Enhancing at an Early Stage the Investment Value Chain of Energy Efficiency Projects

Deliverable 4.4: User Manuals
(final version)

March 2021

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TRIPLE-A

Enhancing at an Early Stage the Investment Value Chain of Energy Efficiency Projects

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Author(s) (Organisation)	**Filippos Dimitrios Mexis (NTUA), Konstantinos Touloumis (NTUA), Aikaterini Papapostolou (NTUA), Chara Karakosta (NTUA)**
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Preface

Triple-A has a very practical result-oriented approach, seeking to provide reliable information answering on three questions:

- How to ***assess*** the financing instruments and risks at an early stage?
- How to ***agree*** on the Triple-A investments, based on selected key performance indicators?
- How to ***assign*** the identified investment ideas with possible financing schemes?

The Triple-A scheme comprises three critical steps:

- ***Step 1 - Assess:*** Based on Member States (MS) risk profiles and mitigation policies, including a Web based database, enabling national and sectoral comparability, market maturity identification, good practices experiences exchange, reducing thus uncertainty for investors.
- ***Step 2 - Agree:*** Based on standardised Triple-A tools, efficient benchmarks, and guidelines, translated in consortium partners' languages, accelerating and scaling up investments.
- ***Step 3 - Assign:*** Based on in-country demonstrations, replicability and overall exploitation, including recommendations on realistic and feasible investments in the national and sectoral context, as well as on short and medium term financing.

Who We Are

	Participant Name	Short Name	Country Code	Logo
1	National Technical University of Athens	NTUA	GR	EPU
2	ABN AMRO Bank N.V.	ABN AMRO	NL	ABN·AMRO
3	Institute for European Energy and Climate Policy Stichting	IEECP	NL	IEECP
4	JRC Capital Management Consultancy & Research GmbH	JRC	DE	jrc CAPITAL MANAGEMENT
5	GFT Italy srl	GFT Italy	IT	GFT
6	CREARA Consulting SL	CREARA	ES	creara
7	Adelphi Research Gemeinnützige GMBH	adelphi	DE	adelphi
8	Piraeus Bank SA	PB	GR	
9	University of Piraeus Research Center	UPRC	GR	TEESlab
10	SEVEn, The Energy Efficiency Center	SEVEn	CZ	SEVEn
11	Public Investment Development Agency	VIPA	LT	VIPA
12	National Trust Ecofund	NTEF	BG	NATIONAL TRUST ECO FUND

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Table of Contents

Figures

Executive Summary

The Triple-A Standardised Tools are a web-based application (https://toolbox.aaa-h2020.eu/), which provides information on the identification and financing of Triple-A investments. More specifically, the Assess Tool evaluates mainly the risks and maturity of energy efficiency investments along with the EU Taxonomy compliance, the Agree Tool identifies the Triple-A investments that meet specific requirements, and the Assign Tool matches the investments with state-of-the-art green financing trends.

The report provides a user manual, including all necessary steps that a user should follow for each one of the Tools, and explains the produced output in each methodological step. The Triple-A Tools are analysed individually, reporting all the required operations during the navigation in the information platform. A user manual video has been also released to visualise the Tools' navigation, giving valuable information to potential users.

This deliverable is an update of the previously submitted deliverable, namely the "D4.3: User manuals (first version)" - M10, June 2020.

1 Introduction

The Triple-A scheme is introduced to identify "Triple-A" energy efficiency (EE) investments, aiming to reduce the respective time and effort required at the crucial phase of the investment's conceptualisation and increase transparency and efficiency of the decision making.

The Triple-A Standardised Tools provide a result-oriented approach, trying to answer the following questions:

- How to **assess** the financing instruments and risks?
- How to **agree** on the Triple-A investments based on selected key performance indicators?
- How to **assign** the identified investment ideas with possible financing schemes?

The purpose of this report is to provide a user manual for each Tool in order to support the user of the Triple-A Standardised Tools to navigate the web application better. The Triple-A Tools are accessible through the Triple-A Standardised Toolbox Platform (Standardised Triple-A Toolbox: http://toolbox.aaa-h2020.eu/), which can be reached through the direct link, or the Triple-A webpage (https://aaa-h2020.eu/tools/). The aim is to describe the approach that is followed to identify the Triple-A investments, criteria, examples, and methodology. These guidelines include step-by-step navigation, providing screenshots and explaining the required user interaction for each step of the process.

In order to support potential users in easily navigating and using the Tools, a dedicated video along with supportive slides are developed to act as user manuals, including all the steps that need to be followed in order for a project to be inserted and evaluated through the Tools, as well as for the matchmaking process (Tools with financing instrument) to be realised. The video and the supporting slides are incorporated in Triple-A's official website, facilitating users (investors, financiers, project developers) to use the Tools without reading long report.

In particular, the instructions video is available online in Triple-A YouTube channel[1], Triple-A website Home, Tools[2] and Media[3] pages. The Triple-A Tools Instructions Video shows and describes all the available functionalities and services that the Triple-A Tools provide in under 10 minutes, acting as an efficient, quick start guide for stakeholders that opt to use the Tools with the least effort needed.

The structure of the particular deliverable proceeds as follows:

In chapter 2, a quick start of the Tools is presented with the basic steps for registration. In Section 3 the basic operations of the Tools are presented, such as the homepage, the login, and the register operations. In chapter 4, the Triple-A Assess Tool is explained, divided into two steps: The EU Taxonomy compliance and the Risk Assessment. Chapter 5 and 6 are dedicated to the Triple-A Agree and Assign Tools. All details about the necessary input data are thoroughly described, along with the interfaces and functionalities of the Tools. Section 7 describes the "My Project" Interface, which provides the user with the complete lists of projects that have been submitted to the Assess and the Agree Tools. Section 8 presents the dedicated video that has been developed to provide all the details to the Tools' users regarding their navigation. Finally, the main conclusions of the present report are summarised in Section 9.

[1] https://www.youtube.com/watch?v=wd1XG4k6uyk
[2] https://aaa-h2020.eu/tools
[3] https://aaa-h2020.eu/index.php/media

2 Quick Start

Once landed on the Tools Homepage (https://toolbox.aaa-h2020.eu/), the user should register to gain access. The registration is required as the Triple-A Tools provide personalised functionalities, results, and databases linked to each user, based on the user's input (e.g., the database of projects submitted). When registered and redirected to the Tools Homepage, by clicking on one of the Assess, Agree, Assign icons, the user can navigate to the corresponding Tool (Figure 1).

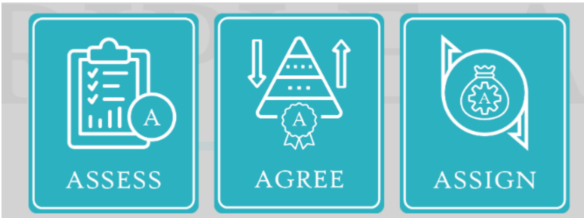


Figure 1: Triple-A Tools - Assess, Agree, Assign Links

The basic steps of the Tools are shown below (Figure 2).

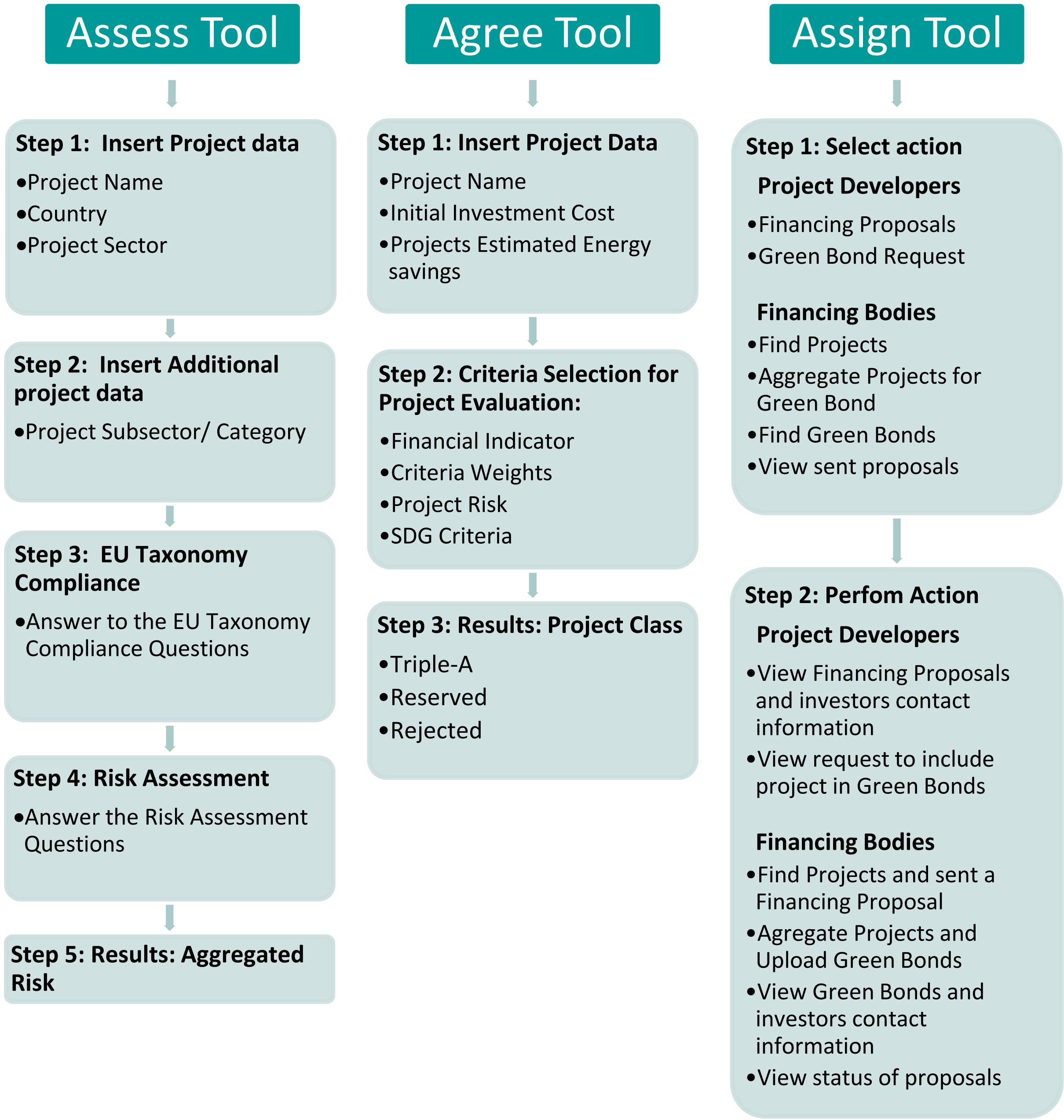


Figure 2: Triple-A Tools - Quick Start: Tools Basic Steps

3 Accessing the Triple-A Tools

The following sections provide basic information that is of general interest to all users of the Triple-A Standardised Tools.

The Triple-A Tools are accessible through the Triple-A Standardized Toolbox platform (http://toolbox.aaa-h2020.eu/) and could also be reached through the dedicated Triple-A webpage https://aaa-h2020.eu/tools/.

3.1 Homepage

The Triple-A Tools homepage contains some initial information about the Triple-A methodology. When the user enters the Tool is able to access and navigate the homepage without any additional subscription. The user also has the opportunity to navigate quickly to the three individual steps of the methodology by clicking on the respective icon.

There is a navigation bar on the top of the page that includes hyperlinks for the three individual steps of the Triple-A Tools.

In the right part of the navigation bar, the user may find the **"Login"** and **"Register"** buttons.

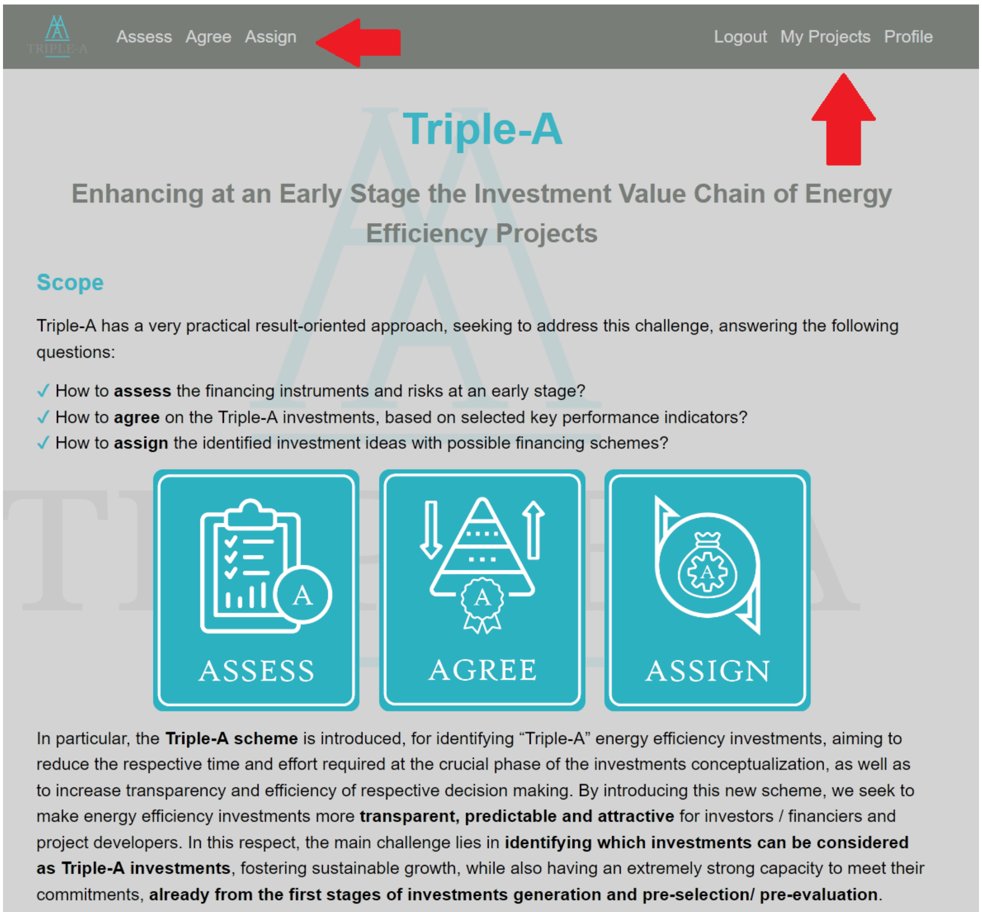


Figure 3: Triple-A Tools - Homepage

3.2 Signing up for the Triple-A Tool

Access to the Triple-A Standardised Tool is protected by a **username** and **password credentials**. If the user is not logged in, access to the Tool is limited. The first time that the Tool is used, registration is required. The registration is a quick process that is completed in a few minutes.

Firstly, the user selects a username with only letters, digits, and some specific special symbols, as it is thoroughly described on the screen. Secondly, the user should enter his **e-mail**. The final step of the process is to select a password and type it twice. The password cannot be similar to the username or the e-mail, and it cannot be a commonly used password for safety reasons. It should contain at least eight (8) characters, and it must not be entirely numeric.

If the user already has an account, they could click on the "**Login**" button and login to the Triple-A Tool and access all the available functionalities. The only required information, in this case, is the username and the password.

While signing up, users should select their **type**. The user type defines the interface that will be loaded when the user enters the Assign Tool.

The alternative user types are the following:

- **Financing Bodies** (Green Investment Banks, Investment Funds (or managers), Unit Investment Trusts, Developers, and Managers of Financial Products.
- **Project Developers & Companies** (Energy Companies, ESCOs, Credit Professionals, Management Investment Companies, and Construction Companies.
- **Policy Makers and Policy Support Institutes** (EC Directorates & Units, Governments or Local Authorities, Ministries, Policy Support Institutes.
- **Researchers and Academia in Business and Techno-economic Fields** (Individuals Engaged in Research Initiatives).
- **Other** (Technology Suppliers, Property valuers, Real Estate Agents, Technical Chambers, Notaries, Association Individuals (e.g., Architects, Engineers), Media, NGOs).

