

Connectivity Planning Platform Navigator

User guide for the platform

May 2026





Introduction

CPP Navigator

CPP Navigator

- The Connectivity Planning Platform Navigator guides users through creating connectivity projects, preparing scenarios, running models, and viewing results.
- This guide follows the workflow of the CPP tutorial video so users can easily replicate each step on the platform.



CPP End-to-End Planning Workflow



Datasets:

CPP combines user-provided and system-provided datasets to create the foundation for accurate, real-world connectivity analysis.

Models:

Models apply technical and cost parameters to simulate different technology options and generate feasible connectivity solutions.

Scenarios:

Scenarios define the planning objectives and constraints—such as demand, budget, and timelines—to guide the system toward optimal results.





Access to the login page

CPP Navigator

Access to the login page

Sign In

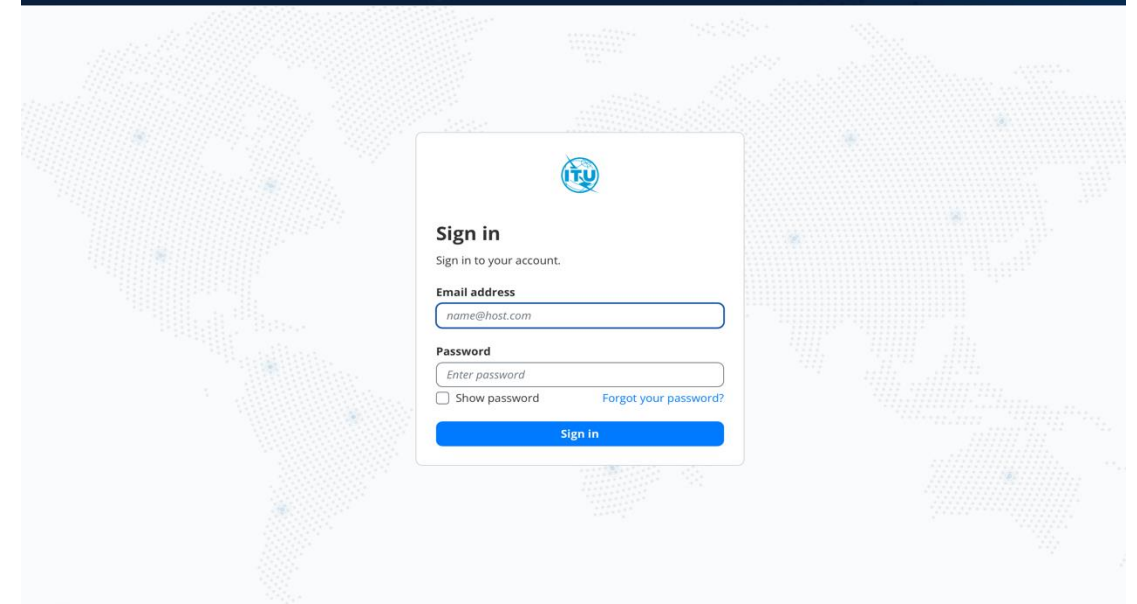
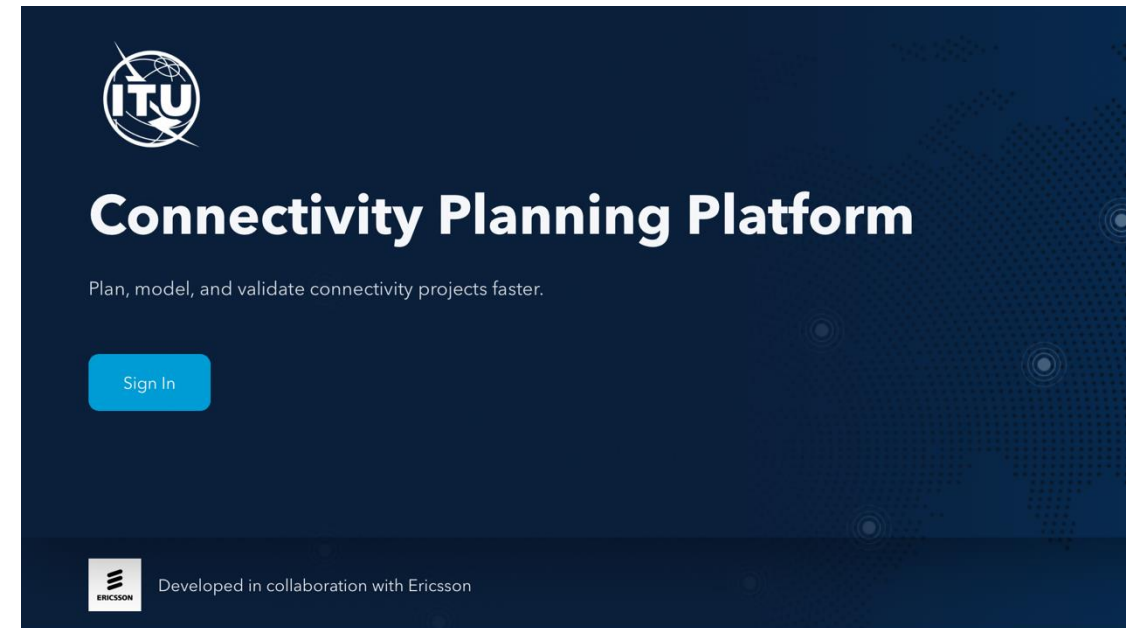
Once approved, sign in using:

