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

D7.10 Minutes of the Final European Roadshow Event on Energy Efficiency Financing

May 2022

The Triple-A project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 846569.

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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 polices, 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	
2	ABN AMRO Bank N.V.	ABN AMRO	NL	
3	Institute for European Energy and Climate Policy Stichting	IEECP	NL	
4	JRC Capital Management Consultancy & Research GmbH	JRC	DE	
5	GFT Italy srl	GFT Italy	IT	
6	CREARA Consulting SL	CREARA	ES	
7	Adelphi Research Gemeinnützige GMBH	adelphi	DE	
8	Piraeus Bank SA	PB	GR	
9	University of Piraeus Research Center	UPRC	GR	
10	SEVEn, The Energy Efficiency Center	SEVEn	CZ	
11	Public Investment Development Agency	VIPA	LT	
12	National Trust Ecofund	NTEF	BG	

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Executive Summary

On May 10th the Final European Roadshow event of Triple-A was successfully conducted in an online format with 139 registered participants. In a 4.5-hour webinar knowing three 1-hour thematic sessions (1) Triple-A Contribution to Energy Efficiency Financing, (2) Sustainable Financing in the Netherlands, and (3) Stakeholder Perspectives, and 5 presentations from Triple-A synergy projects: SMAFIN, INFINITECH, E2DRIVER, EENVEST, and EN-TRACK were promoted.

The aim to raise awareness and share the project findings at the EU level, ensuring reproducibility and exploitation, and overall collaborations with another project after the project end were reached. In total 14 unique speakers, and 3 session chairs contributed to a successful final roadshow event. Notable achievement was the participation of the CEO of ABN AMRO, highlighting the importance of the topic on the national agenda.

The intent was to run the event in hybrid, meaning both online and in person, but due to last minute changes in the agenda resulting from speakers going remote due to various reasons the organizing team IEECP & ABN Amro, together with work package leader UPRC and project leader NTUA decided to move the event to a virtual format.

A link to the full recording of the event is available on the Triple-A YouTube channel, and a selection of the presentations are included in this report.

1 Introduction

The Final European Roadshow Event on Energy Efficiency Financing was organised by IEECP in collaboration with ABN AMRO and work package leader UPRC with the goal to raise awareness and share the project findings at the EU level, ensuring reproducibility and exploitation.

The event was held in 'CIRCL', Amsterdam on May 10th, 2022, back-to-back with the project final meeting the day after on the 11th. In This way bringing the amount of travel, time, and effort required for project partners to attend to a minimum.

The Final European Roadshow event of the Horizon 2020 Triple-A Project on "Facilitating Energy Efficiency Project Financing at an Early Stage: Recommendations from the Triple-A project" was successfully held online through MS Teams on the 10th of May 2022. The event focused on Triple-A's key findings and recommendations, pairing them with European stakeholders' perspectives, providing an overview and an introduction to the current state of energy efficiency support measures in the Netherlands.

139 people registered for the event and had the opportunity to learn more about energy efficiency projects' financing, energy efficiency investments standardized benchmarking, our strategy for exploiting our main outputs and Tools, as well as key recommendations for European countries concerning the mainstreaming process of energy efficiency.

The event is hosted by Dutch Triple-A partners ABN AMRO, one of the leading Dutch Banks & IEECP, an international research institute.

We had the honor of having the event opened and introduced by Mr. Robert Swaak (CEO of ABN AMRO), while Prof. John Psarras (NTUA) welcomed the participants on behalf of Triple-A.

During the 1st session, the consortium partners presented an overview of the projects contribution to energy efficiency financing, through the presentation of Standardized Triple-A Toolbox, the results of the energy efficiency project benchmarking and their exploitation, as well as recommendations for policy framework.

The 2nd session was dedicated to the Dutch energy market with presentations by ABN AMRO representatives, talking about key topics of interest to the financing community, project developers and energy sector stakeholders.

In the 3rd session presentations were made by our Advisory Board Members, Leo Bedford - EP Group, Alice Corovessi – INZEB, and Csaba de Csiky - EnerSave Capital, presenting an external stakeholder perspective to the topic.

Finally, the event invited and saw presentation from our sister Horizon 2020 projects E2DRIVER, EEnvest, EN-TRACK, INFINITECH, SMAFIN who had the opportunity to present their project scope and strategies towards energy efficiency investments.