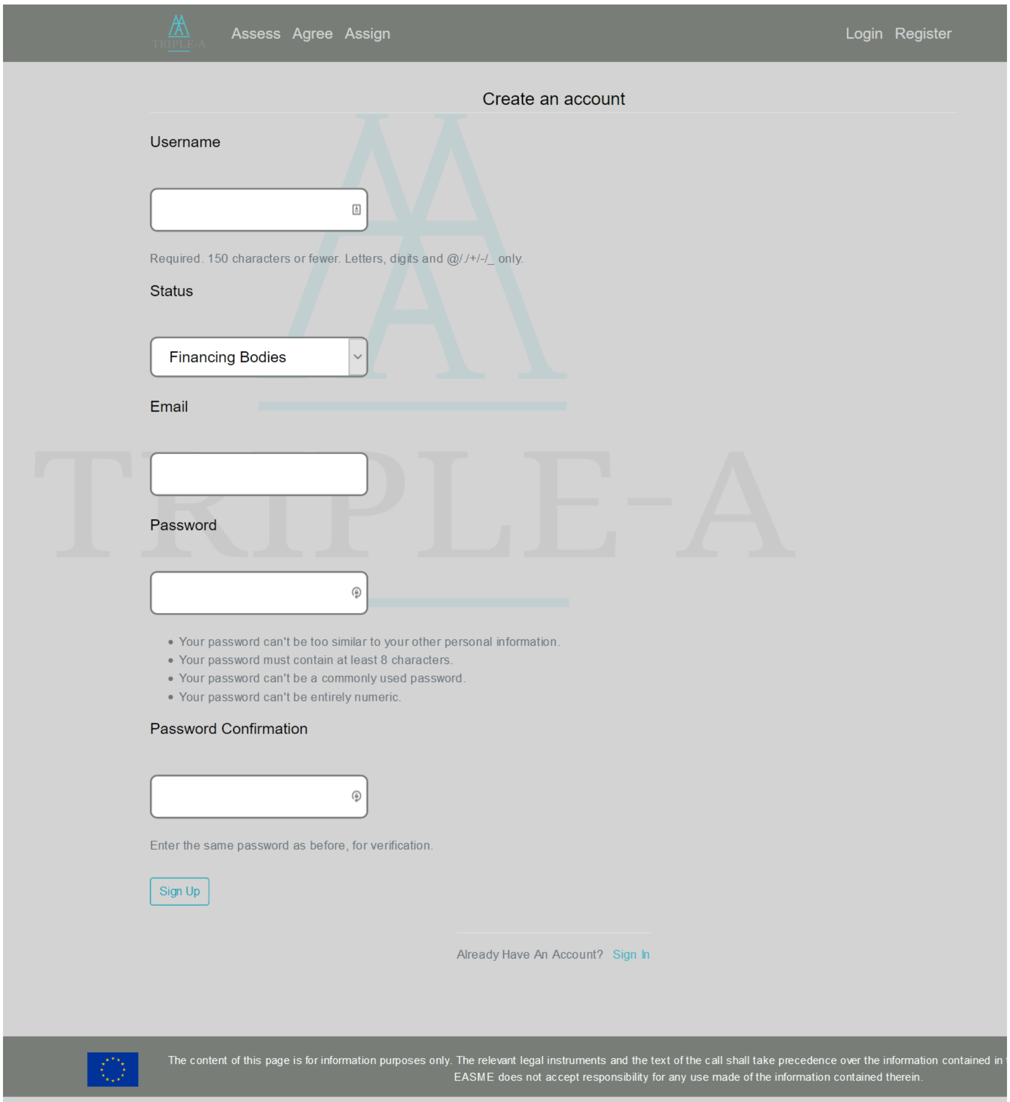


Figure 4: Triple-A Tools - Registration Screen

Once the sign-up is procedure is completed, users have the opportunity to edit their profiles and add technical and financial data regarding their company/ organisation under the **"Profile"** section on the top right corner of the Triple-A Tools page (Figure 3). The section included predefined surveys that can be completed to update the user's profile. The surveys are customised to each user type, and the procedure is optional.

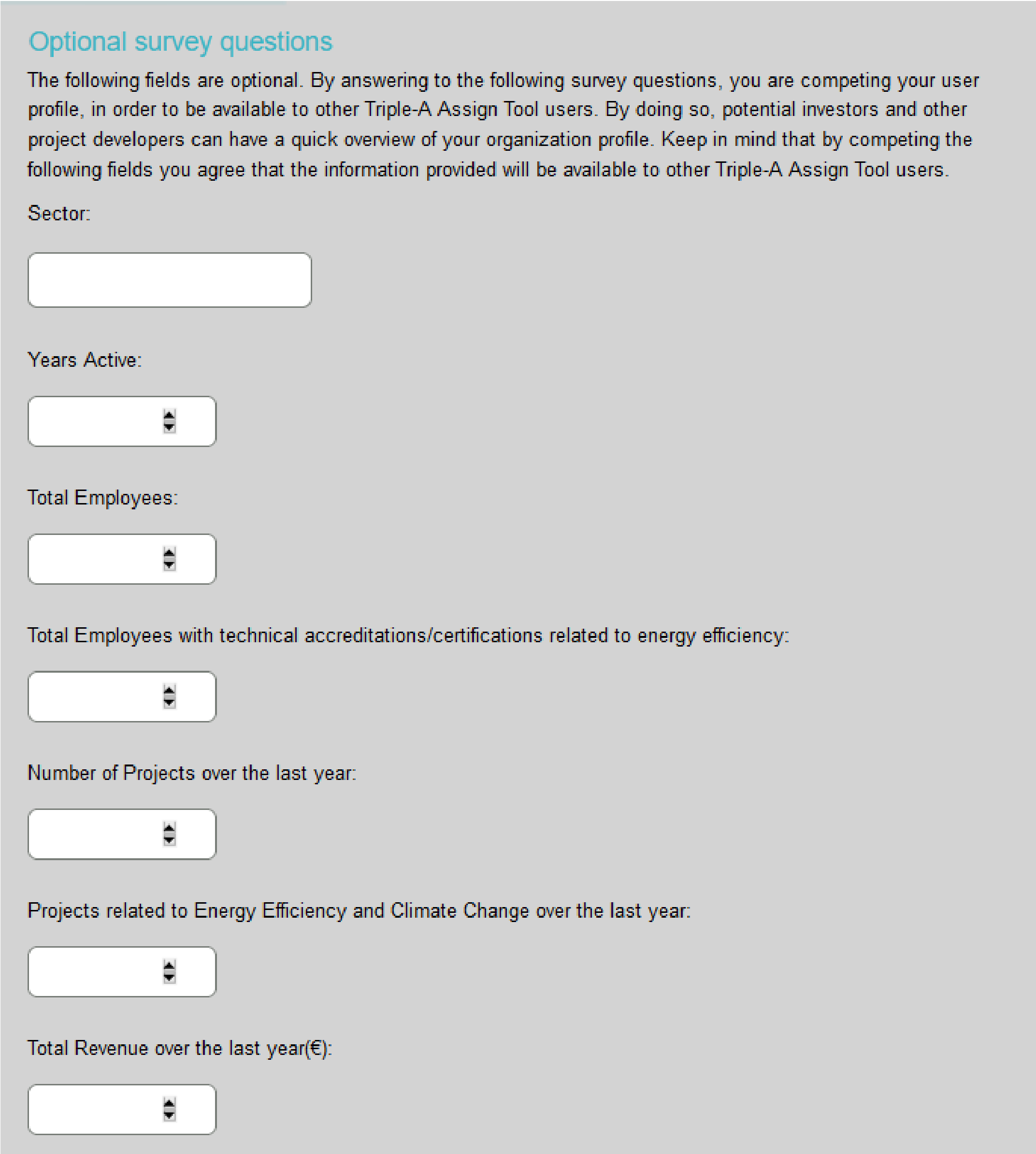


Figure 5: Triple-A Tools - Optional Survey Questions for Companies/ Project Developers

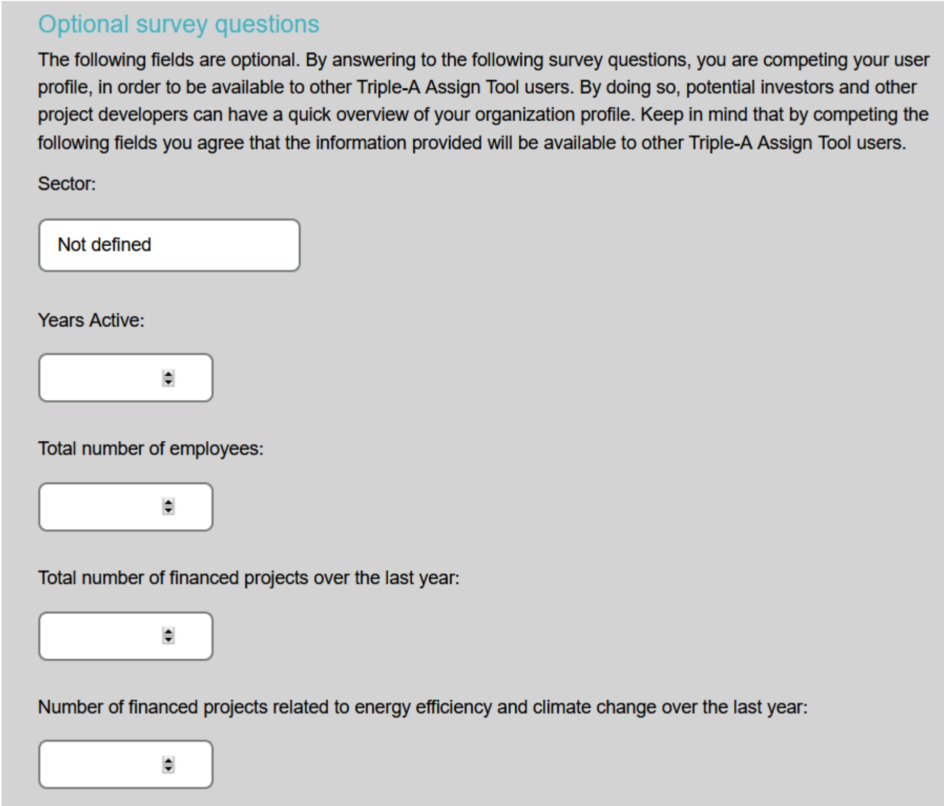


Figure 6: Triple-A Tools - Optional Survey Questions for Financing Bodies

The incorporation of survey questions for the technical and financial profiles of users' organisations aims to build trust between financing bodies and companies/ project developers. The user profiles are visible to other Triple-A users. For example, an investor has access to the profile of a project developer, acquiring supporting information for the underwiring procedure. Vice versa, a project developer that receives a financing proposal from an investor, can view the investor's profile. As a result, the Triple-A Tools supports decision-makers to build trust and proceed confidently to the decision-making process.

The user profile surveys are listed below:

Project Developers / Company

- Name
- Sector
- Years in activity
- Number of employees in total
- Number of employees with technical accreditations/certifications related to energy efficiency and climate change
- Any company certifications related to energy efficiency and climate change
- Total number of projects over the last year
- Number of projects related to energy efficiency and climate change over the last year
- Total revenue over the last year
- Company EBITDA over the last year
- Net profit over the last year
- Net debt over the last year
- Financial reports reviewed by a third party available

Financing Bodies

- Financing Body details and credentials
- Are you a public or private entity? If applicable, are you a physical person or a legal person?
- Sector
- Years in activity
- Total number of employees
- Total number of financed projects over the last year
- Number of financed projects related to energy efficiency and climate change over the last year

3.3 Login into Triple-A Tool

In order to log into the system, the user needs to fill in a valid username and password credentials in the corresponding fields and hit the "**Login**" button. In case the user types in the wrong credentials, the software will deny access to the other available functionalities.

Please note that the number of attempts is unlimited. The system does not lock the user account in case several attempts are made using the wrong password.

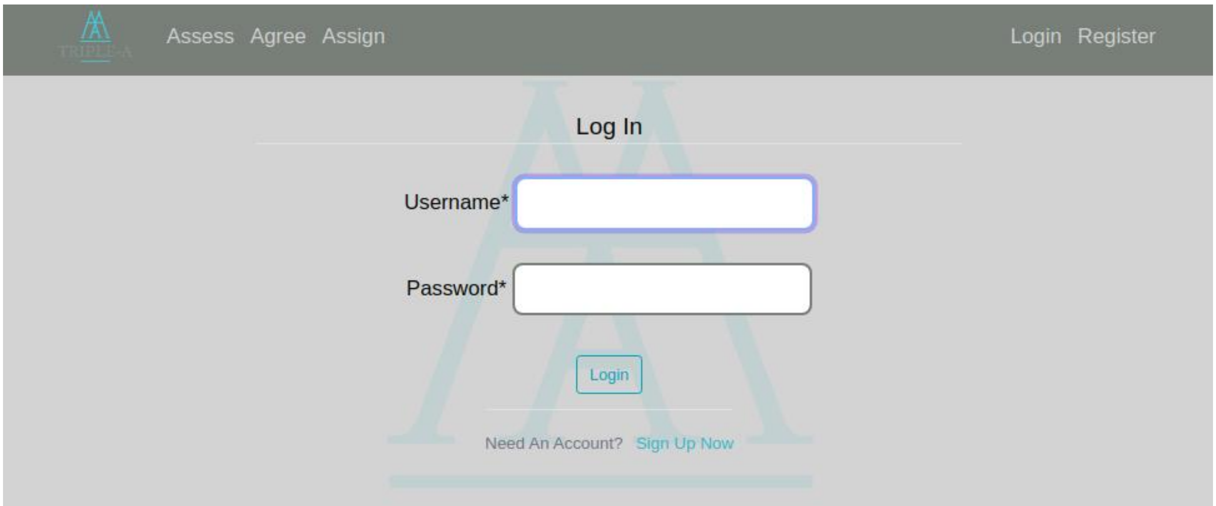


Figure 7: Triple-A Tools - Login Screen

Triple-A project is committed to ensuring the security and protection of the processed personal information and providing a compliant and consistent approach to data protection according to GDPR principles.

In case the user has any queries related to Triple-A compliance to GDPR, the user is invited to send an e-mail to contact@aaa-h2020.eu.

4 Managing the Triple-A Assess Tool

4.1 Basic Information

The Triple-A Assess Tool refers to the first step of the Triple-A methodology. The user may access the Triple-A Assess Tool either through the Assess icon on the homepage or through the navigation bar on the top of the page. By clicking on one of these options, the user is transferred to the homepage of the Triple-A Assess Tool. This page includes a short description of the Triple-A Assess Tool and methodology. The user should click the "**Get Started**" button to start the Assess Tool and agree that the project data will be saved to the Triple-A Tools database and visible to other users.

The Triple-A Assess Tool consists of two phases. In the first phase, the energy efficiency investments are checked in terms of EU taxonomy compliance. In the second phase, the aggregated risk of the candidate investments is calculated.

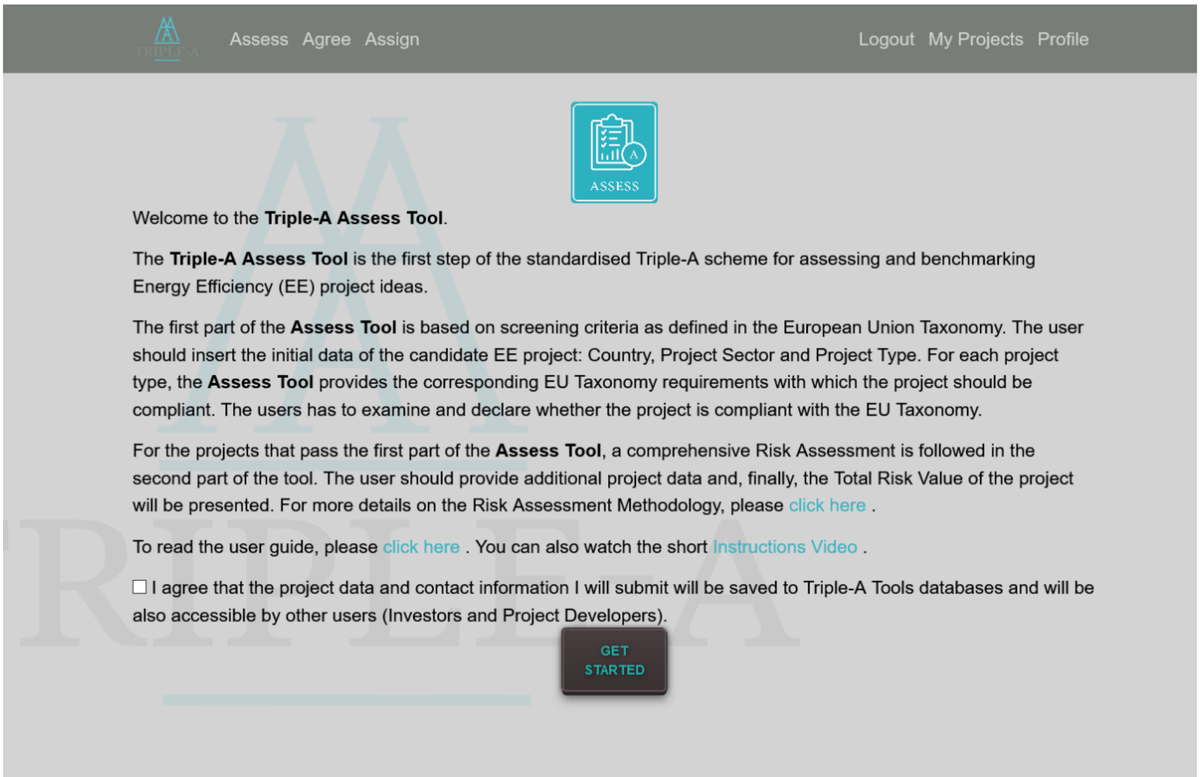


Figure 8: Triple-A Assess Tool - Homepage

4.2 Initial EE Project Information

On the first page of the Triple-A Assess Tool, the user should fill in the basic information of the candidate energy efficiency project. More specifically, it is required to insert the **project name / type** and the **country** in which the project is to be developed, as well as to select one of the five sectors:

- Buildings
- Manufacturing
- Transportation
- District Energy Networks
- Outdoor Lighting

After having inserted all the necessary information about the project, the user should click on the "**Submit**" button in order to proceed to the next step.