- Your email
- Your password

After login, you gain access to:

- Projects dashboard
- Dataset library
- Scenario builder
- Interactive map

All tools and models are available to your user role.



User Roles

The CPP supports role-based access:

- *Viewer*: Can view existing projects and results
- *Analyst*: Can create/edit projects, scenarios, datasets
- *Administrator*: Can manage users, data, and country workspace

If your role needs to be changed, contact your country administrator or the ITU support team at cppsupport@itu.int





Creating a New Dataset

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Ensuring your data is accurate, complete, and relevant is crucial because the platform's analysis, modelling, and final recommendations all depend on the datasets you upload.

Data templates are provided.



Start a New Dataset

Select:

- Dataset Name
- Country
- Dataset Type

Select the files to be uploaded.

Click on **Validate** and **Create**

The screenshot shows the ITU Connectivity Planning Platform interface. On the left is a blue sidebar with the ITU logo and 'CONNECTIVITY PLANNING PLATFORM beta'. The sidebar menu includes 'Projects' (with a sub-menu: 'All projects', 'Add new', 'Scenarios'), 'Models', and 'Datasets'. The main content area is titled 'All datasets' and features a green '+' button. A modal window titled 'Create a new dataset' is open, containing the following fields: 'Name' (text input with 'Benin - Cell Towers'), 'Country' (dropdown menu with 'Benin (Republic of)' and a link to 'ITU list of Member States'), and 'Dataset type' (dropdown menu with 'Select dataset type...' and a 'Download template' link). Below these fields is a 'Select file(s)' button with an upload icon. At the bottom right of the modal is a green 'Validate and create' button.



All Datasets

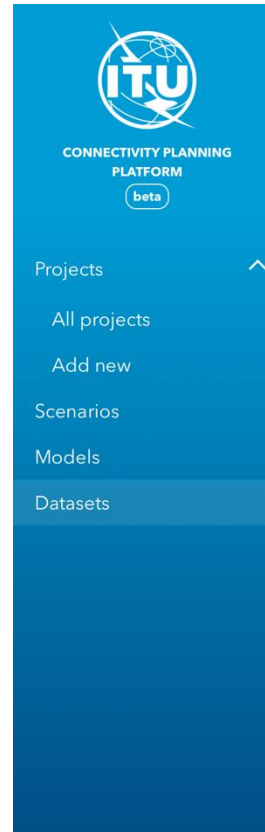
The platform allows uploading:

- The Telecommunication Infrastructure
- Points of Interest Data

And uses:

- Elevation
- Road Infrastructure
- Population Data

Essential for effective connectivity planning.



All datasets

ID	Status	Name	Type	Country	Date
4	success	Example Mobile Coverage Details	mobilecoverage	Example Calculation Project	22 Dec 2025
3	success	Example Fibre Nodes Details	transmissionnode	Example Calculation Project	22 Dec 2025
2	success	Example Cellular Sites Details	cellsite	Example Calculation Project	22 Dec 2025
1	success	Example Points of Interest Details	pointofinterest	Example Calculation Project	22 Dec 2025





Creating a New Project

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Every analysis in the
Connectivity Planning Platform
begins with a project.



