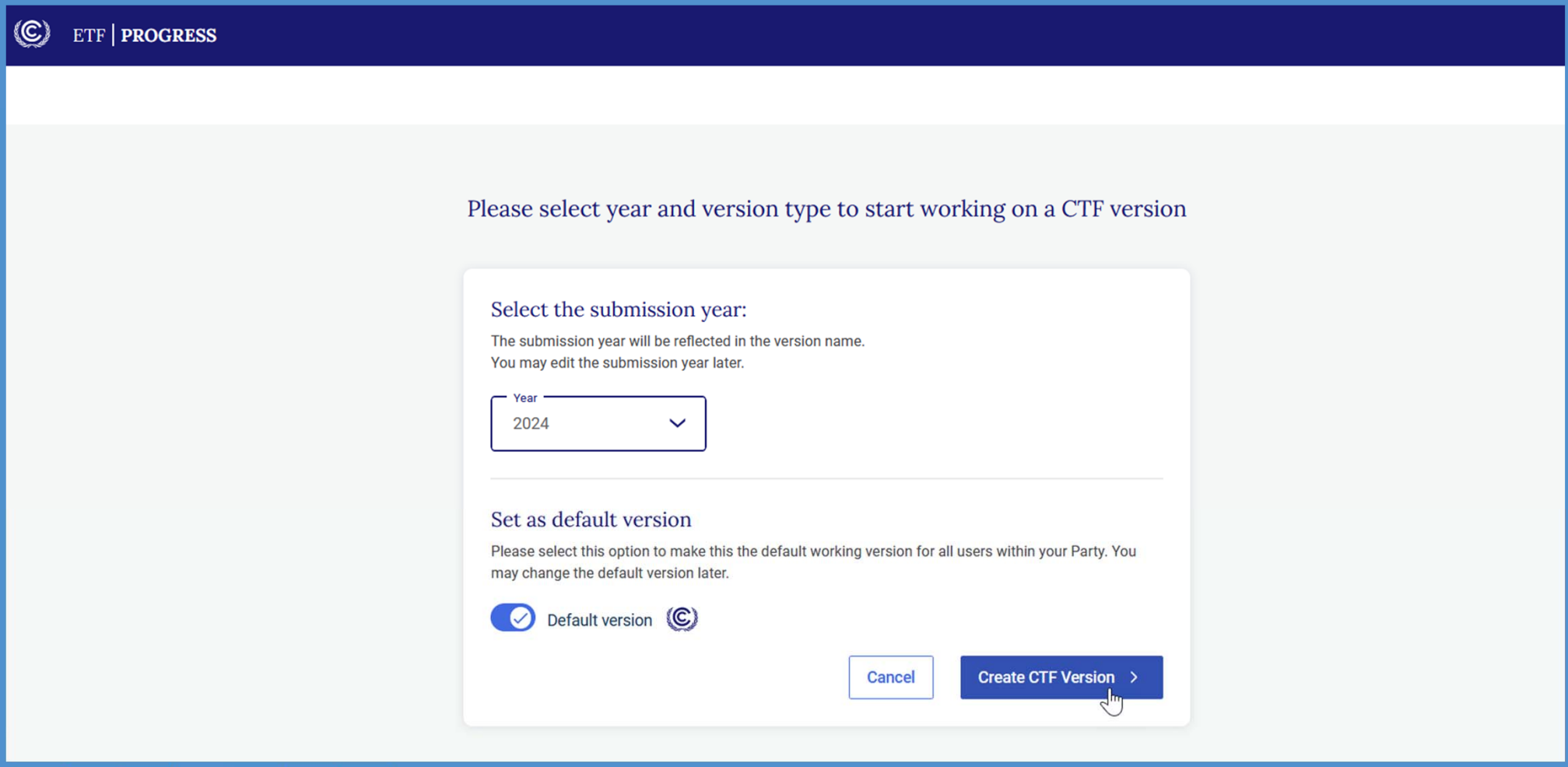
User Interface - ETF reporting tools



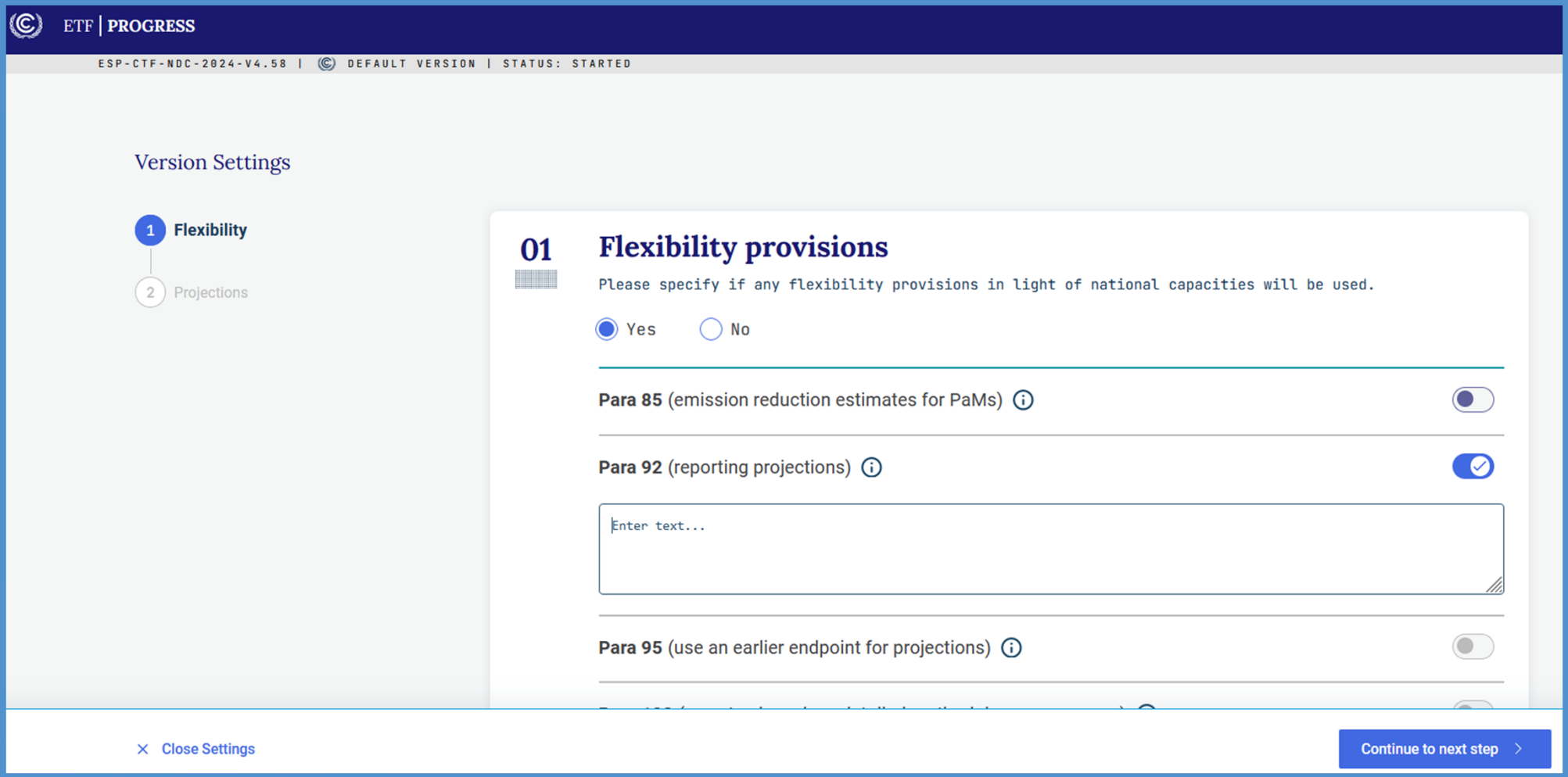
User Interface - Progress



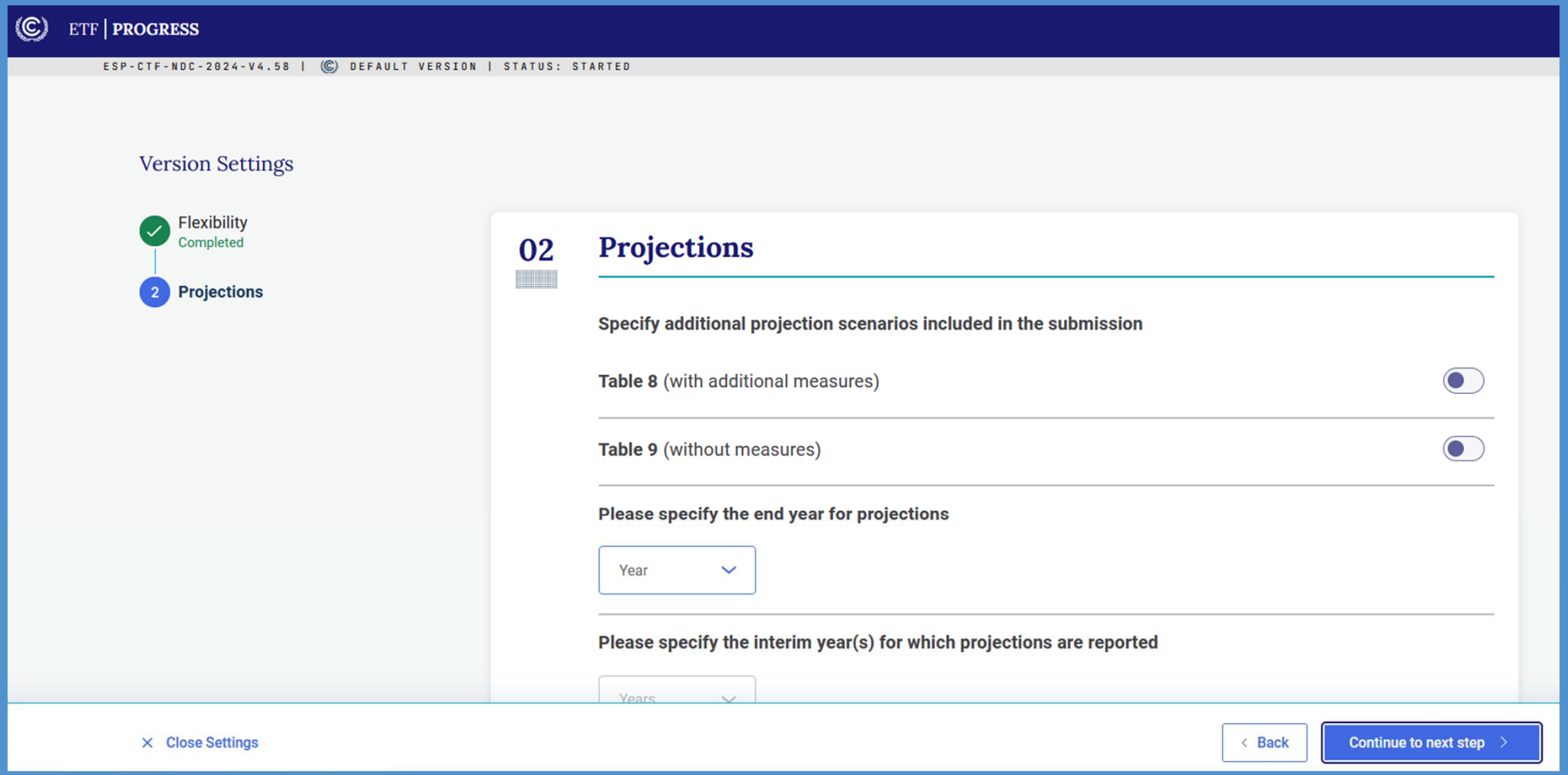
User Interface - Progress



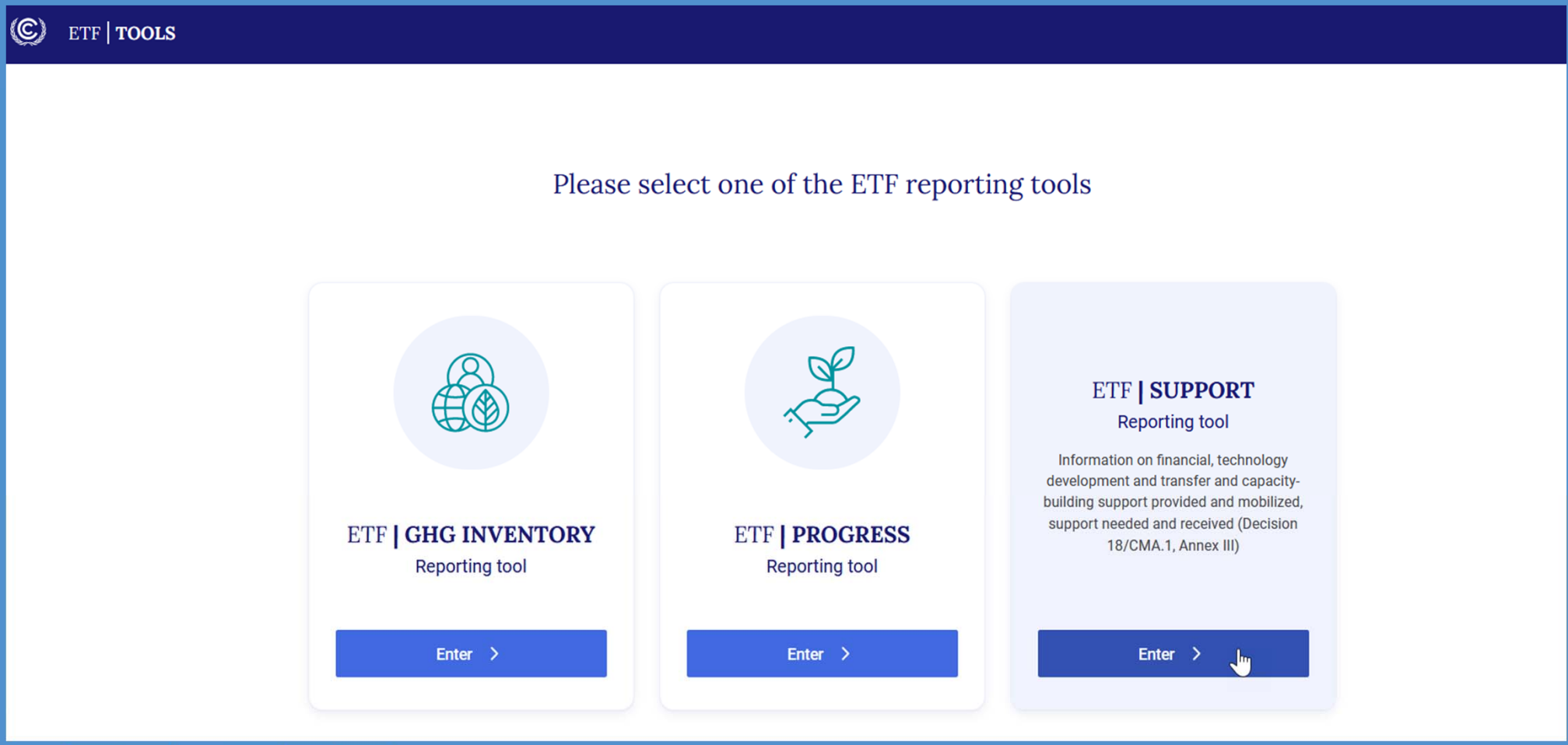
User Interface - Progress



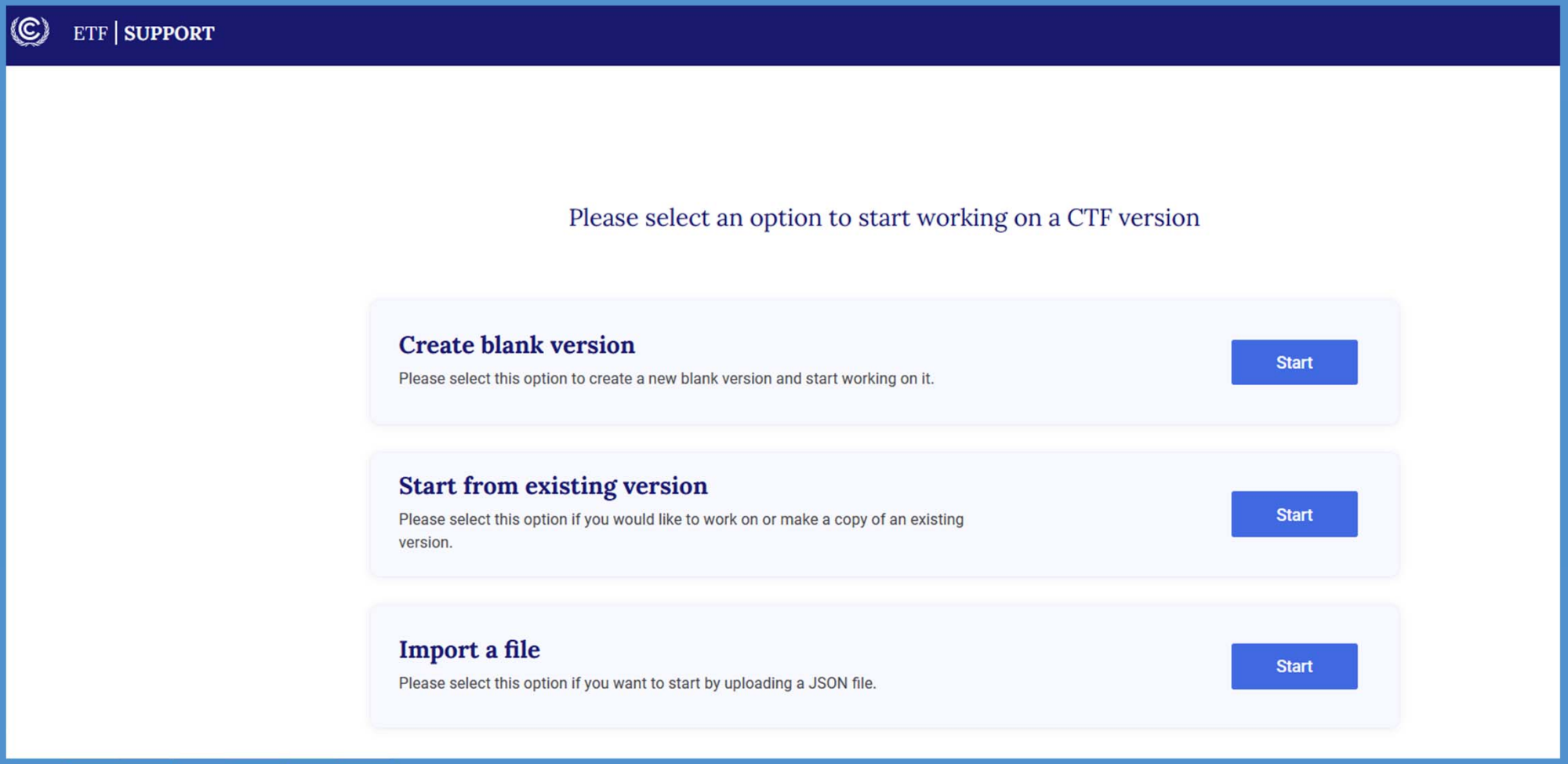
User Interface - Progress



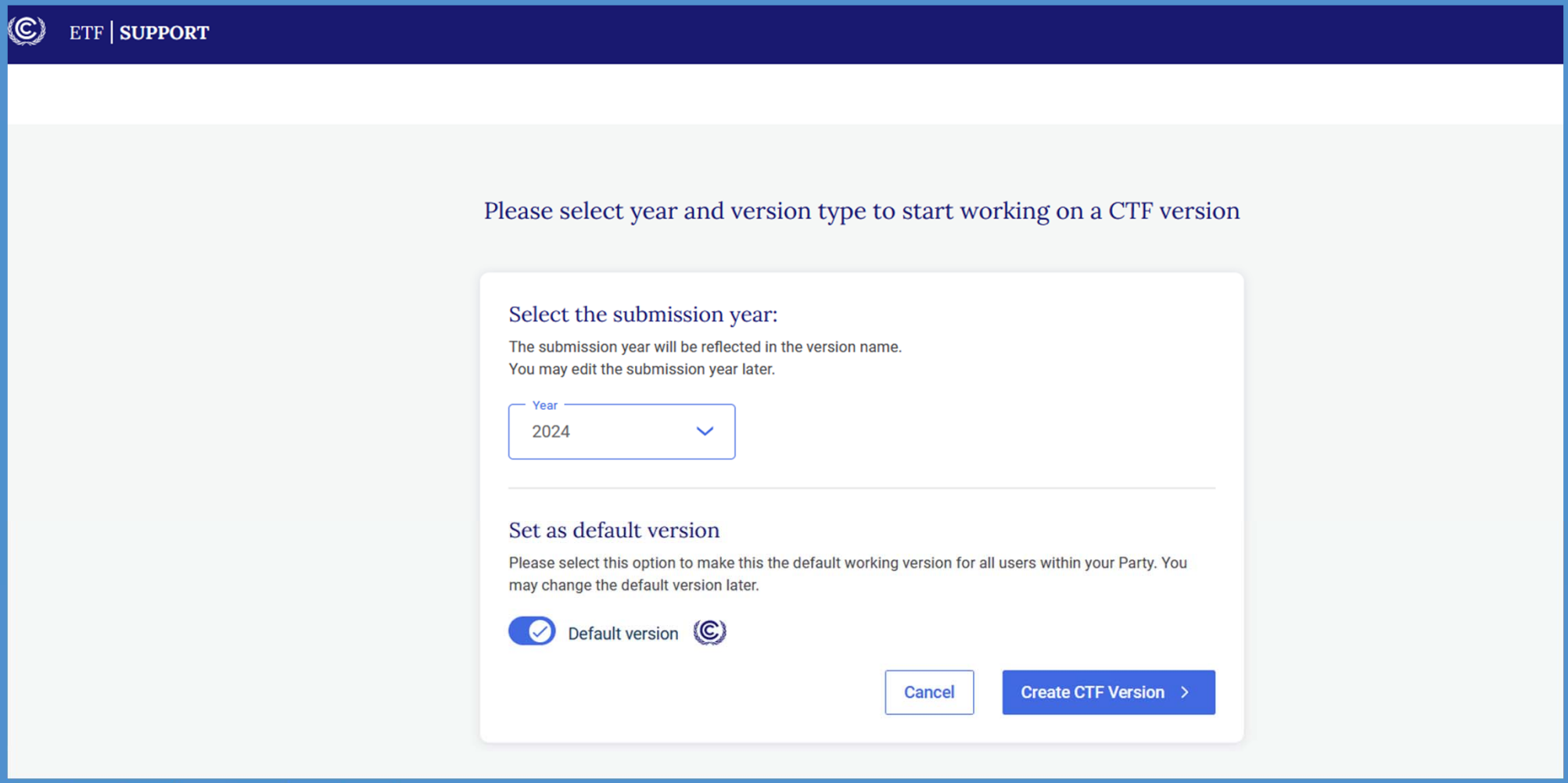
User Interface - ETF reporting tools



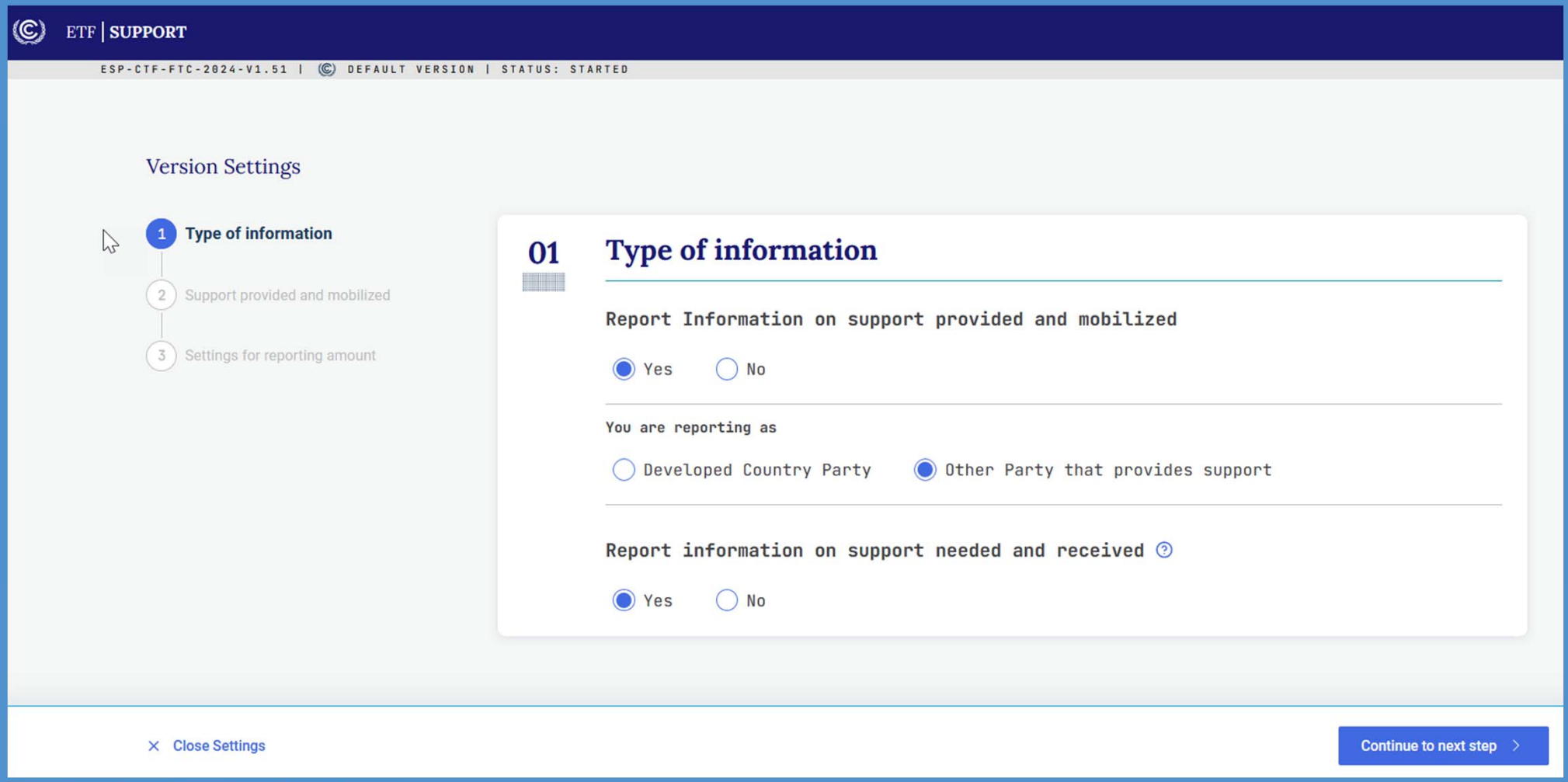
User Interface - Support



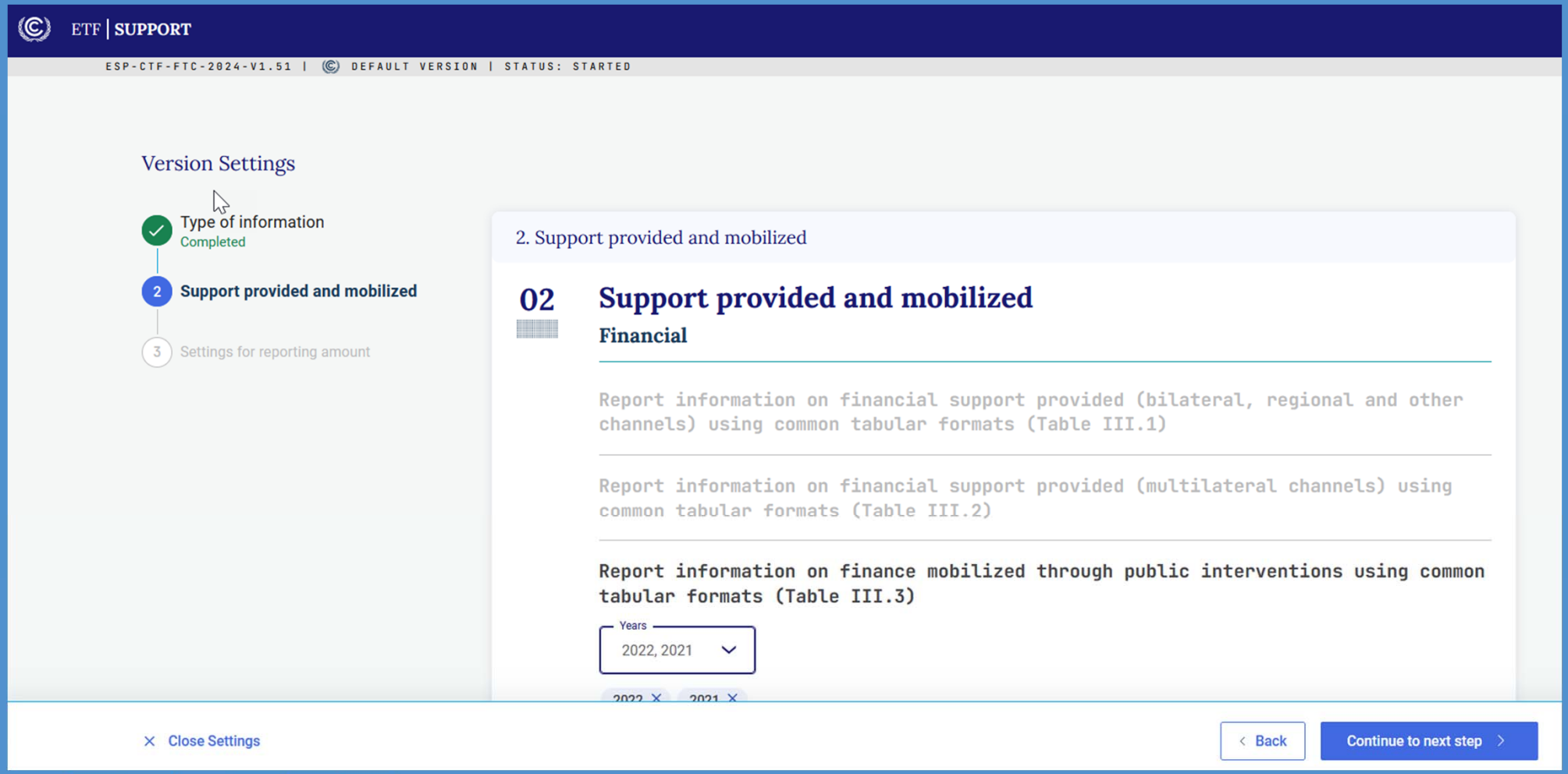
User Interface - Support



User Interface - Support



User Interface - Support