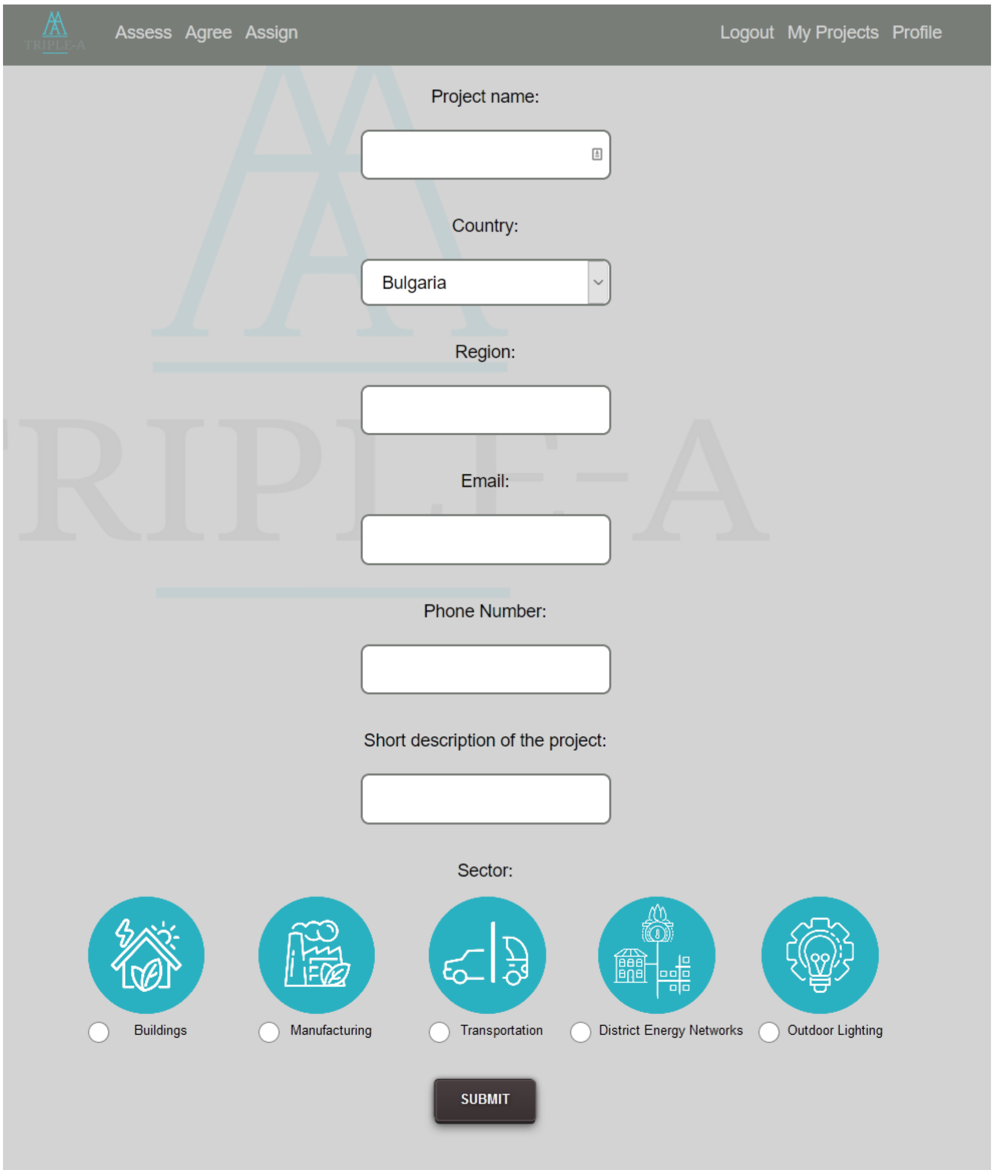


Figure 9: Assess Tool - Initial Project Information Page

4.3 The EU Taxonomy Compliance Check

The first phase involves assessing whether the EE project is EU taxonomy[4] eligible, taking into account the relevant Technical Screening Criteria. As long as the investment is located within the EU Member States, it is assumed that the Do No Significant Harm (DNSH) are met, including the appropriate management of the associated social risks. The basic concept in this step is that the user should declare whether the EE project fulfils a series of Taxonomy criteria or not. The indication of whether the project is Taxonomy compliant or not will be included in the project's details and will be visible to investors in the Assign Tool. Depending on the sector that was selected in the previous step, this phase may be dimly differentiated. Except for the Outdoor Lighting sector, all sectors include an intermediate step that requires the definition of some additional information about the **project subsector and/or category**.

4.3.1 Project Subsector / Category Selection

As mentioned above, most sectors require the user to provide some additional information before presenting the EU Taxonomy criteria eligibility checklist. This further classification of the projects is necessary because each project category and subsector combine different Taxonomy criteria. In case that a project belongs to the Outdoor Lighting sector, this intermediate phase is skipped. Therefore, the user is immediately transferred to the EU Taxonomy checklist screen. In the following paragraphs, the available options for each sector are presented.

4.3.1.1 Buildings Sector

For projects of the Buildings sector, the user should select the **project subsector** (residential / non-residential) and at least one **project category**.

It is important to note that multiple project types could be selected, thus not restricting the user to include only projects which belong to a specific project type.

[4] EU Taxonomy Regulation (https://eur-lex.europa.eu/eli/reg/2020/852/o)

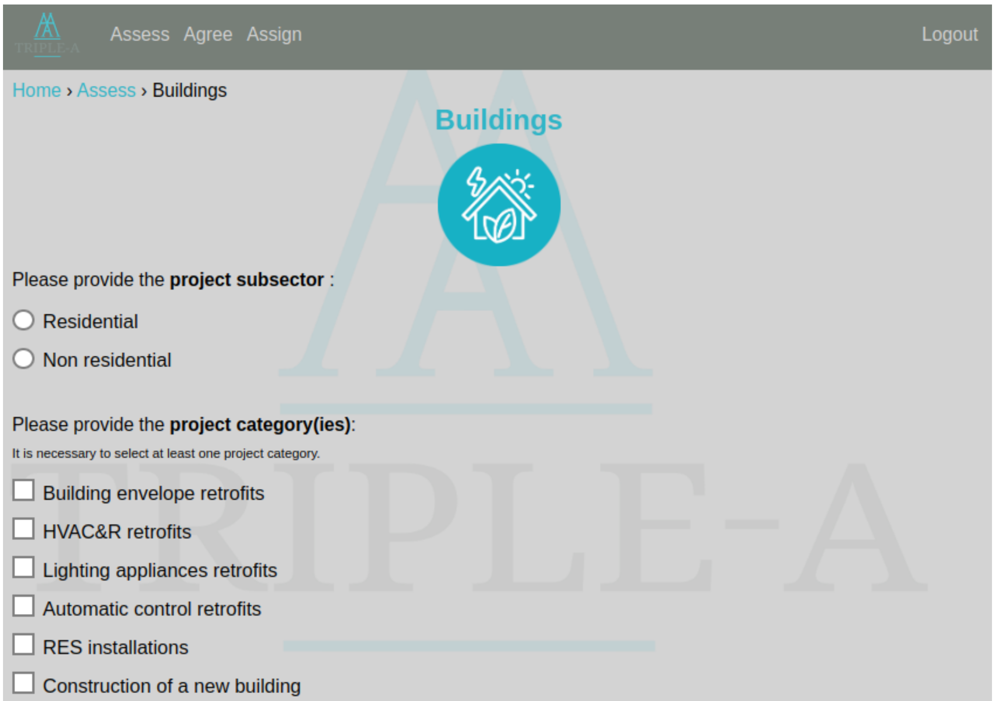


Figure 10: Assess Tool - Buildings Sector Page

4.3.1.2 Manufacturing Sector

For projects of the Manufacturing sector, the user should select the **project subsector** of the investment. Therefore, the user should choose one of the following subsectors:

- Hydrogen
- Iron and Steel
- Aluminium
- Cement
- Low carbon technologies
- Fertilisers and Nitrogen
- Other organic basic chemicals
- Other inorganic basic chemicals

Figure 11: Assess Tool - Manufacturing Sector Page

4.3.1.3 Transportation Sector

For projects of the Buildings sector, the user should select the **project subsector** of the investment between public transport and passenger cars and light commercial vehicles.

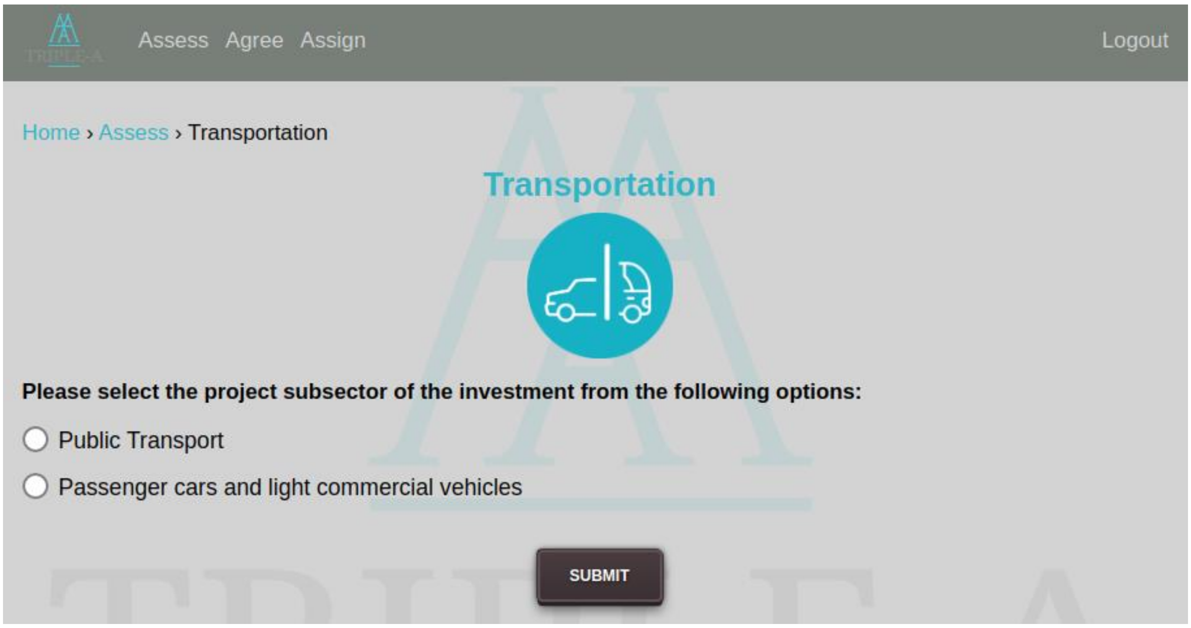


Figure 12: Assess Tool - Transportation Sector Page

4.3.1.4 District Energy Networks Sector

For projects of the District Energy sector, the user should select the **project type** of investment.

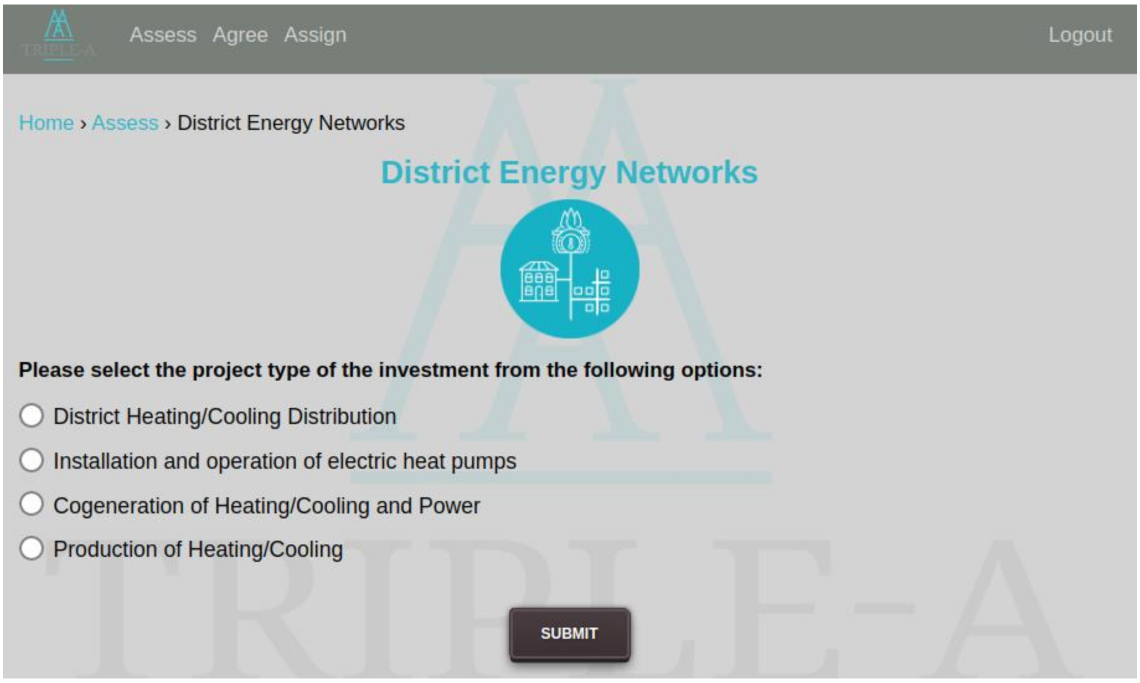


Figure 13: Assess Tool - District Energy Networks Sector Page

Therefore, the user should select one of the following subsectors:

- District Heating / Cooling Distribution
- Installation and operation of electric heat pumps
- Cogeneration of Heating / Cooling power
- Production of Heating / Cooling

4.3.2 EU Taxonomy Criteria

After having imported all the project-specific information, the user should select whether the investment is EU Taxonomy eligible. The process for the selection is the following:

Depending on the project sector and the additional information is given (Project Type, Project Category, etc.), an EU Taxonomy list appears, including the thresholds that need to be met by the investment and some explanations on the requirements, such as the metrics of each threshold.

Then, the user should carefully check if the investment fulfils all the thresholds. In case that all the requirements are met, then the **Yes** checkbox should be selected, stating that the investment is Taxonomy compliant.