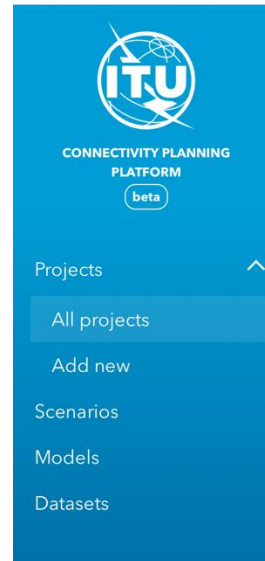
Start a New Project

- Go to **Projects**
- Click **Create New Project**

You may **Save** or **Cancel** at any step.

Once saved, the project appears as a

Draft in the **Project List**.



All projects

[New empty project](#)

ID	Status	Name	Country	Description	Date
30	calculated ⓘ	Example Calculation Project - Minimize Total Cost of Ownership View	Example Calculation Project	Example Calculation Project - Minimize Total Cost of Ownership	29 Jan 2026



Step 1: Project Information

Enter:

- Project Name
- Country of Focus
- Project Description

You may Save or Cancel at any step.

Once saved, the project appears as a

Draft in the Project List.

ITU
CONNECTIVITY PLANNING
PLATFORM
beta

Projects ^

All projects

Add new

Scenarios

Models

Datasets

Create a new project

Step 1: Project information ^

Project name

Country | v
[ITU list of Member States](#)

Project description

Save step 1

Step 2: Scenario and model v

Step 3: Model parameters and datasets v

Step 4: Run calculations v



Step 2: Scenario and Model Selection

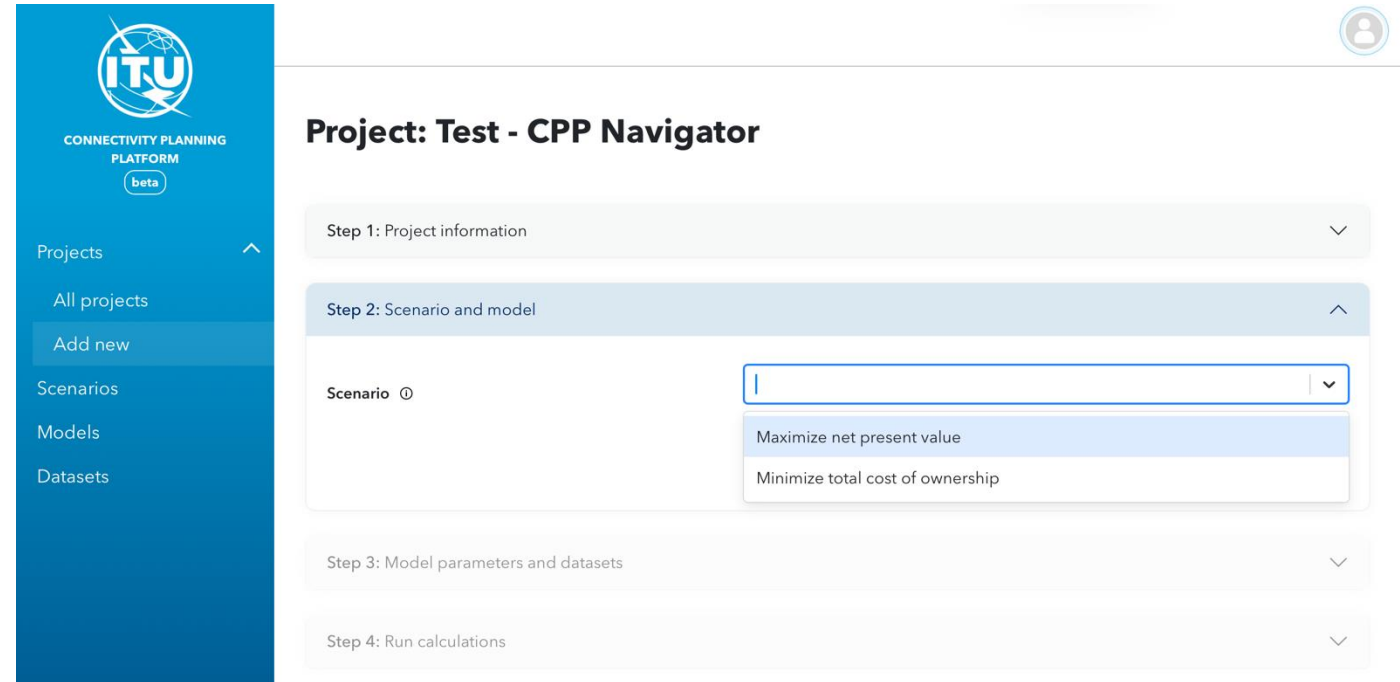
Provide a structured setup for planning, while models simulate specific telecommunication technologies.