The event was originally intended to be organised in a hybrid format to both accommodate for the large number of international attendees interested in joining the event, and associated with international projects, and to provide an alternative for partners, speakers, and attendees unable to attend due to the ongoing travel restrictions due to the ongoing pandemic therefore being able to join remotely. Physical attendance was however the preferred method to promote and encourage networking and sharing of contacts and experiences to support the replication and sustainability actions of the Triple-A project after its conclusion by drawing in as many interested stakeholders as possible.

However, due to last minute cancelations from 5 speakers who opted for remote instead of priorly confirmed physical attendance, bringing the ratio remote to in-person session 9:5 (from 4:10), the decision was made to move the event fully online as the organising partners did not see the value of gathering in a large venue with all associated costs for catering, video production, and rent, to have attendees watch and listen to over 2.5 hours of video presentations.

An overview of the event is provided in section (2) and includes a link to the full recording. The agenda is given in section (3), with some picture impressions of the final event in section (4). (5) includes the full attendee report and (6) the speaker presentations as they were presented during the event.

2 Event Details

Meeting Details:

- **Format:** Microsoft Teams Webinar Event
- **Date**: 10/05/22
- **Start time**: 12:01:40
- **End time**: 16:26:42
- **Meeting duration**: 4h 25m 2s
- **Registered Participants:** 139
    A. *Financing bodies: 20*
    B. *Companies / Project developers: 30*
    C. *Policy makers and Policy support Institutes: 7*
    D. *Researchers and Academia: 57*
    E. *Other: 25*
- **Attended Participants (% of registrations)**: 91 (65%)
- **No-shows (% of total):** 48 (35%)

Host & Moderation:

1. Erik Faassen, Project Manager (IEECP)

Speakers:

1. Robert Swaak, CEO of ABN AMRO
2. Chara Karakosta, NTUA
3. Philip Mexis, NTUA
4. Pedro Luis Espejo, CREARA
5. Adrián Cañamares Cordente, CREARA
6. Alice Corovessi, INZEB
7. John Soldatos, INFINITECH
8. Bram Adema, CFP
9. Martin Mooij, DGBC
10. Erudino Llano Guemes, E2DRIVER
11. Stoyan Danov, EN-TRACK
12. Pozza Cristian, EENVEST
13. Leo Bedford, EP Group
14. Csaba de Csiky, EnerSave Capital

Session Chairs:

1. John Psarras, NTUA
2. Richard Kooloos, ABN AMRO
3. Jiri Karasek, SEVEn

The event was split into three thematic sessions of ~1 hour each, with another 5 presentation from Triple-A synergy projects

Session 1: Triple-A Contribution to Energy Efficiency Financing

The overall goal of this sessions was to, in brief, present the Triple-A project, the main results and outcomes, and future sustainability and replication efforts. In this way providing all attendees the brief overview of what's been going on. The session is chaired by NTUA.

Session 2: Sustainable Financing in the Netherlands

This session was to zoom in on the situation in the Netherlands, providing hands on examples of industry players (CFP & DGBC) making the connection between the EU focus of Triple-A and the National focus of industry players also dealing with national regulation and policy. The session is chaired by ABN AMRO.

Session 3: Stakeholder Perspectives

Final dedicated session was to collect and provide stakeholder perspectives that go beyond the scope of the Netherlands and the Triple-A project. Advisory board members shared their thoughts and presentations on the current situation, barriers, and recommendations.

Sister Projects:

To promote synergy amongst EU Horizon 2020 projects 5 brief overview presentations from Triple-A Sister Projects were included as part of the three thematic sessions. These sister projects are: SMAFIN, INFINITECH, E2DRIVER, EENVEST, and EN-TRACK

Noteworthy is the participation of Robert Swaak CEO of ABN Amro bank as a speaker on the agenda, highlighting the importance of the national agenda of one of the bigger banks in the world and showcasing the importance of the Triple-A energy efficiency finance topic.

A link to the final recording is available here:

Triple-A: Final European Roadshow Event - Facilitating Energy Efficiency Project Financing at an Early Stage

A summary of the speakers main outcomes and key takeaways from their sessions are summarized below:

- **Triple-A project Overview (Chara Karakosta, NTUA)**
  - Enhancement of the investors' interest and capacity building paving the way for financing Triple-A Investments
  - Triple-A rating system fostering energy efficiency investments at an early stage
  - KPIs and benchmarks for the identification of Triple-A investments
  - Interactive Web-Based Database on Energy Efficiency Financing
  - Links with energy efficiency certification schemes
  - Promoting European priorities and targeted policy actions on leveraging private funding

- **Triple-A Standardised Tools (Philip Mexis, NTUA)**
  - Although the majority of projects in the Triple-A Tools are compliant with the EU Taxonomy, stakeholders declared that it is not widely used yet.
  - There is a significant impact on the profitability of EE investments and uncertainty about the estimated cash flows of EE projects emerging from the fluctuating energy prices.
  - Policymaking should stir towards the standardisation of project design to make the EE projects' replicability easier. Standardisation could be achieved by establishing a common (even pan-European) framework of EE project fiches, EE project benchmarking and underwiring procedures.