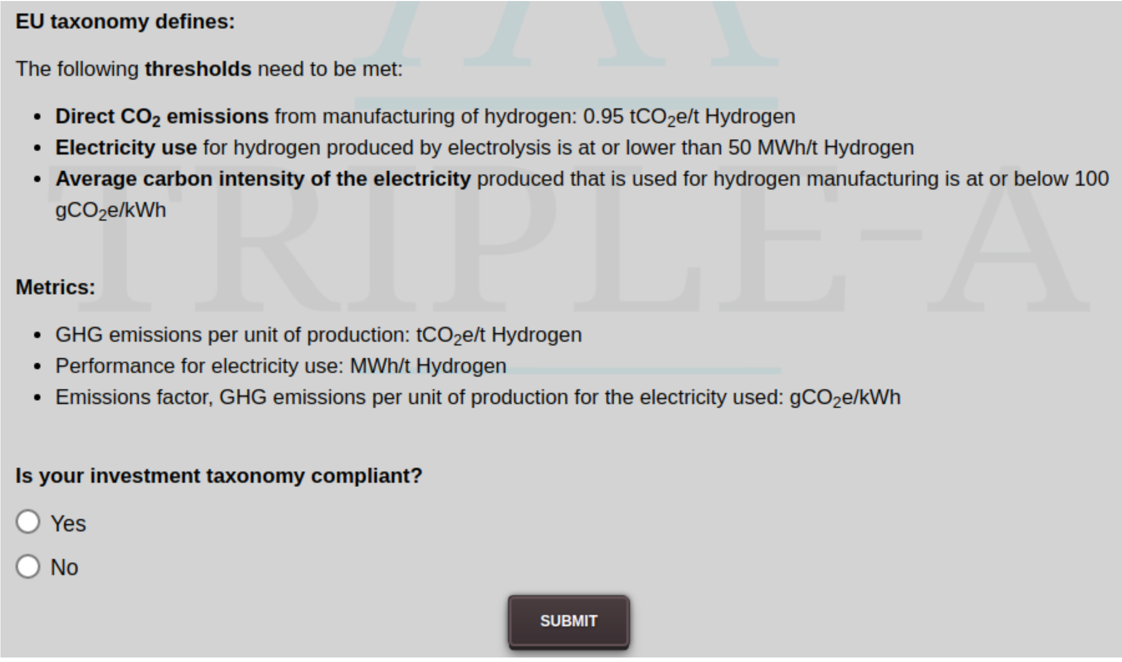


Figure 14: Assess Tool - EU Taxonomy Checklist

4.4 The Risk Calculation step

Under this step, the Assess Tool calculates the aggregated risk of the investment. The user is asked to answer a series of project-specific questions, which are taken into consideration for the aggregated investment risk calculation.

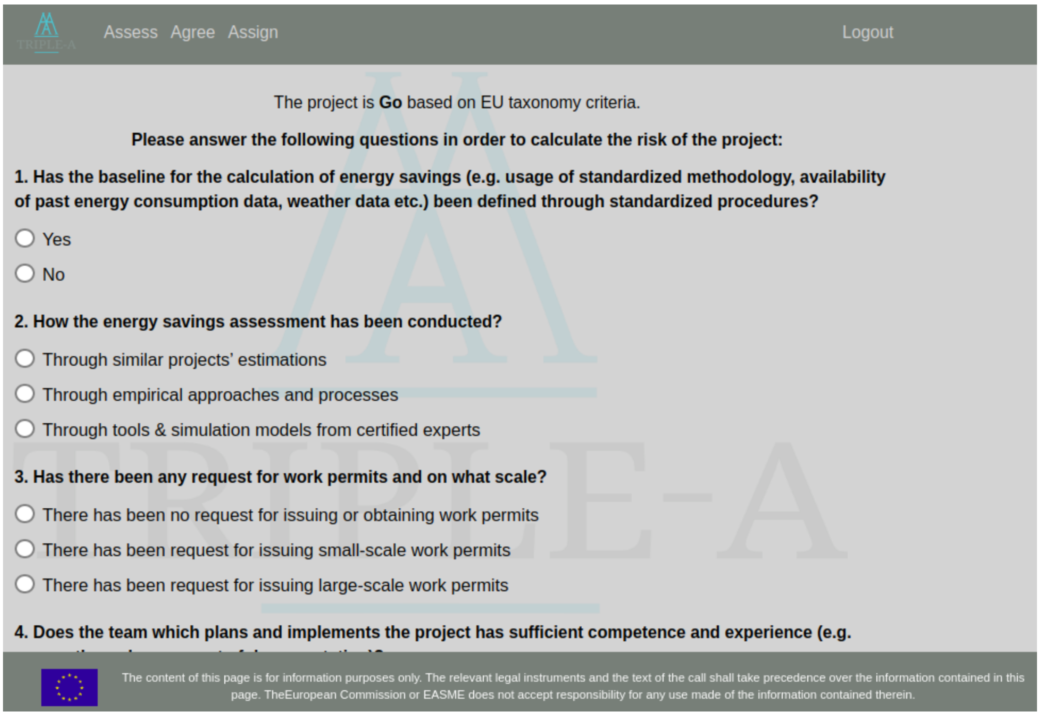


Figure 15: Assess Tool - Project Risk Q&A section

Finally, the Assess Tool calculates the risk per factor, as well as the aggregated risk of the investment.

- **Financial risk** is related to the creditworthiness of the applicant for the loan/financing.
- **Behavioural risk** is related to the rebound effect that can exist in the context of the inspected EE investment.
- **Energy Market & Regulatory risk** is related to the energy prices and energy taxes volatility of the country in which the investment takes place and the request for issuing work permits that may exist in the context of the inspected project.
- **Economic risk** category is related to the economic environment of the country that the investment takes place.
- **Technological, Planning and Operational risk** is related to the technical complexity, the initial savings assessment, the implemented equipment, the project design, and the Operation & Maintenance of the inspected project.

4.5 Assess Tool Results

After completing the EU Taxonomy compliance and Risk Assessment, the user is prompted with the procedure results, as shown in Figure 16.

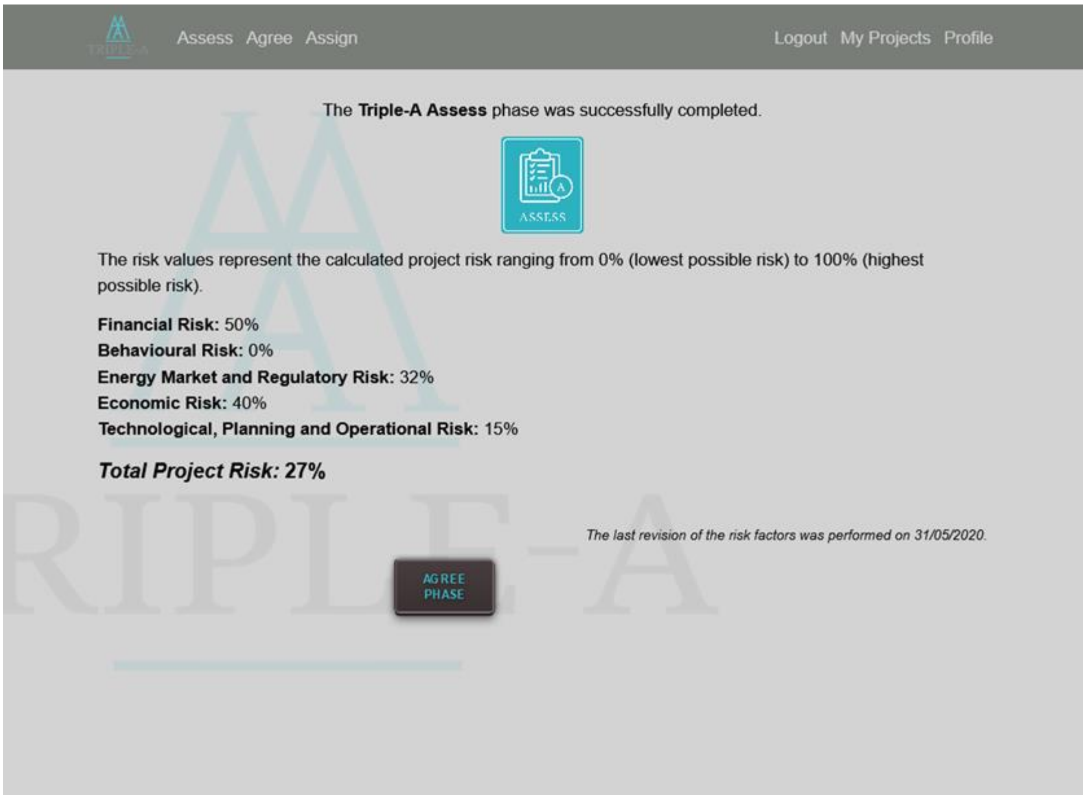


Figure 16: Assess Tool - Results

5 Managing the Triple-A Agree Tool

5.1 Basic Information

The Triple-A Agree Tool refers to the second step of the Triple-A methodology. The user could access the Triple-A Agree Tool either through the Agree icon on the homepage, through the navigation bar on the top of the page, or by hitting the button "**Agree**" on the Assess Tool's results page (Figure 16). By clicking on one of these options, the user is transferred to the homepage of the Triple-A Agree Tool. The user should click the "**Get Started**" button to start the Agree Phase.

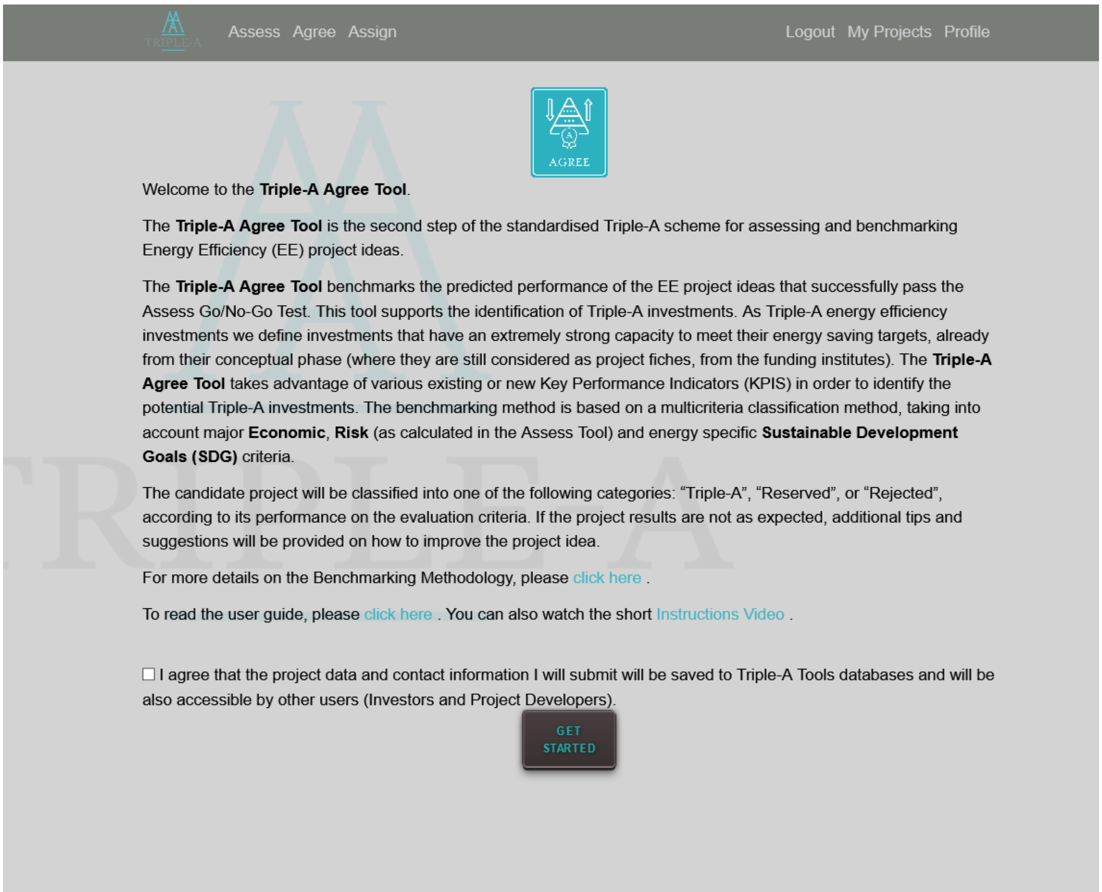


Figure 17: Agree Tool - Homepage

5.2 Input Required

The user starts the Triple-A Agree Tool phase by clicking on the "**Get Started**" button or hitting the button "**Agree**" on the Assess Tool's results page. Then, the user is navigated to a screen, where all the necessary project-specific data should be filled in. At first, the user should enter the Project Name. If the user has landed directly from the Assess Tool while assessing a specific project, the project name is automatically loaded so they could proceed with the same project to Agree Tool.

The necessary information could be divided into two main categories:

- Project Costs
- Savings

In terms of cost, the user should provide the **total investment cost** of the project, as well as the **annual operating cost**.

In the savings category, there are three fields:

- electricity,
- natural gas, and
- other fuels.

If the investment results in savings in more than one category, the user should fill in all the corresponding fields. In case that the "**other fuels"** option is selected, the user should also fill in the fuel price.

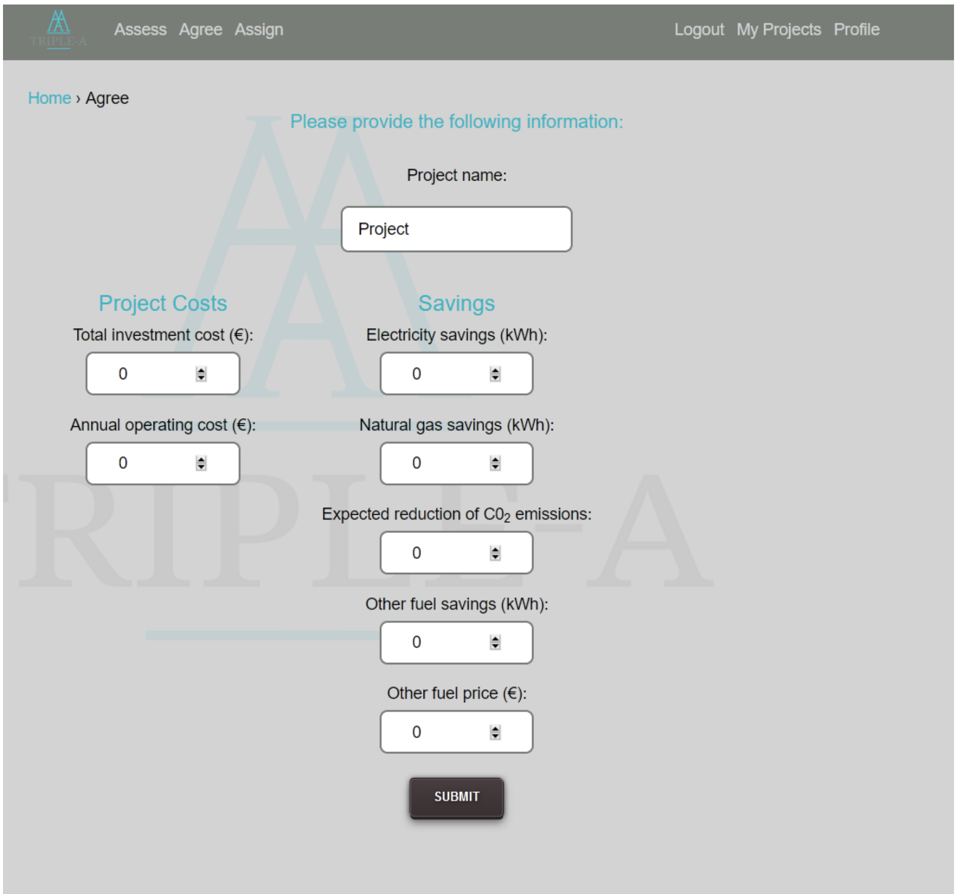


Figure 18: Agree Tool - Input Page

5.3 Criteria and Weights Selection

In this stage, the user selects which criteria will be used for the assessment of the investment. The classification of the project is made based on four criteria:

- Financial Indicator
- Cost Effectiveness
- Triple-A Aggregated Risk
- Sustainable Development Goals (SDG) Criteria

The user may select the financial indicator used, either the **Net Present Value,** the **Discounted Payback Period,** or the **Internal Rate of Return**.