Select:

- Maximize Net Present Value
- Or Minimize the Total Cost of Ownership

You may **Save** or **Cancel** at any step.

Once saved, the project appears as a **Draft** in the **Project List**.



The screenshot displays the ITU Connectivity Planning Platform interface. On the left is a blue sidebar with the ITU logo and 'CONNECTIVITY PLANNING PLATFORM beta' text. Below the logo are navigation links: 'Projects' (with an upward arrow), 'All projects', 'Add new', 'Scenarios', 'Models', and 'Datasets'. The main content area is titled 'Project: Test - CPP Navigator' and features a vertical list of steps: 'Step 1: Project information', 'Step 2: Scenario and model' (highlighted in blue), 'Step 3: Model parameters and datasets', and 'Step 4: Run calculations'. Under 'Step 2', there is a 'Scenario' dropdown menu with a search icon and a list of options: 'Maximize net present value' and 'Minimize total cost of ownership'. A user profile icon is visible in the top right corner.



Step 2: Scenario and Model Selection

Scenario Parameters:

Enter **Parameter Value** for each

Parameter.

Select Models:

- Point-to-Point Radio
- Cellular
- Satellite
- Fibre Optic

You may **Save** or **Cancel** at any Step.

The screenshot shows the ITU Connectivity Planning Platform interface. The sidebar on the left contains the ITU logo and navigation options: Projects (with a sub-menu for All projects and Add new), Scenarios, Models, and Datasets. The main content area is titled 'Step 2: Scenario - Maximize net present value'. It features a dropdown menu for the scenario, currently set to 'Maximize net present value'. Below this is a description: 'Assign the technologies that maximize the net present value of the project'. A table lists scenario parameters:

Parameter name	Parameter value
Maximum total expenditure [USD]	500000
Project planning period [Years]	10
Demand per user [Mbps]	10

Below the table, it shows 'Models' with 'No models selected' and a section 'Add a model to your scenario' with buttons for 'Point-to-point radio +', 'Cellular +', 'Satellite +', and 'Fibre optic +'. A 'Save step 2' button is located at the bottom right.



@ITUCPP

Step 2: Scenario and Model Selection

Scenario Parameters:

Enter **Parameter Value** for each

Parameter.

Select Models:

- Point-to-Point Radio
- Cellular
- Satellite
- Fibre Optic

You may **Save** or **Cancel** at any Step.

The screenshot shows the ITU Connectivity Planning Platform interface. The left sidebar contains navigation options: Projects (All projects, Add new), Scenarios, Models, and Datasets. The main content area is titled 'Project: Test - CPP Navigator' and shows 'Step 2: Scenario - Minimize total cost of ownership'. The scenario is set to 'Minimize total cost of ownership' with the description 'Assign the technologies that minimize the total cost of ownership'. A table lists scenario parameters: 'Project planning period [Years]' with a value of 10, and 'Demand per user [Mbps]' with a value of 10. Below the table, there are buttons for adding models: 'Point-to-point radio +', 'Cellular +', 'Satellite +', and 'Fibre optic +'. A 'Save step 2' button is located at the bottom right.

Parameter name	Parameter value
Project planning period [Years]	10
Demand per user [Mbps]	10



Step 3: Upload Input Datasets

Updated datasets are the key to accurate modelling and reliable connectivity planning.

Select Datasets

- Cellular Towers
- Transmission Nodes
- Points of Interest
- Mobile Coverage

Ensuring they match the country and model requirements.

Enter **Parameter** for each model.

The screenshot shows the ITU Connectivity Planning Platform interface. The left sidebar contains the ITU logo and navigation options: Projects, All projects, Add new, Scenarios, Models, Datasets, and Support hub. The main content area displays a progress bar with three steps: Step 1: Project information, Step 2: Scenario - Maximize net present value, and Step 3: Model parameters and datasets. Step 3 is currently active. Below the progress bar is a table with three columns: Models, Model parameters, and Datasets. The 'Point-to-point radio' model is selected, and its parameters are listed with input fields. The 'Datasets' column shows two dropdown menus for selecting datasets, one for 'Point of Interest' and one for 'Cellular sites'. A 'Save step 3' button is located at the bottom right of the interface.