Added value to stakeholders:

- Project developers: Substantiate the financial performance of their promising EE project ideas
- Investors and financing institutions: gain confidence - identify eligible project ideas according to their preferences in specific criteria
- Increase credibility and leverage of EE projects.

- User-friendly benchmarking tool: comfortable and not time-consuming.
- Valid KPIs and standardized calculation parameters.
- Replication of projects, either in terms of financing or/and technical solutions, is highly desired. Similar projects allow project developers to demonstrate the proof of concept, promote them as a product, and minimize development costs.
- Another significant instrument that has provenly assisted EE projects financing is project aggregation. Aggregation of EE projects seems to be more critical than other issues, as it has a positive impact on risk assessment and could provide economies of scale.
- Building confidence between project developers and investors is critical for the implementation – and decision making of EE projects. This could be achieved by introducing standardised underwriting methods, standardised energy efficiency contracts and a stable economic environment regarding energy prices and/or energy taxes.

➢ **Recommendation for policy framework & Sustainability (Adrián Cañamares, Creara)**

Exploitable Results:

- Triple-A Standarised Tools
- Triple-A Database

Business Plan & Monetization Strategy:

- Joint Exploitation
- The focus should be on raising funds from the Tools through specific paid features and allowing the free and open use of the Database to strengthen and attract a user base
- Depending on the funding needs, related ads could be placed in the database

Integration Strategy:

- The outcomes are aimed to be of maximum utility to all stakeholders in the sector (Triple-A certification, benchmarks, methodology, database etc.)
- Triple-A's interoperability capability has been successfully tested by transferring projects to the DEEP platform

➢ **Data driven approach to energy savings in the Netherlands (Bram Adema, Corporate Facility Partners (CFP))**

- Global banks create worldwide carbon reduction with CFP Green Buildings' online platforms, providing actionable insights and actual business cases per building or portfolio
- 192 countries have signed ambitious carbon goals for real estate, showcasing an increased focus on sustainability within the real estate and finance sector
- CFP Green buildings empowers organisations to reduce carbon emissions profitability with consultancy and software for sustainable real estate; with over 30.000 buildings supplied with on-site consultancy since 2005 and over 400.000 digital solutions since 2015
- Green Buildings Tool dashboard allowed for insightful and impactful case analysis per renovation project. Highly encouraged to have a look at www.greenbuildingstool.com

➢ **Paris Proof DGBC Deltaplan (Martin Mooij, Dutch Green Building Council (DGBC))**

- Dutch building sector major contributor to emissions with 29% coming from operational energy and 11 from embodied energy
- Existing Dutch regulation is (overly) complex, Accelerator of transition is required, Clear lack of targets for the building sector.
- As a means to combat this the DGBC proposed to use data as a driver for acceleration by setting actual energy usage as the main indicator and fully integrated in reports. To get to this point alignment is required with this figure being adopted in many reports, though for now these are still often using different naming of sectors; area, base building, or allow for offsetting (or explicitly not).
- Propose to use the 'Werkelijke Energie intensiteits indicator (WEii) – actual energy intensity indicator. WEii = method to determine the actual energy use (building + use) per building in kWh/m^2
- All energy use and supply is measured based on GO (usable floorspace) no primary energy conversion is used in the WEii protocol.
- Several building classifications are proposed with the top two defining between Most energy efficient WENG (werkelijk energieNeutraal gebouw) second most energy efficient (Paris proof) and five other classes of energy-efficiency.

➢ **EN-TRACK - Energy Efficiency Performance-Tracking Platform for Benchmarking Savings and Investments in Buildings (Stoyan Danov, CIMNE)**

- Regional and local governments, providing a single place for storing and monitoring the performance of their public building stock, supporting reporting, decision-making and policies related to their climate action commitments.
- Municipalities and cities that want to promote voluntary or mandatory schemes for reporting of building energy performance related data for all buildings (public & private) in their territory. The EN-TRACK platform will provide the technical infrastructure to support the practical implementation of these policies.