Next Steps

United Nations
Climate Change Secretariat

Test version deployment

United Nations
Climate Change Secretariat

- By 1 July – **All Parties (NFP) receive instructions to nominate 3 users -** deadline 31 July
- 15 August – **deployment of the test version** of ETF tools & assign 3 users to each Party
- Sep-Nov – **hands-on trainings for experts** on using the new ETF reporting tools
- mid November – **second release of the test version** of ETF tools (to be presented at COP 28)
- **User support** – link to quick-start guide (screen shots, guidance, etc.) & email for user access problems
- Submission of views and feedback – officially **via the submission portal** by December 2023

Scope of the Test Version – Data/Tables

United Nations
Climate Change Secretariat

GHG Inventory:

- Energy sector – all tables (12)
- Waste sector – all tables (5)

ETF Progress:

- Mitigation policies and measures, actions and plans – Table 5
- Information on projections of greenhouse gas emissions and removals:
  - Table 7 (with measures)
  - Table 8 (with additional measures)
  - Table 9 (without measures)
- Key underlying assumptions and parameters used for projections – Table 11

ETF Support:

- Financial support mobilized through public interventions – Table III.3
- Support needed: Financial – Table III.6
- Support received: Financial – Table III.7

Scope of the Test Version – Functionalities (incl. offline)

United Nations
Climate Change Secretariat

Prepare data set and data set version management (ONLY in online mode):

- Version settings, incl. flexibility (for selected tables)

Navigation tree (full navigation tree, ONLY scoped data entry grids will be rendered, country specific nodes)

Data entry grids fully functional:

- Data entry: numerical values; text values; NK values; documentation box; flexibility (only FX)

Export/Import:

- Excel for entering/modifying data (data entry grids)