Models	Model parameters	Datasets
Point-to-point radio	Access link bandwidth, [MHz per link]Ⓞ <input type="text" value="10"/>	Type: Point of Interest <input type="text" value="Select a dataset"/>
	Access link maintenance cost, [Fraction of hardware CapEx]Ⓞ <input type="text" value="0.04"/>	Type: Cellular sites <input type="text" value="Select a dataset"/>
	Annual ISP fees per 1 Mbps, [USD per Mbps per year]Ⓞ <input type="text" value="24"/>	
	Annual license fee per 1 MHz, [USD per Mhz per year]Ⓞ <input type="text" value="100"/>	
	Point-to-point radio link setup cost, [USD per link]Ⓞ <input type="text" value="1000"/>	
	One time license fee per 1 MHz, [USD per Mhz]Ⓞ <input type="text" value="500"/>	
	Hardware refresh period, [Years]Ⓞ <input type="text" value="5"/>	



Step 4: Run Calculations

Start Calculation

- Once calculations are complete, view your projects in the project list interface.

You may Save or Cancel at any step.

Once saved, the project appears as a Draft in the Project List.

The screenshot displays the ITU Connectivity Planning Platform interface. On the left is a blue sidebar with the ITU logo and 'CONNECTIVITY PLANNING PLATFORM beta'. The sidebar menu includes 'Projects' (with an up arrow), 'All projects', 'Add new', 'Scenarios', 'Models', and 'Datasets'. The main content area is titled 'Project: Test' and shows a progress bar with four steps: 'Step 1: Project information', 'Step 2: Scenario - Maximize net present value', 'Step 3: Model parameters and datasets', and 'Step 4: Run calculations' (which is highlighted in blue and has an up arrow). Below the steps is a 'Project Overview' section containing the text: 'Test is located in **Example Calculation Project** and uses the scenario **Maximize net present value**. Model calculations will be performed using the following models: **Point-to-point radio, Fibre optic, Satellite, Cellular**. The calculation process can take from several minutes to several hours. You can leave this page and monitor the status on the project view page.' At the bottom of the overview is a light blue bar with the text 'Calculation in progress...'. A user profile icon is visible in the top right corner of the interface.