The financial indicators are calculated based on the following parameters:

- Electricity and Natural Gas Prices: Eurostat statistics -revised every 6 months (latest revision: 2020 1st six-month period)
- Discount Rate: 4% (used in Net Present Value and Discounted Payback Period)

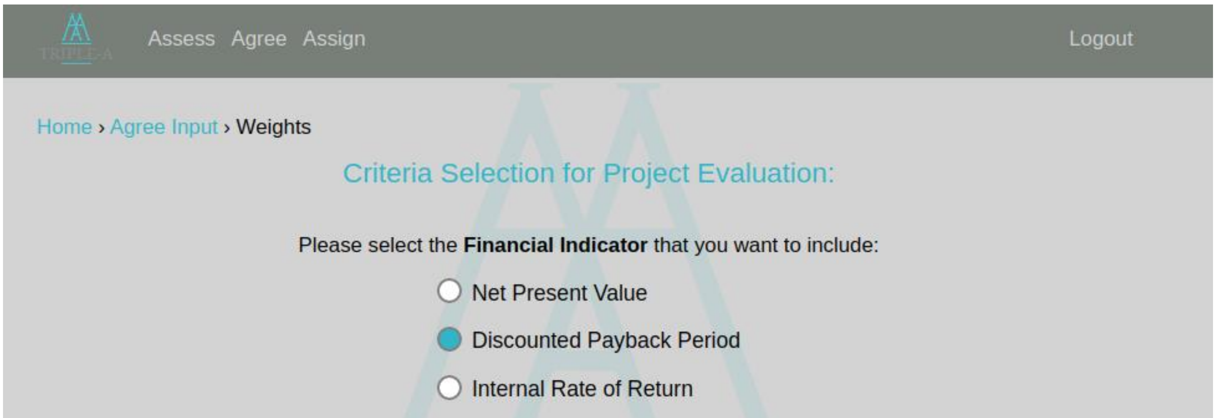


Figure 19: Agree Tool - Financial Indicator

After the user has selected which financial indicator will be used as the fourth criterion in the Triple-A Agree classification process, the final step includes the definition of the weight for each criterion. Therefore, for each criterion, there is a dropdown list, and the user should select the importance of each factor in a 5-degree scale with the following options:

- Very High
- High
- Medium
- Low
- Very Low

The criteria that are considered more significant should be rated with higher importance to affect the result to a greater extent.

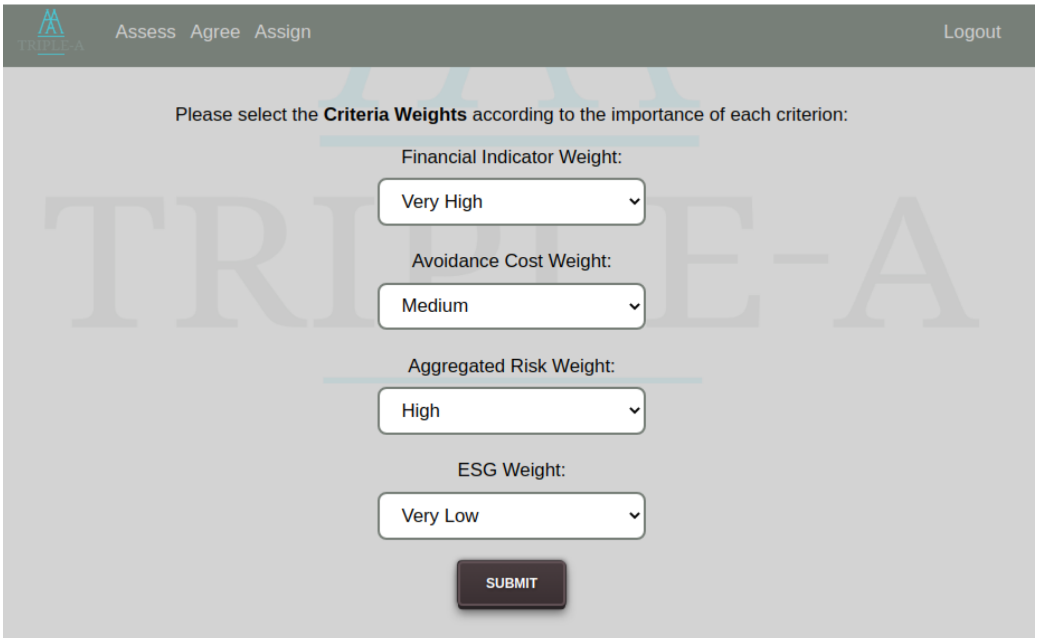


Figure 20: Agree Tool - Weights Selection

5.4 Agree Tool Results

After the procedure's completion, the user is notified of the emerged benchmarking class of the project, as shown in Figure 21. An analytic breakdown of the project's data and KPIs results are presented.

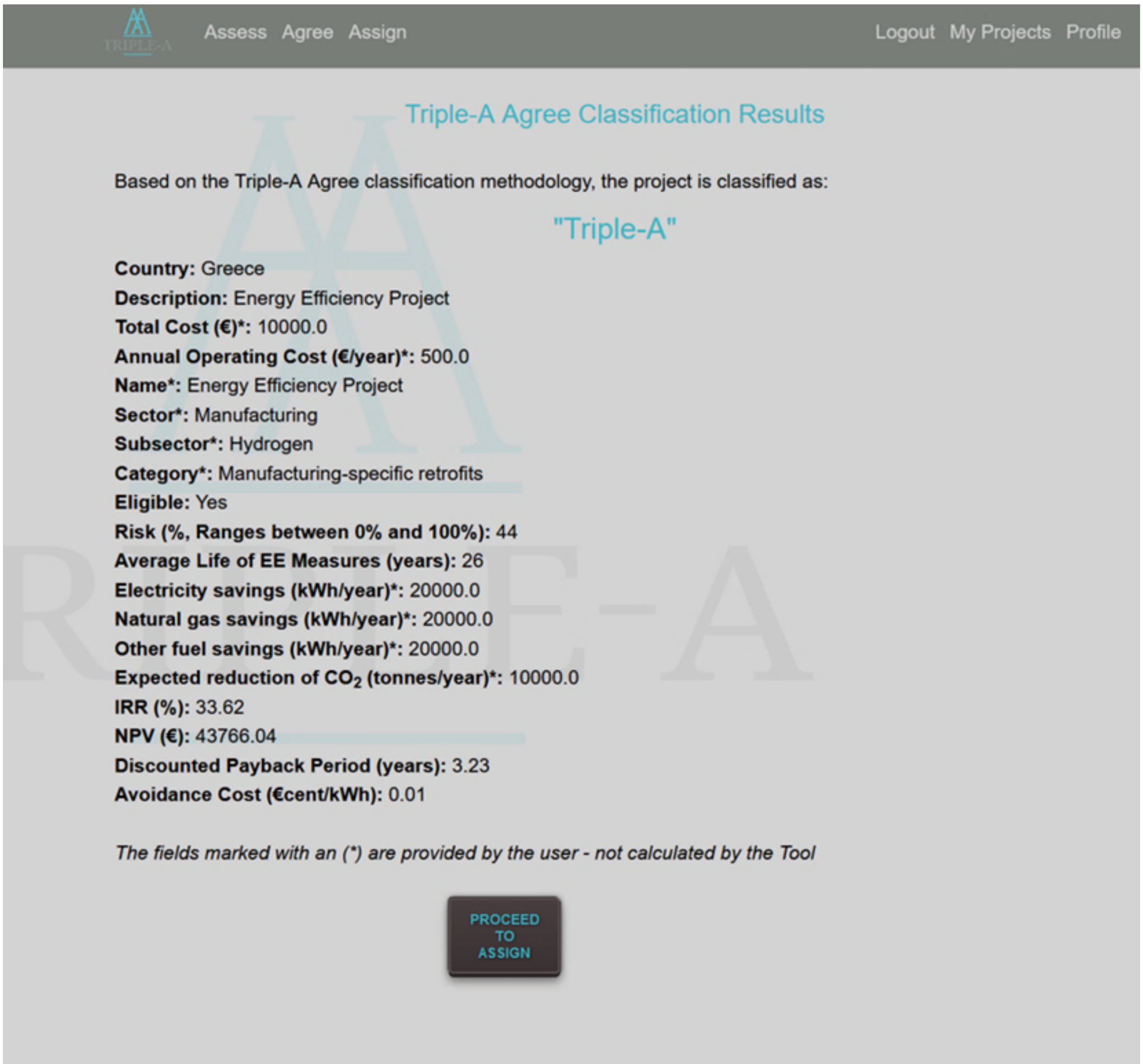


Figure 21: Agree Tool - Results

6 The Triple-A Assign Tool

6.1 Basic Information

The Triple-A Assign Tool is a multidimensional platform consisting of numerous interfaces according to the different beneficiaries and EE financing instruments. The targeted beneficiaries of the Triple-A Assign Tool are, on the one hand, financing bodies that are interested in investing in the EE sector. These bodies include commercial or green investment banks, investment funds (or managers), Unit Investment Trusts, developers and managers of financial products, and other relevant types of financers that search for a profitable portfolio of Triple-A projects to finance. On the other hand, the Assign Tool is oriented towards EE companies and project developers, encompassing energy companies, ESCOs, credit professionals, management investment companies, and construction companies that need to find capital to implement their projects.

Financing bodies benefit from the Assign Tool as it provides them with access to a pool of profitable, pre-evaluated Triple-A projects. Stakeholders will be able to filter and select projects according to criteria that fit their needs. Numerous project characteristics are laid out in a user-friendly interface, such as the project's benchmarking rating, country, sector, enabling the user to examine potential proposed investments. Also, projects could be aggregated by investors to create a Green Bond portfolio, while they can explore a database of Green Bonds that have been published to the Tool. Financers could view the companies and the projects included in the bond, check characteristics of the Green Bond, and further communicate with the Green Bond issuer.

As far as project developers are concerned, they will be notified of financing requests from potential investors, along with details regarding the proposed financing schemes and investor's contact data.

6.2 Financing Bodies Interface

From the Assign Tool Homepage Tool (Figure 22) for Energy Efficiency Companies/ Project Developers, users could get directed into the following interfaces and perform the actions described below.

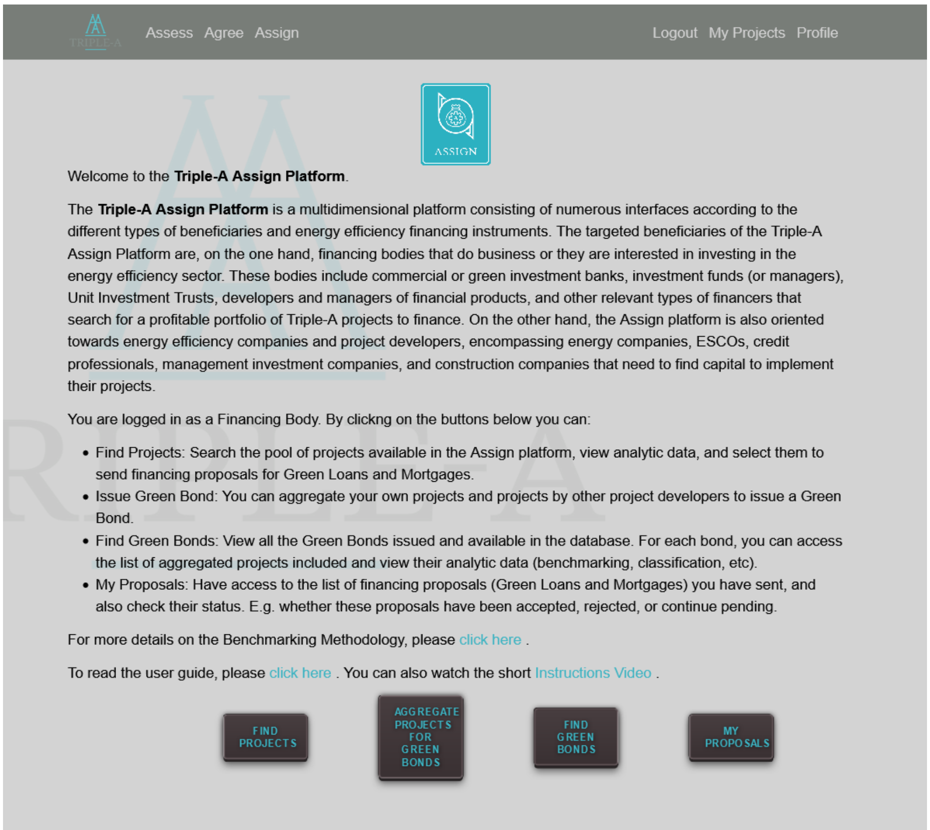


Figure 22: Assign Tool - Homepage for Financing Bodies

6.2.1 Find Projects

In this interface, financing bodies could search the available pool of projects in the Assign Tool, view the analytic data, and select them for sending financing proposals for Green Loans and Mortgages.

The page provides a table listing all available projects in the Assign Tool (Figure 23). The tables provide the following detailed information regarding the projects shown:

- Project Name
- Country
- Sector
- Region
- Sector
- Subsector
- Description
- Project Owner
- E-mail
- Phone Number
- Total Investment Cost
- Annual Operating Cost
- Electricity Savings
- Natural Gas Savings
- Other Fuel Savings
- Net Present Value
- Discounted Payback Period
- Internal Rate of Return
- Total Risk
- Expected Reduction of CO_2 emissions
- Avoidance Cost
- Project Rating

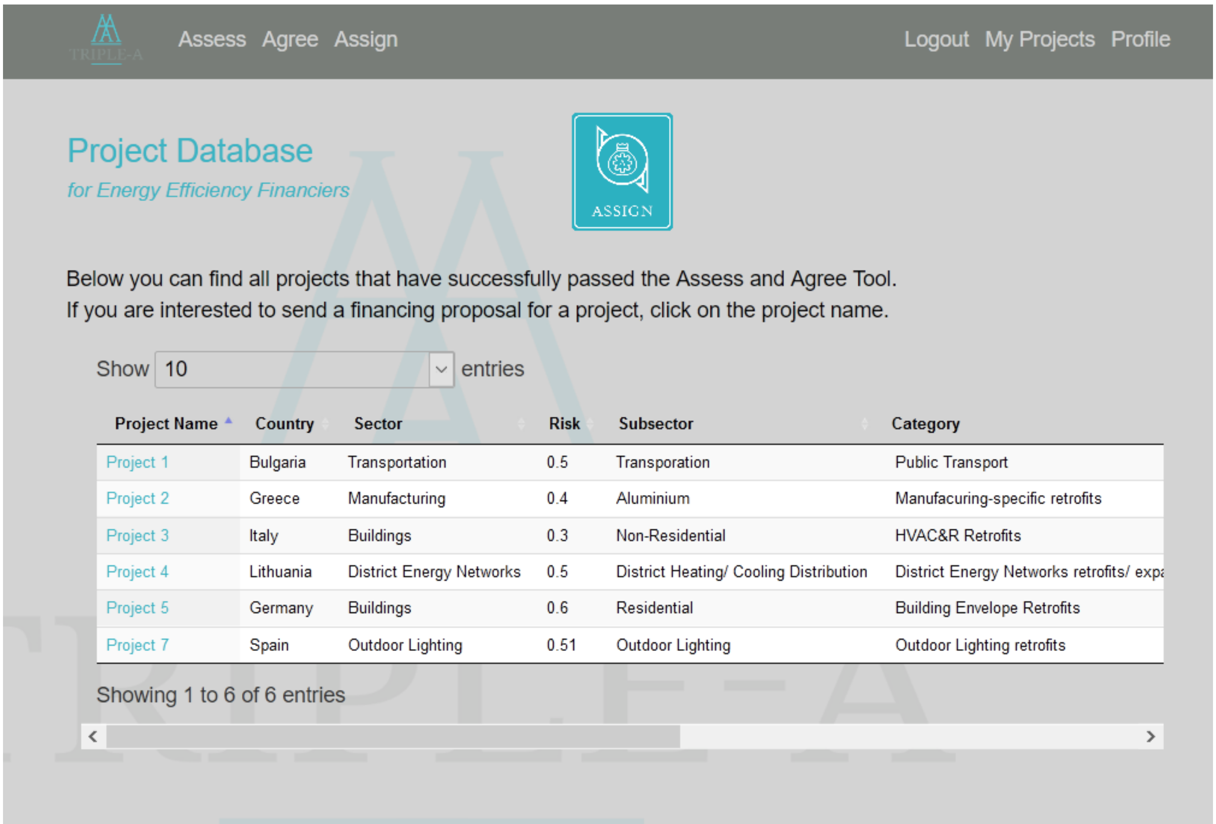


Figure 23: Assign Tool - Project Database

Each project name presented in the Table is a hyperlink. When clicked, the user is directed to the finance proposal submission interface for the selected project (Figure 24). The interface enables the financer to submit a financing proposal for a project and set the preferred loan parameters. The platform accepts any type of financing proposal, e.g., the investor is not obliged to cover the project's total cost. They could partially finance the project and choose the preferred percentage of leverage.