- JSON for integration with IPCC software and national systems (data exchange .json for Energy sector)

Generation of reporting tables as per agreed format (in Excel) for included tables

Standard functions:

- Data validation
- Automatic calculation/aggregation of values
- Auto-save (local and on server)
- Auto-copy/complete in the GHG Inventory tool (NCV/GCV, method, EF)
- Versions management with no conflict resolution: only last version is saved

Trainings

United Nations
Climate Change Secretariat

Trainings to be provided during Regional Climate Weeks:

- **Africa** (ACW): Nairobi, Kenya, 4-8 September
- **Middle East & North Africa** (MENACW): Riyadh, Saudi Arabia, 9-12 October
- **Latin America & the Caribbean** (LACCW): Panama City, Panama, 23-27 October
- **Asia-Pacific** (APCW): Johor, Malaysia, date TBC

Parties should **strive to send the Transparency experts to these events for hands-on training**

Considering other events for Sep-Nov 2023 (regional WS, meetings) & dedicated space at COP 28

Funding needed for dedicated training events in 2024

Funding

United Nations
Climate Change Secretariat

IT project - impacted by complexity, challenging deadlines and **limited financial resources**

Parties pledged their support in Glasgow – unfortunately, **we have not received sufficient funds**

Total requirements: around 12 million EUR (by June 2024)

- Jan. 2022 – May 2023: 3.5 mil. EUR – spent
- **Jul. 2023: 2 mil. EUR – urgently needed for preparing the test version**
- Sep. 2023: 3 mil. EUR – needed for the work until the end of 2023
- Jan. 2024: 3.5 mil. EUR – needed for developing the final version

Supplementary project for providing funding – SB 300-004 /# SB-014980/"Development of the information hub and related reporting and review systems and tools used under the ETF"

Way forward

United Nations
Climate Change Secretariat

- **Continuing the IT development** of the back-end solution and UI/UX design
- **Continuing the work with IPCC** for finalizing the mapping between 2006 IPCC GLs and CRT and for the interoperability with IPCC Software
- Completing the **test version of the new reporting tools – release on 15 August**
- Preparing the organization of **technical training workshops**
- Initiating **preparatory work** on the new **ETF review tools and Data Warehouse** project
- Continuing to engage with Parties and donors for **providing sufficient resources** for completing the development of the tools and conducting training workshops

Thank you!

United Nations
Climate Change Secretariat