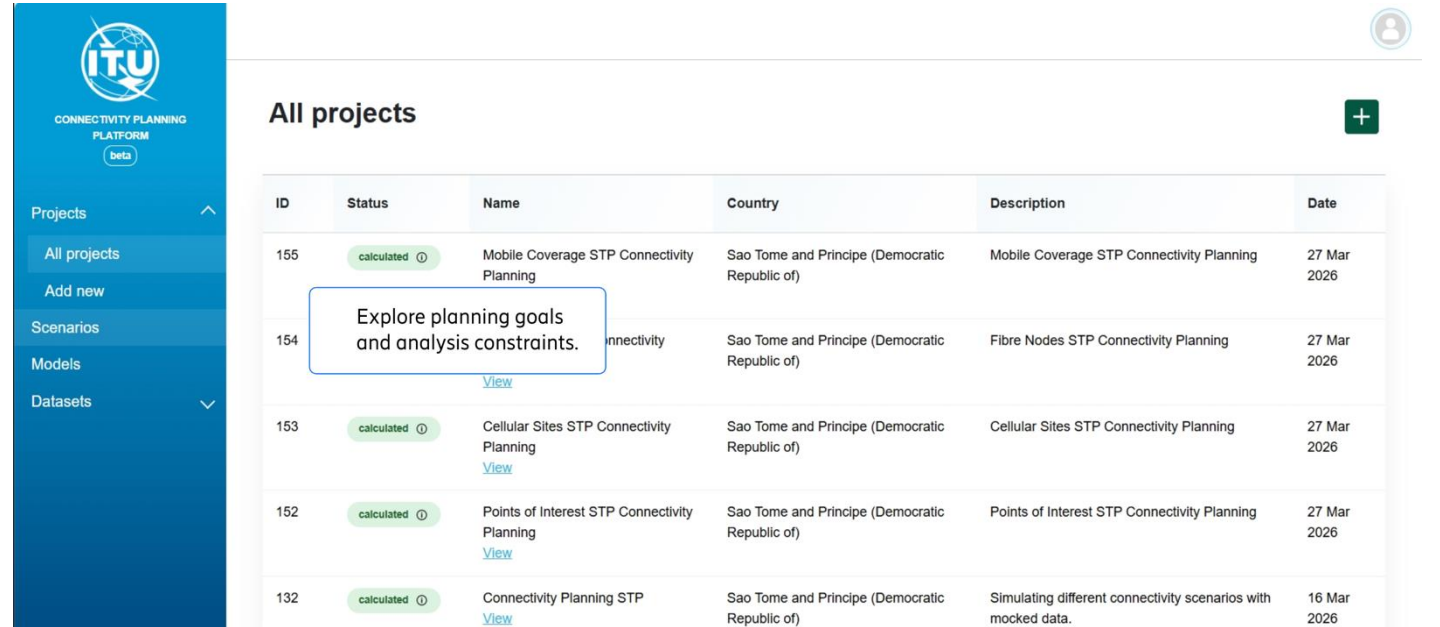


All Projects

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Project Overview

- Once calculations are complete, check if your projects shows up in the project list.
- Press View/Edit/Delete