The financing proposal is submitted through a form that requires the following parameters:

- Type of financial product (Green Loan/ Mortgage)
- Interest Rate (%)
- Amount (€)
- Term (years)

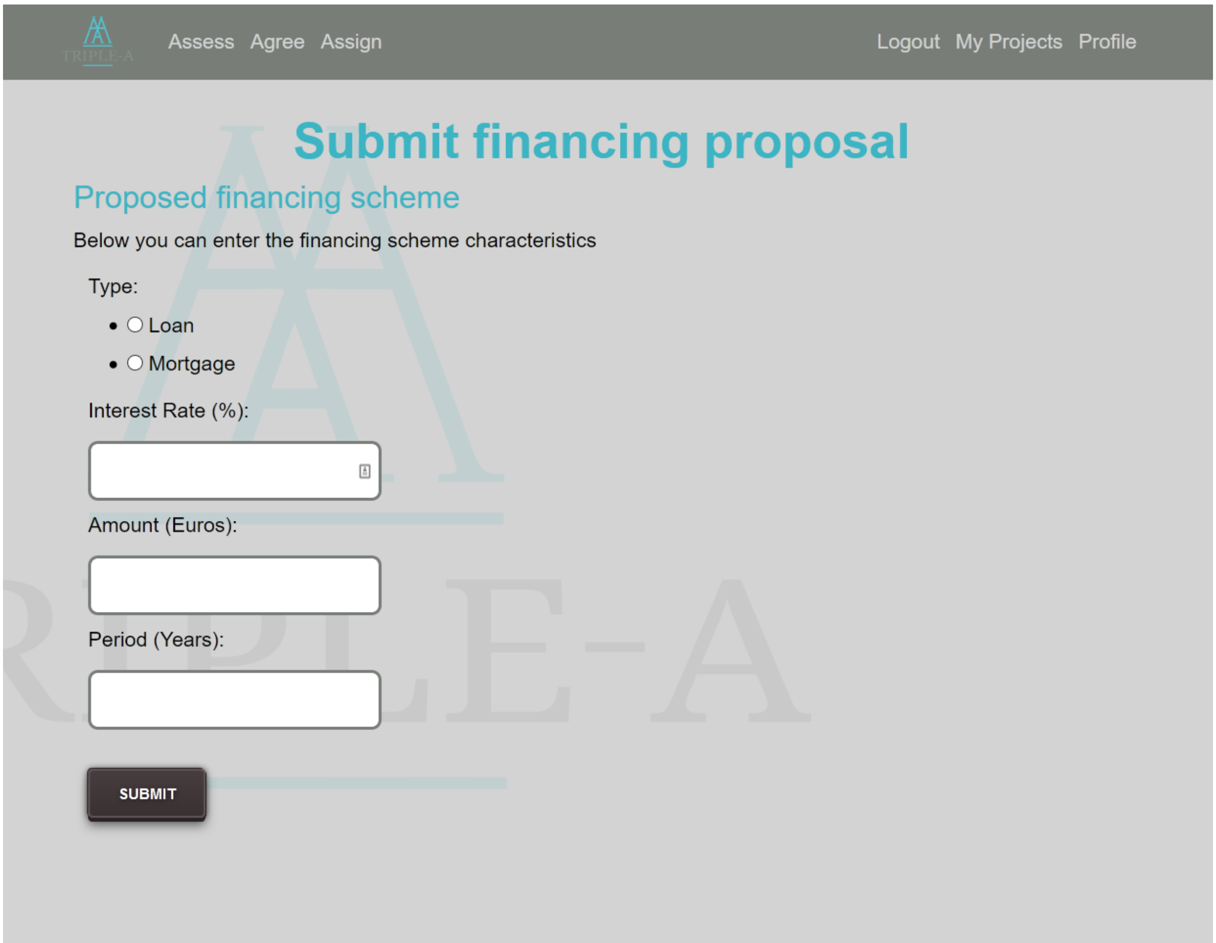


Figure 24: Assign Tool - Financing Proposal Form

Once the financing proposal form is successfully filled and submitted, the user is redirected to a confirmation page. From this point, the user could navigate directly back to the "**My proposals**" interface (See Section 6.2.3) by clicking on the respective button (Figure 25).

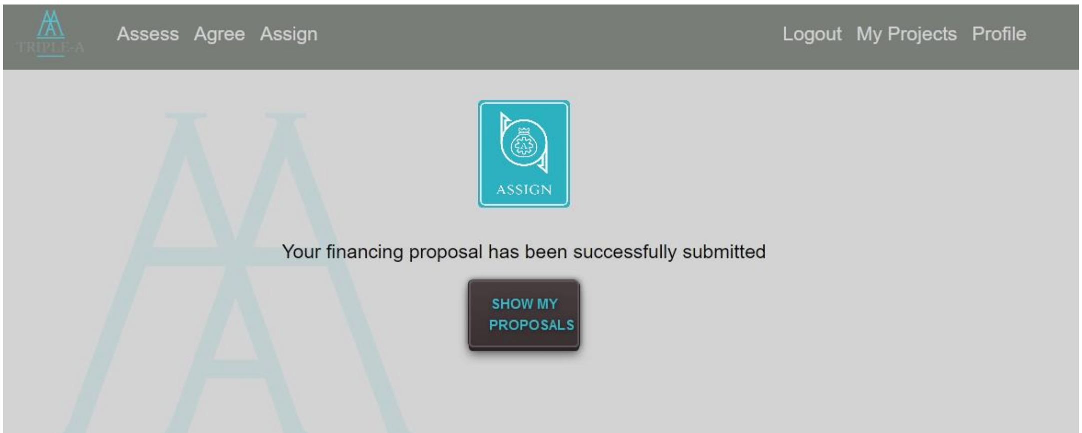


Figure 25: Agree Tool - Proposal Submission Confirmed

6.2.2 Aggregate Projects

This is a dedicated interface for investors who opt to aggregate projects and create a portfolio to proceed to a Green Bond issuance underwriting procedure. Users are able to search for bankable, low-risk projects or projects with similar ratings and similar financial or technical characteristics that have successfully passed the Assess and the Agree Tool and are included in the Assign Tool.

The interface is divided into two sequential steps.

Step 1

The user can find a table with all available projects in the Triple-A Assign database. The table provides data regarding the project. Each Project Name in the table acts as a hyperlink to the analytic overview of the project (Figure 36). The user could select the projects, via the tables' checkbox functionality, that desire to be included in the bond to be issued.

Step 2

The user should define the parameters of the Green Bond that they want to publish. The parameters are:

- Type of interest (floating rate, fixed)
- Fixed → Percentage (%)
- Floating rate → range: Maximum - Minimum (%)
- Interest period (month, quarter, 6 months, annual)
- Maturity (years)
- Issuer
- Rating
- Rating Agency

Once the user clicks "**Submit**", the request to include the projects to a Green Bond is being sent to the Project Developers of the projects that are going to be included in the bond.

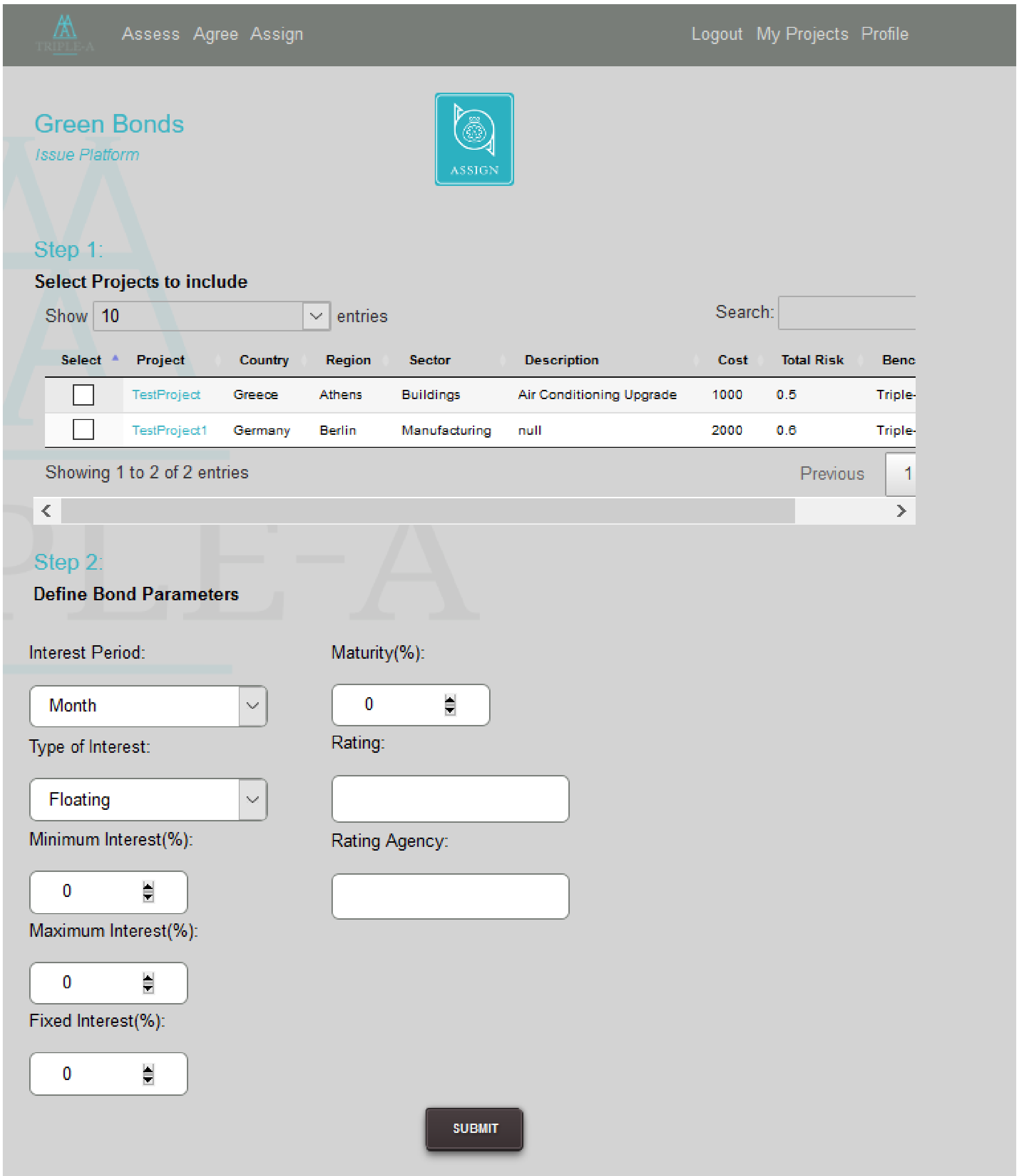
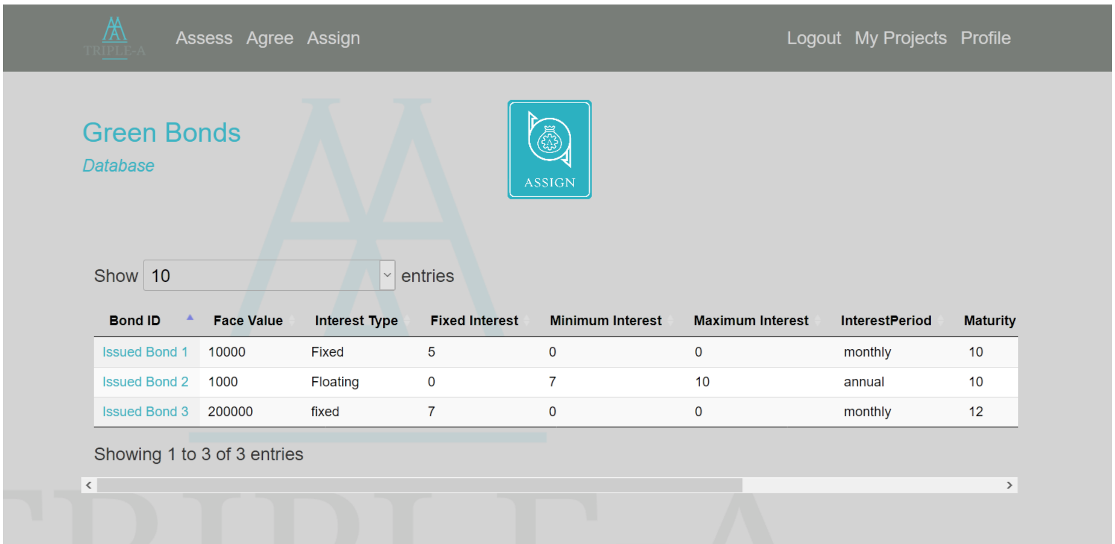


Figure 26: Assign Tool - Green Bonds Issue Interface

6.2.3 Green Bonds Database

Under this section, financing bodies could view a table that includes all the Green Bonds issued and available in the database.



Bond ID	Face Value	Interest Type	Fixed Interest	Minimum Interest	Maximum Interest	InterestPeriod	Maturity
Issued Bond 1	10000	Fixed	5	0	0	monthly	10
Issued Bond 2	1000	Floating	0	7	10	annual	10
Issued Bond 3	200000	fixed	7	0	0	monthly	12

Figure 27: Assign Tool - Green Bonds Database

The table provides detailed information regarding the bond:

- Bond ID
- Face Value (€)
- Type of interest (floating rate, fixed)
- Fixed→ Percentage (%)
- Floating rate→ range (%)
- Interest period (month, quarter, 6 months, annual)
- Maturity (year)
- Issuer
- Rating
- Rating Agency

The Bond ID is a hyperlink that navigates to a dedicated interface, in which all projects included in the Green Bond are presented, along with an analytic breakdown.

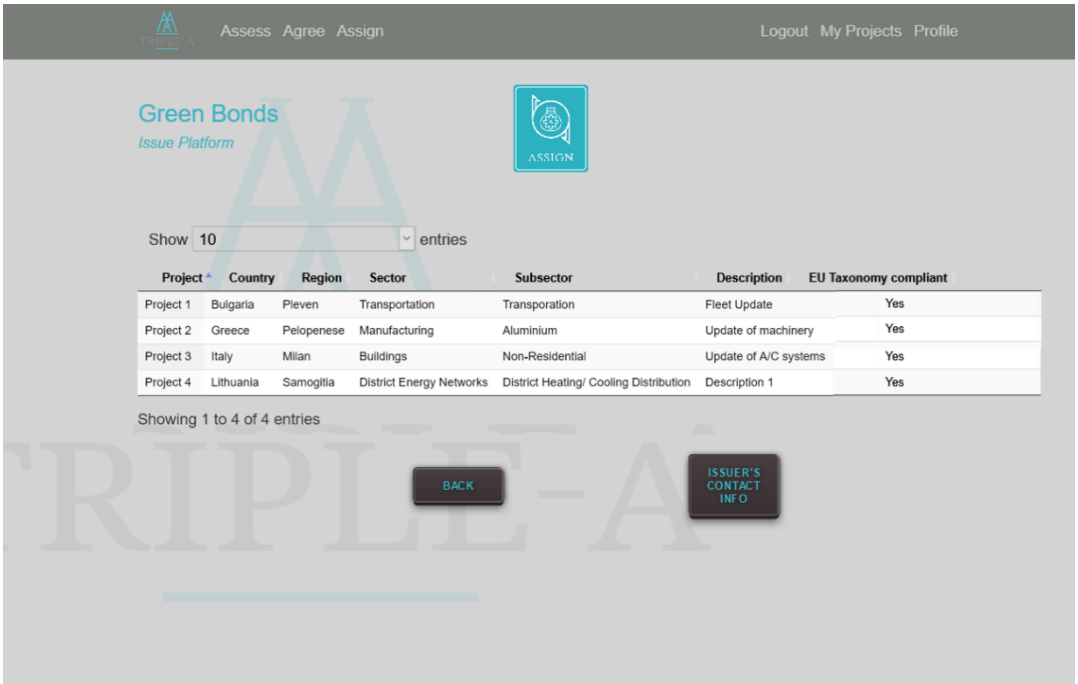


Figure 28: Assign Tool - Green Bond's Projects Breakdown

At this point, the user (Financing Body) could view more information by clicking on the button "**Issuer's Contact Info**".

6.2.4 My Proposals

In this section, financing bodies could access details regarding the financing proposals (Green Loans and Mortgages) they have sent while also check their status, e.g., whether these proposals have been viewed by the respective Company/ Project Developer.