➢ **Energy Efficiency Investments in the Building Sector (Alice Corovessi, INZEB)**

Actions to unlock energy efficiency investments:

- Well-designed building codes and standards requiring minimum energy efficiency levels in design, construction and/or operation of a building, can secure decrease of energy expenses over buildings' lifetime and unlock investments and investors' interest!
- Governments must set and work towards clear energy reduction targets for the existing building stock and for new real estate investments including government owned buildings and support this way investments' decision makers.
- Regional and local governments have opportunities to make strategic investments in buildings' energy efficiency and work with national and private sector financial institutions to help overcome inactivity and spur more investments for buildings.
- Successful policies and best practices in one region and/or Member State should be shared to create increased demand and acceptance for energy efficiency investments.
- Increasing the transparency of building performance enables building owners, building managers, real estate portfolio owners and occupants to make informed and more secure real estate transactions, improve buildings' performance, and track performance against the set targets. Energy efficiency investors appreciate such frameworks and are more likely to invest when the environment support their decisions!

- Public and private sectors should work together to train the workforce to successfully implement energy reduction works. The only way to convince investors is to train and engage the whole ecosystem.

➢ **Misalignment of Stakeholders Interest in the Energy Saving industry (Csaba de Csiky, EnerSaveCapital**

Taxation on the Capital products supporting Energy saving measures

- The US has a thriving Municipal bond market where the coupon payments do not suffer income tax – no need to reinvent the wheel – and the increased VAT receipts will compensate for the loss in income tax.
- Lower funding costs could help to get projects over the line
- Allowing individual investors to purchase these kinds of bonds up to a certain limit, will open a pool of capital currently not available

Cutting "red tape" to get projects up and running

- It takes too long to get Energy Saving Projects approved on a building authority level
- Procurement needs to be simplified – in any sector
    - • If we now want to reduce heating cost (reduce gas imports), a public authority would need to
        - • Dedicate 3 months for a Tender preparation
        - • 3 months for tendering – then 30 days evaluation – if all goes well it will take a further 30 to 90 days to get contracts established
        - • We are in the 22/23 winter season before a large school boiler is changed – at the same time we say we want to cut Russian gas dependence

Lack of alignment of interest – this needs to make sense from the perspective of the:

- Manufacturer – likes to have more sales - but large clients have better purchasing power – hence let's keep market fragmented
- Financier can't deal with small investment proposals – but this is where the bulk of the business is € 10 to 20,000 per household
- Energy saving needs to be financed and paid from the savings – As the head of a large infrastructure investor said, the widget manufacturer will not spend his money on energy saving lighting, but he will spend its money on producing better widgets - this is way down on the majority of people's "spending plan"

Super ESCO's

- Scale makes life easier for funding, procurement, and rollout
- Today's ESCO's with a few exceptions have
    - Weak balance sheets
    - Only a local focus
    - No purchasing power – which is the key to lower the cost
    - Entrepreneurs will need to enter the sector and either build this industry or engage on a merger wave to get to scale

3 Agenda

Facilitating Energy Efficiency Project Financing at an Early Stage

Date/ Time: Tuesday, 10th of May 2022, 13:00 - 17:00 CET
ONLINE: *Microsoft Teams Webinar Event*