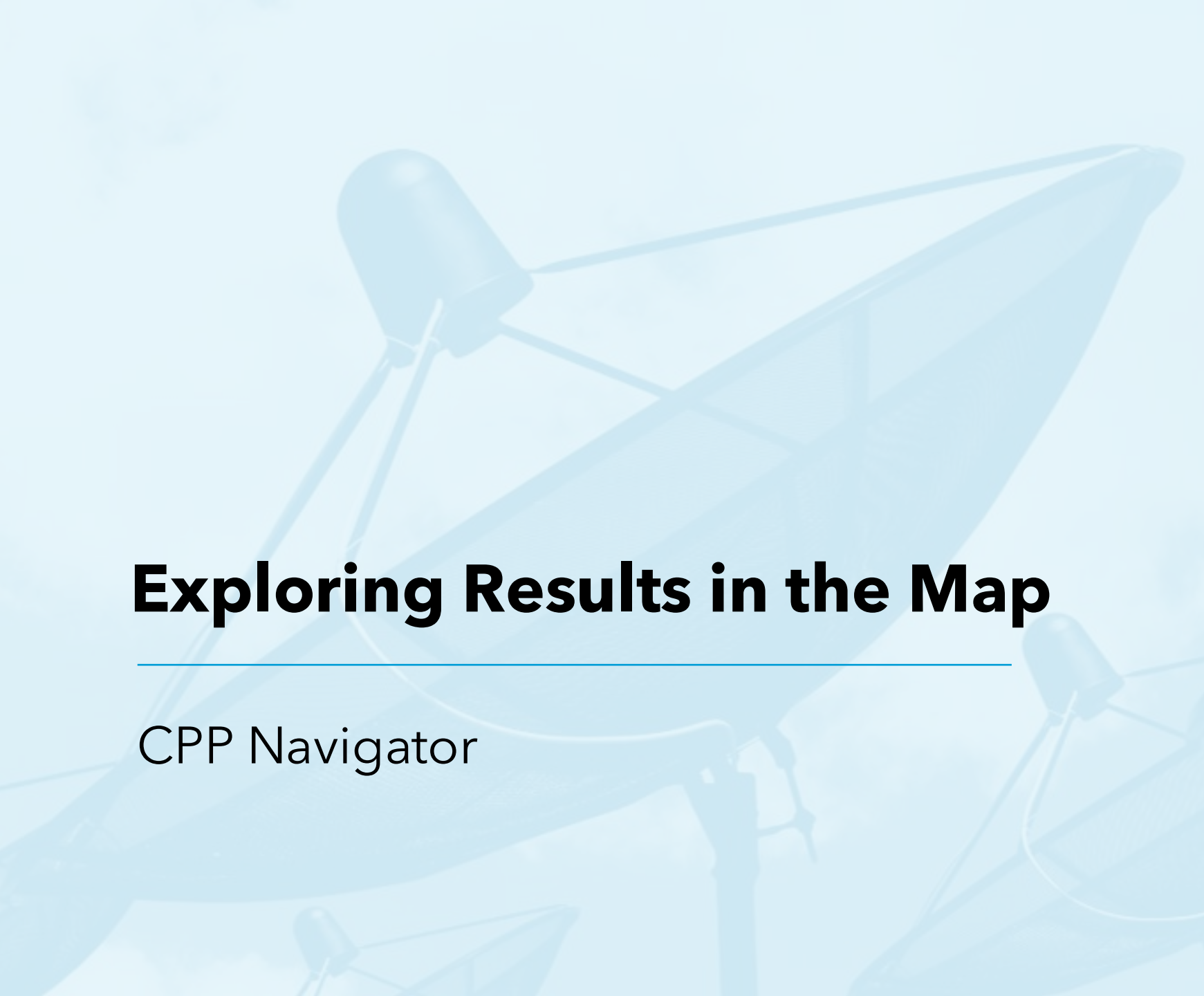


The screenshot displays the ITU Connectivity Planning Platform interface. On the left is a blue sidebar with the ITU logo and the text 'CONNECTIVITY PLANNING PLATFORM' and 'beta'. The sidebar menu includes 'Projects' (expanded), 'All projects', 'Add new', 'Scenarios', 'Models', and 'Datasets'. The main content area is titled 'All projects' and features a table with the following data:

ID	Status	Name	Country	Description	Date
155	calculated	Mobile Coverage STP Connectivity Planning	Sao Tome and Principe (Democratic Republic of)	Mobile Coverage STP Connectivity Planning	27 Mar 2026
154		Connectivity	Sao Tome and Principe (Democratic Republic of)	Fibre Nodes STP Connectivity Planning	27 Mar 2026
153	calculated	Cellular Sites STP Connectivity Planning	Sao Tome and Principe (Democratic Republic of)	Cellular Sites STP Connectivity Planning	27 Mar 2026
152	calculated	Points of Interest STP Connectivity Planning	Sao Tome and Principe (Democratic Republic of)	Points of Interest STP Connectivity Planning	27 Mar 2026
132	calculated	Connectivity Planning STP	Sao Tome and Principe (Democratic Republic of)	Simulating different connectivity scenarios with mocked data.	16 Mar 2026

A callout box highlights the 'Connectivity' project (ID 154) with the text: 'Explore planning goals and analysis constraints.' Below the callout is a 'View' link.





Exploring Results in the Map

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The output is where insights become actionable.



Input and Output Data

Accessing Results:

Open your project after the calculation finishes.

What You'll See:

The map displays:

- Towers capable of connecting POIs
- Fiber routes linking institutions to network nodes
- Model outputs for each technology
- Infrastructure gaps
- Alternative connection pathways

The screenshot shows the ITU Connectivity Planning Platform interface. On the left is a blue sidebar with the ITU logo and navigation options: Projects, All projects, Add new, Scenarios, Models, and Datasets. The main content area displays the project title "[30] Example Calculation Project - Minimize Total Cost of Ownership" and a status bar indicating "[11] calculated, N/A". Below this, there are two panels: "SCENARIO" and "LINKED MODELS".

SCENARIO
Minimize total cost of ownership
Project **Example Calculation Project - Minimize Total Cost of Ownership** uses this scenario with the following inputs.

Demand per user The data throughput required per user (megabits per second, Mbps)	10
Project planning period Project planning period (years)	10

LINKED MODELS

- Point-to-point radio**
Point-to-point radio model
- Cellular**
Cellular model
- Satellite**
Satellite model
- Fibre optic**
Fibre model

At the bottom, there is a link: [Download the input and output data](#) from the links at the bottom of the page.