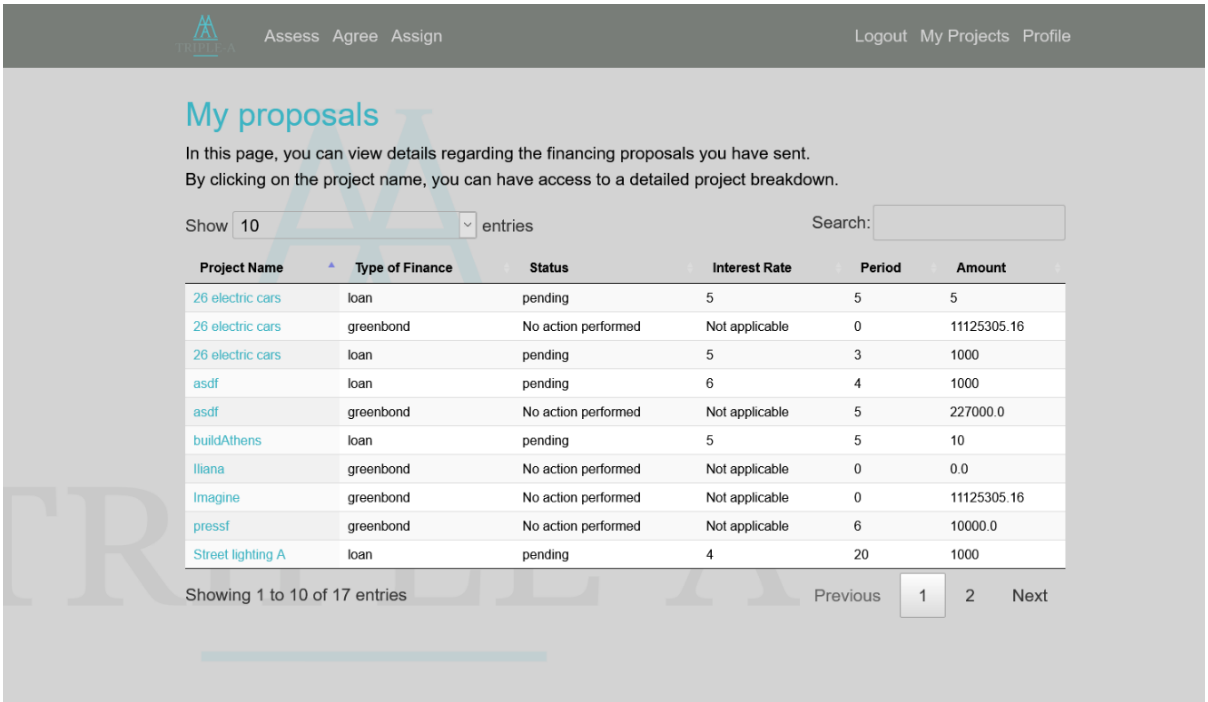


Figure 29: Agree Tool - My proposals

In the "**My proposals**" table, each project name links to an analytic project overview (Figure 36).

6.3 Companies and Project Developers Interface

The homepage of the Assign Tool for Companies and Project Developers is depicted below:

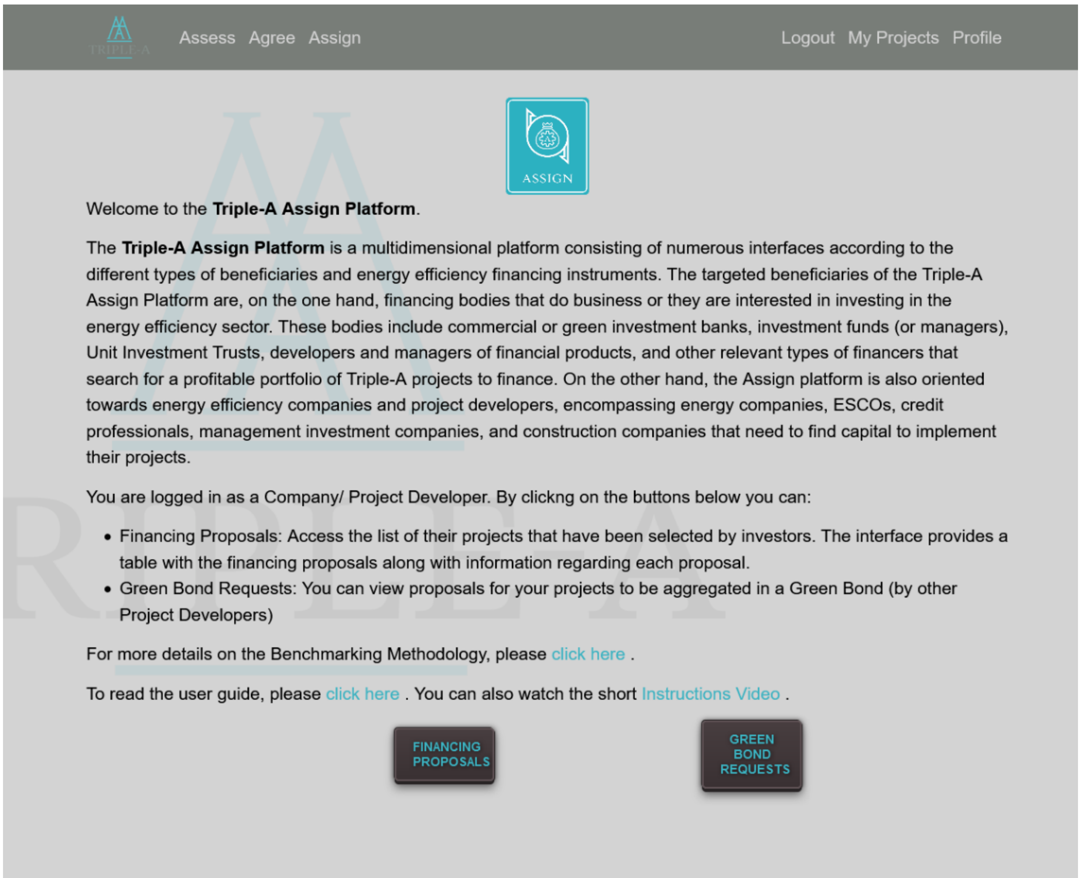


Figure 30: Assign Tool - Homepage for EE Companies / Project Developers

6.3.1 Financing Proposals

In this section, companies & project developers could access the list of their projects that have been selected by investors and received a financing proposal. The interface provides a table with the financing proposals along with information regarding each proposal. The proposals include:

(i) Loan proposals

(ii) Mortgage Proposals

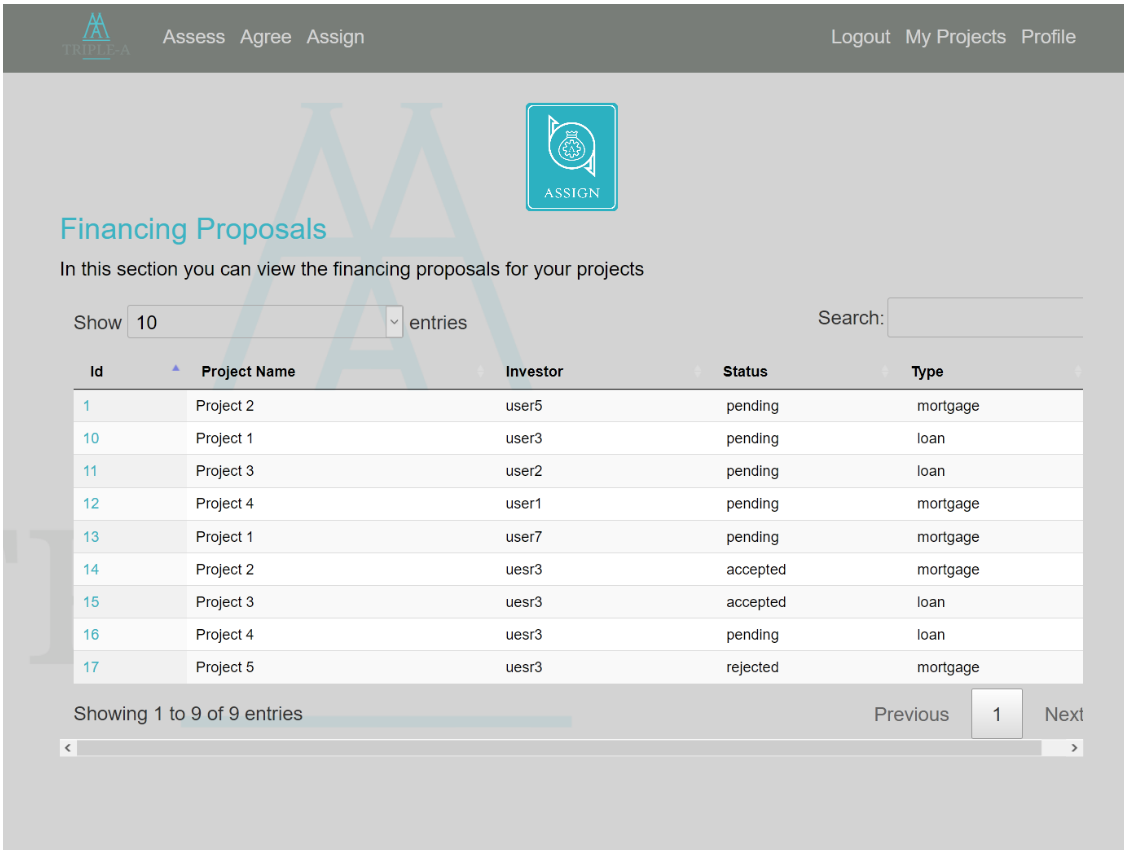


Figure 31: Assign Tool - Financing Proposals Interface for Companies / Project Developers

The table provides data to the user regarding the type and status of the financing proposal.

When clicking the Proposal "**Id**", the user is redirected to the Proposal Overview page. It should be noted that a single project could be part of many proposals, which the project developer could choose.

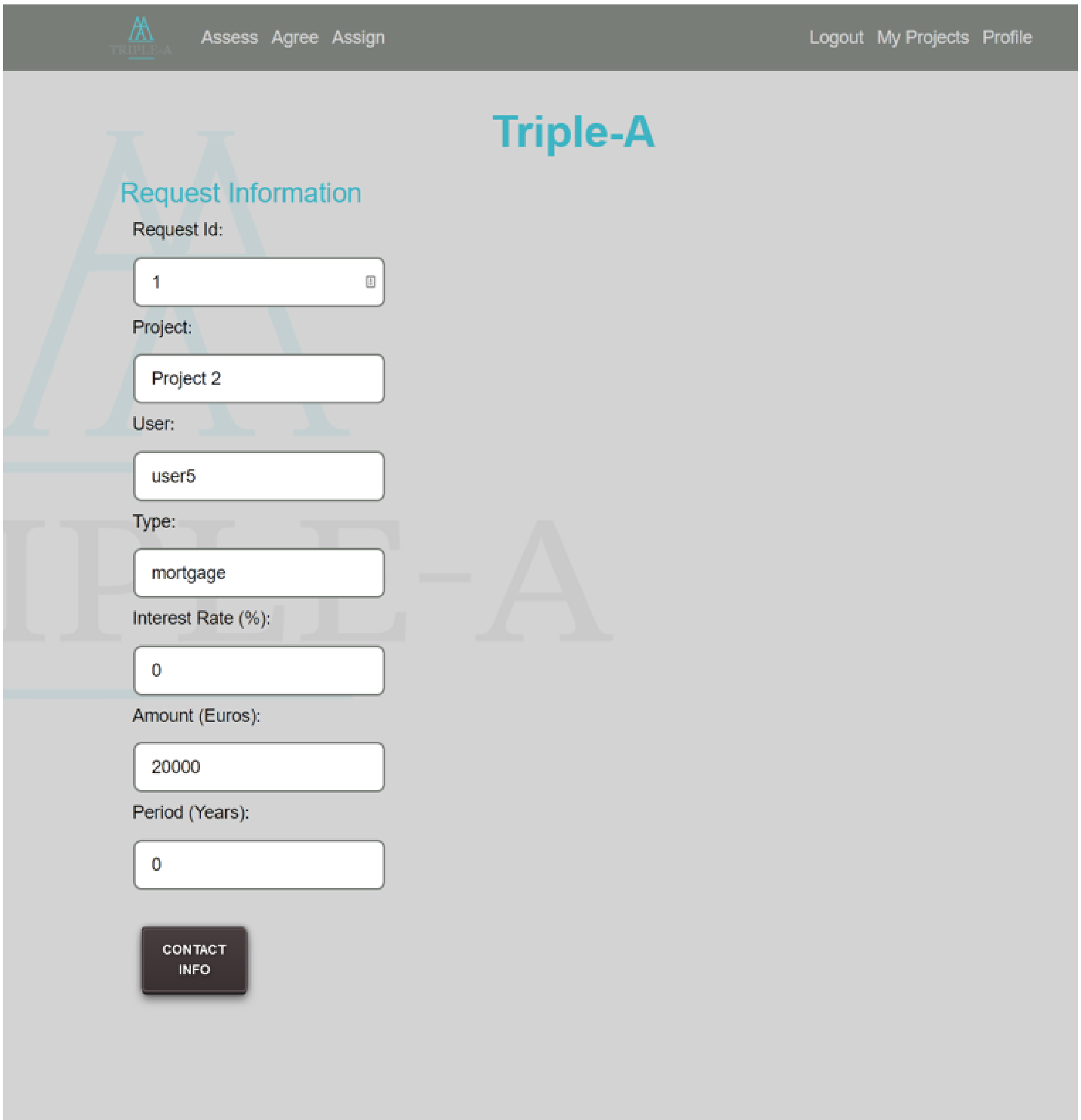


Figure 32: Assign Tool - Proposal Overview

The data presented in this interface include all data submitted by the investor when completing the Financing Proposal form (see paragraph 6.2, section “Find Projects), along with the Investors' username. The interface provides the Project Developer with the option to view the investor's contact information. Please note that the investor gets notified of whether the proposal has been viewed or not. (See paragraph 6.2, section “My proposals”).

6.3.2 Green Bonds Requests

This interface provides a table with requests to include projects in Green Bonds. The Company/ Project Developer could view all the Green Bonds issuance requests that pertain to their projects that have been submitted by other Companies/ Project Developers.

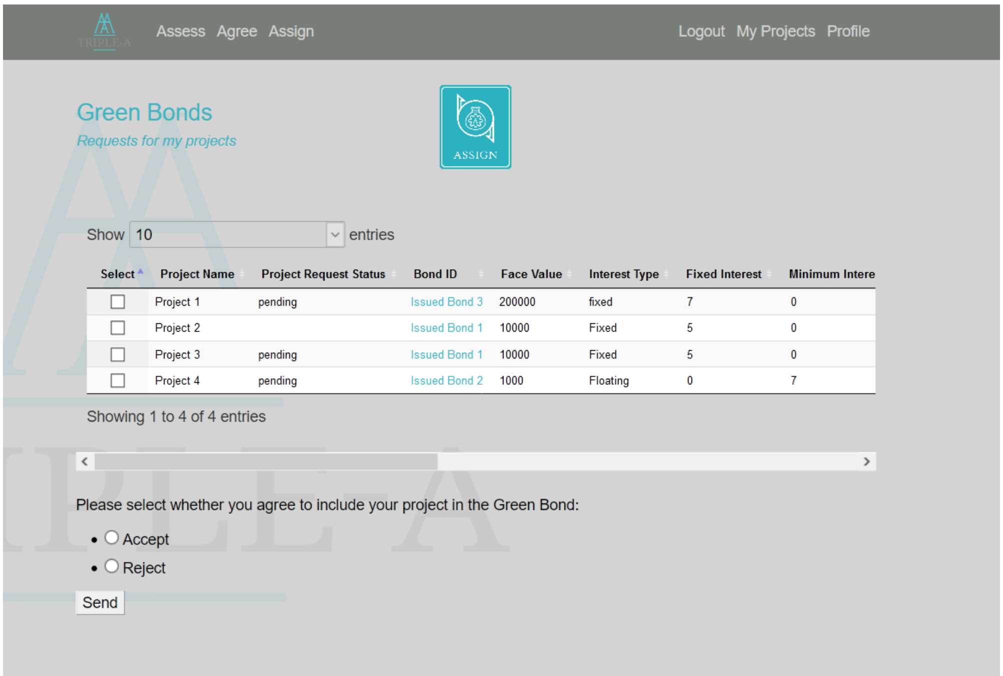


Figure 33: Assign Tool - Green Bond's Requests Interface for Companies / Project Developers

The table provides the Green Bond's details, while the Green Bond's ID acts as a hyperlink that redirects to the complete table of projects that are included in the Green Bond, as depicted below. The table displays all the available data for the projects included.