Interactive Maps

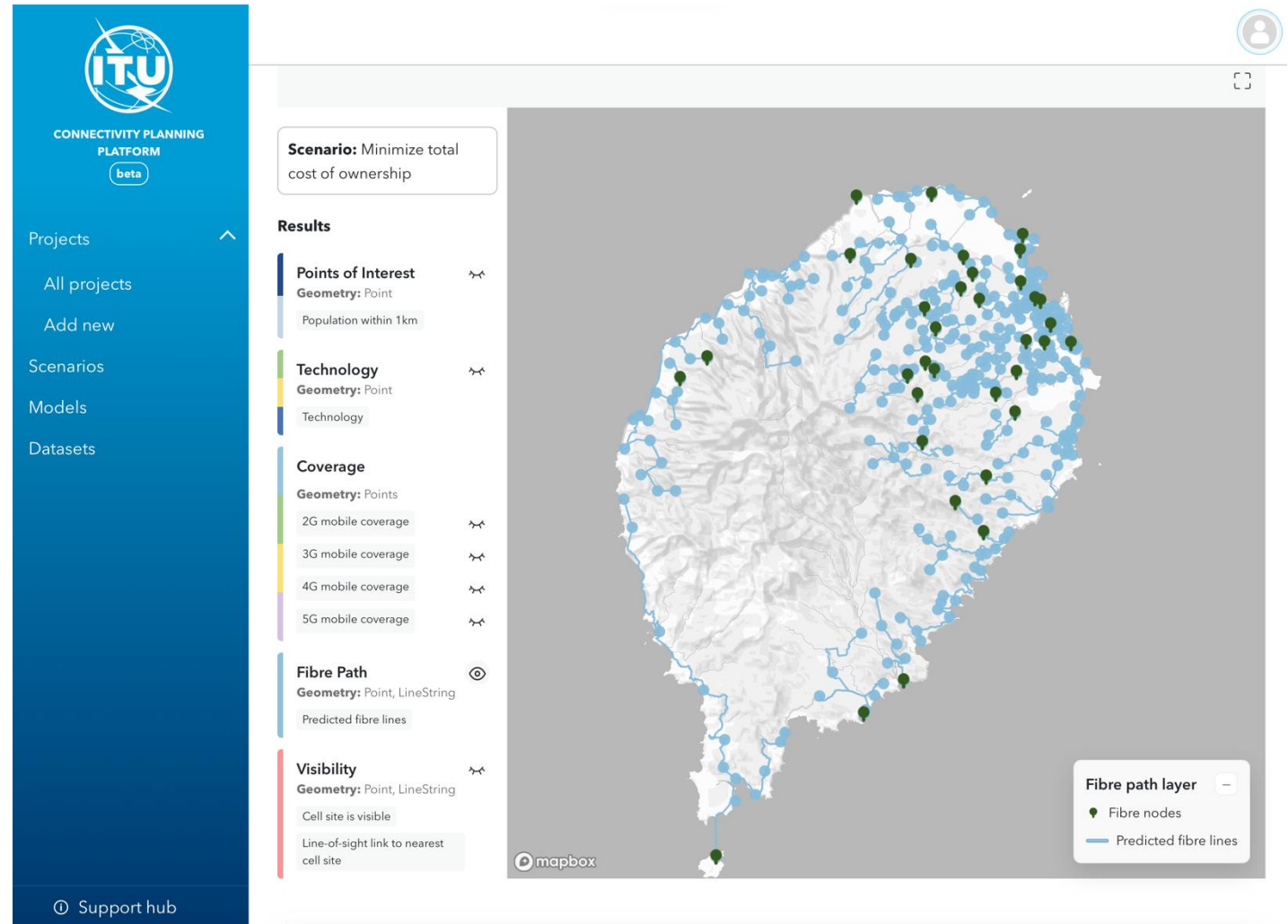
Inspecting Results

Hover over:

- Towers
- Transmission Nodes
- POIs

To see connection details such as:

- Feasibility
- Distances
- Linkages
- Technology recommendations





Use Insights for Planning & Policy

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The CPP provides a deep and practical understanding of your country's connectivity landscape.



The Results can be used to

- Identify underserved communities
- Prioritise institutions (schools, hospitals, clinics)
- Compare technology options
- Plan fibre expansion or cellular upgrades
- Design resilient networks with satellite or microwave
- Inform national broadband strategies
- Guide investment and budgeting discussions

This ensures decisions are strategic, evidence-based, and impactful.





Practical Use Cases

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Practical Use Cases

Institutional Connectivity

- Identify which towers or transmission nodes can serve specific schools or hospitals.

Rural Expansion Planning

- Compare fibre, microwave, and cellular solutions for remote areas.

Redundancy and Resilience

- Explore satellite or microwave backup options for critical institutions

National Strategy Development

- Use outputs to shape broadband plans and engage development partners.





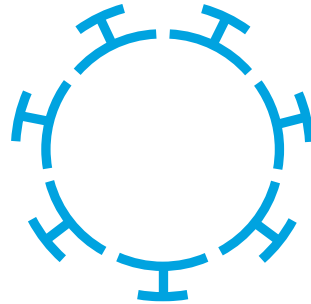
Support

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Challenges

- Data scheme errors
- Incorrect coordinate systems
- Missing required fields
- Datasets not matching the scenario country
- Incomplete model parameters



Solutions

- Use the dataset validation interface
- Confirm schema and field names
- Reassign datasets to the correct country
- Verify scenario setting



Get Support

- For further assistance, contact your national administrator or CPP Team support: cppsupport@itu.int



Support

CPP Interactive Navigator



www.itu.int