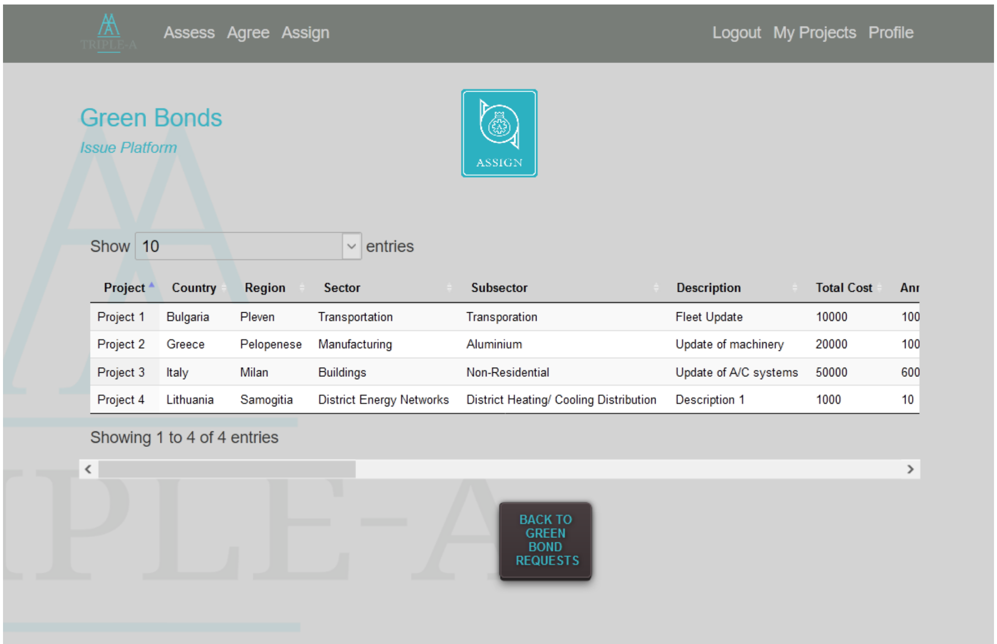


Figure 34: Assign Tool - List of Projects Included in a Green Bond

From the Green Bond's requests interface (Figure 33), the project developer can select proposals from the tables' checkbox and either accept or reject the proposal. It should be noted that a single project can be part of many Green Bond proposals, of which the project developer can choose.

7 "My Projects" Interface

This interface provides the user with the complete lists of projects that have been submitted to the Assess and the Agree Tools. The "**My projects**" interface could be found on the top right corner of the Triple-A Tools container (Figure 3).

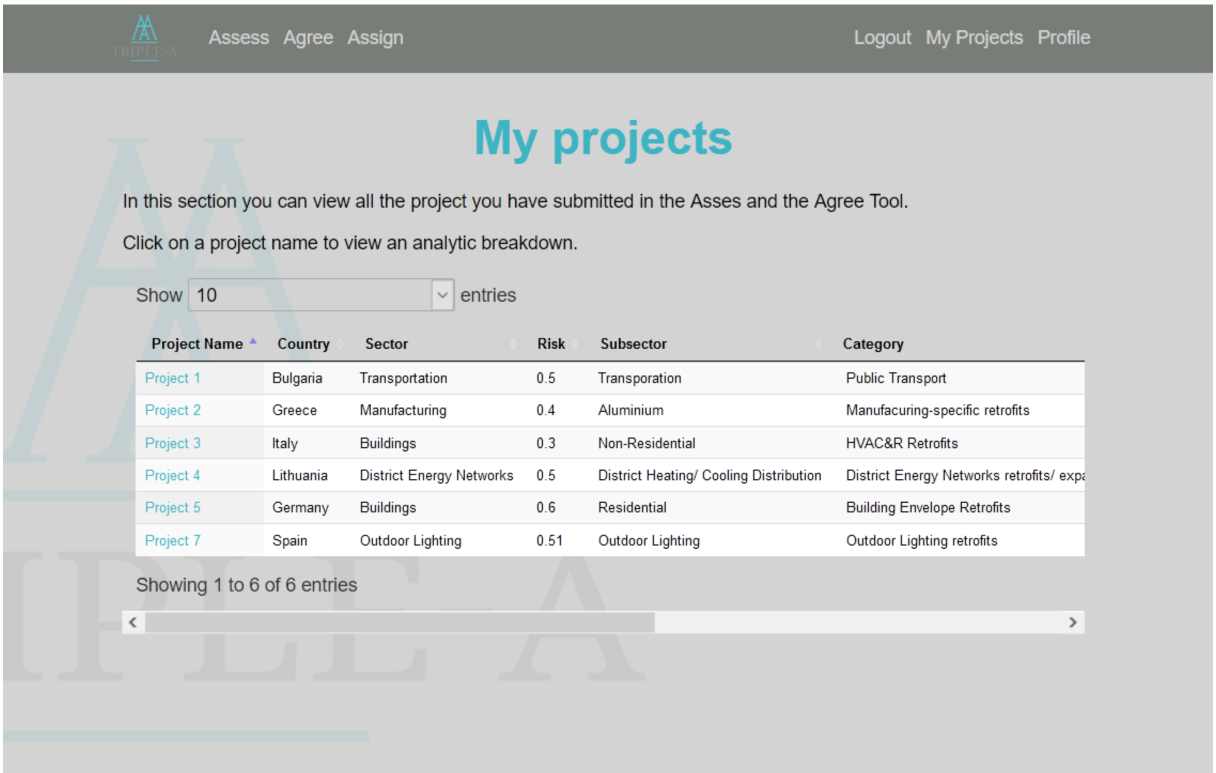


Figure 35: Triple-A Tools - "My Projects" Interface

Each project name that appears in the table is a hyperlink to an analytic overview of the project. The overview includes all the project's data entered in by the user in the Assess and the Agree Tools and the risk assessment, the calculated key performance indicators, and the benchmarking result (Figure 36).

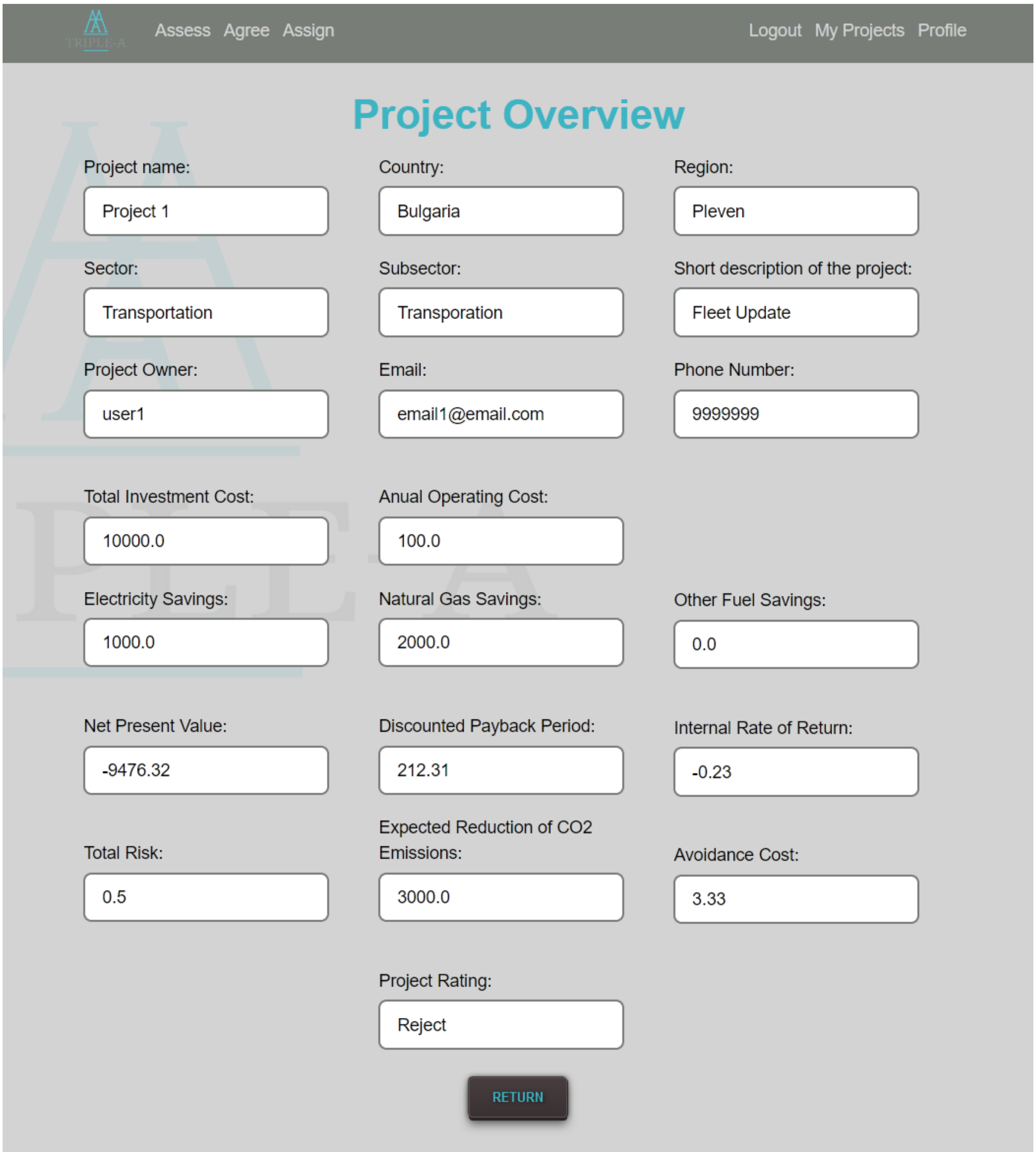


Figure 36: Triple-A Tools - Analytic Overview of a Submitted Project

8 Triple-A Tools Video

Visual content, like video, provides a much more compelling experience than written content. Creating a video is a great way to introduce stakeholders to Triple-A and provides them with a more engaging experience. Videos could also help build the Triple-A brand, “humanising” the activities by providing relevant stakeholders with a relatable story. To this end, although it was not foreseen by the description of Triple-A action, it was decided, apart from compiling reports on Triple-A Tools functionalities and uses, to show to target groups and the general public the work in action and the use of Triple-A Tools step-by-step.

In order to support potential users of the Triple-A methodology, such as financiers, bankers, project developers, investors, energy association, etc., in easily navigating and using the Tools, a dedicated video along with supportive slides have been developed to act as user manuals including all the steps need to be followed in order for a project to be inserted and evaluated through the Tools, as well as for the matchmaking process (Tools with financing instrument) to be realised.

The video and the supporting slides are incorporated in each homepage of the three Triple-A Tools (Asses, Agree, Assign)[5], facilitating users (investors, financiers, project developers) to use the Tools without reading a lengthy report. In order to be easily accessible and gain more visibility, the video has also been placed on the Triple-A home page[6], Dissemination → Media[7] and Tools → Standardised Triple-A Tools[8] sub-pages.

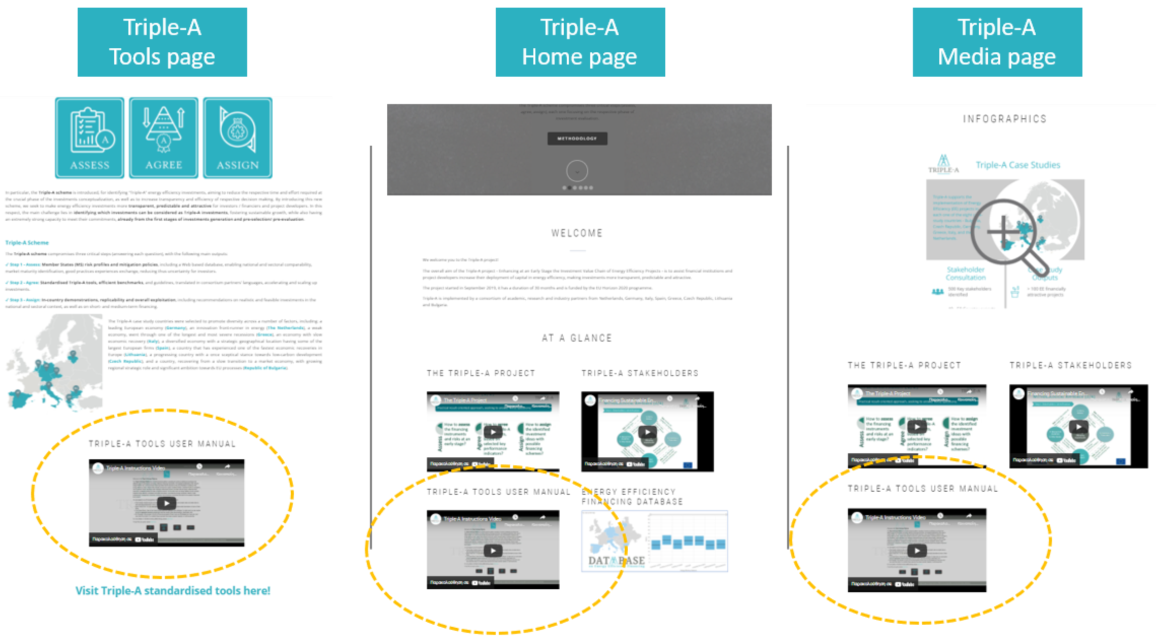


Figure 37: Triple-A Tools Video at Triple-A Official Web-pages

5 https://toolbox.aaa-h2020.eu/
6 https://aaa-h2020.eu/
7 https://aaa-h2020.eu/index.php/media
8 https://aaa-h2020.eu/index.php/tools

9 Conclusions

The present report is an update of the previously submitted deliverable, namely the "D4.3: User manuals (1st version)" - M10, June 2020. It provides a user manual for the navigation and use of the Standardised Triple-A Tools. It displays all the necessary steps and actions that a user could follow in each of the Tools in a descriptive and easily grasped way, explaining the produced output in a non-technical language. The Triple-A Tools are analysed individually, reporting all the required operations during navigation to the information system.

The draft version of Standardised Triple-A Tools is available since June 2020, facilitating relevant key players (project developers, bankers, ESCOs, investors, etc.) in assessing and benchmarking energy efficiency projects with the aim to mainstream the whole process. Until March 2021, the Triple-A Tools have been enhanced by feedback received from stakeholder consultations (bilateral contacts, discussions, structured interviews, webinars, workshops, etc.) to deliver their final version.

Stakeholder consultation regarding the Triple-A Tools has been realised, in which demonstrations and testing have been conducted in bilateral meetings, in order to gather feedback in real-time when each step of the Tools was live presented. In these bilateral meetings, energy efficiency stakeholders have participated, such as energy efficiency companies and project developers, as well as for financers interested in sustainable financing. The meetings have been conducted in the local languages of the Triple-A case study countries, facilitating stakeholders to participate actively and genuinely engage with the Triple-A projects, breaking the language barriers. Feedback on the Tools has been received from **130 stakeholders** since a dedicated section on the Tools functionalities and usefulness has been included in three Triple-A questionnaires.

After several modifications, an updated version of the Triple-A Tools was delivered in December 2020, including the final format and functionalities, as comprehensively described in the present document. However, although the current version constitutes a final version of the three Tools, as planned and foreseen in the Grant Agreement, it is the intention of Triple-A responsible partner (NTUA) to maintain and constantly update the Tools according to the comments received by partners and stakeholders after their presentation in bilateral meetings, webinars and workshops. In this way, the challenges that emerge could be met, while the Triple-A Tools will facilitate the user and assure that their functionalities address the users' requirements and ease.

The current version has brought enhancements to the Assess and Agree Tool and has completed the series of Tools by launching the Triple-A Assign Tool. In particular, the Triple-A Assign Tool performs the matchmaking of EE projects with financing schemes while supporting the underwriting procedure. Based on the stakeholder consultation, key input has been received concerning the improvement of Tools functionalities, such as the incorporation of Green Bonds and Green Mortgages (main target, how to address these kinds of financing instrument and provide interactivity with users, how to address the estimation of the creditworthiness of the borrower), the user-friendliness of the Tools (overall appearance, units in the results, links, more explanations on the result page, etc.), the benchmarking methodology (thresholds and sensitivity), GDPR and privacy issues, perception of the EU Taxonomy questions to the stakeholders (regarding the Assess Tool).

Until March 2021, a number of almost **100 users** (project partners, Triple-A Advisory Board Members, external stakeholders) have been signed up and tested the Tools, providing valuable feedback on the Tools functionalities, methodology and environment, while according to google analytics, in general, **346 unique users** have been visited the Tools environment. In addition, the Triple-A Tools have been tested with real projects that have been collected in an energy efficiency project pipeline within the Triple-A project activities.

In case any support is needed on the navigation and use of the Standardised Triple-A Tools, the user is more than welcome to contact Triple-A Team through the following e-mail: contact@aaa-h2020.eu.