13:00 – 13:05	Welcoming speech & Introduction (ABN AMRO) ***Robert Swaak, CEO***
13:05 – 14:00	**THEMATIC SESSION 1. TRIPLE-A CONTRIBUTION TO ENERGY EFFICIENCY FINANCING** *CHAIR: JOHN PSARRAS (NTUA)*
13:05 – 13:10	Triple-A project Welcome ***John Psarras, NTUA***
13:10 – 13:15	Triple-A project Overview ***Chara Karakosta, NTUA***
13:15 – 13:35	Triple-A standardised tools (Philip Mexis, NTUA) ***Added value, Tools Methodology & Environment, Benchmarking Results, Lessons learnt***
13:35 – 13:50	Recommendation for policy framework & Sustainability (Pedro Espejo & Adrián Cordente, CREARA) ***Exploitation Strategy & Future Perspectives***
13:50 – 14:00	Triple-A synergy projects promoting energy efficiency investments ***Alice Corovessi - SMAFIN, John Soldatos - INFINITECH***
14:00 – 14:15	***BREAK***
14:15 – 15:00	**THEMATIC SESSION 2: SUSTAINABLE FINANCING IN THE NETHERLANDS** *CHAIR: RICHARD KOOLOOS (ABN AMRO)*
14:15 – 14:35	Data driven approach to energy savings in the Netherlands ***Bram Adema – Corporate Facility Partners (CFP) & ABN AMRO Commercial Real Estate***
14:35 – 14:55	Presentation from the Dutch Green Building Council ***Martin Mooij - Dutch Green Building Council (DGBC)***
14:55 – 15:00	Triple-A synergy projects promoting energy efficiency investments ***Erudino Llano Guemes - E2DRIVER***
15:00 – 15:15	***BREAK***
15:15 – 16:30	**THEMATIC SESSION 3. STAKEHOLDER PERSPECTIVES** *CHAIR: JIŘÍ KARÁSEK (SEVEN)*
15:15 – 15:25	Triple-A synergy projects promoting energy efficiency investments ***Cristian Pozza - EENVEST, Stoyan Danov - EN-TRACK***
15:25 – 15:40	Operationalising energy efficiency first within financial Institutions (EP Group) ***Leo Bedford - Advisory Board Member***
15:40 - 15:55	Energy Efficiency Investments in the Building Sector (INZEB) ***Alice Corovessi - Advisory Board Member***
15:55 -16:10	Stakeholder perspectives (EnerSave Capital) ***Csaba de Csiky - Advisory Board Member***
16:10 – 16:30	*WRAP-UP & CLOSING REMARKS*
16:30	***END***

4 Impressions

Figure 1: Triple-A Team Picture (CIRCL, Amsterdam | May 11, 2022)

Figure 2: Event Promotion Chara Karakosta, NTUA (Top), Martin Mooij DGBC (left), Bram Adema CFP (right)

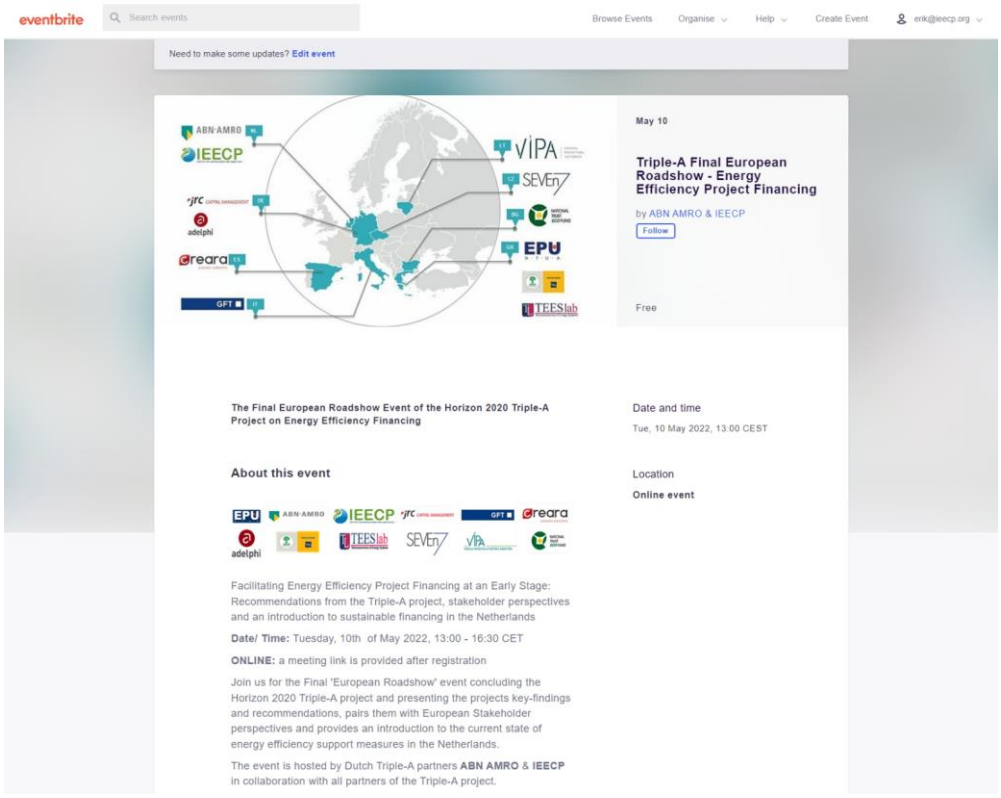


Figure 3: Triple-A Final European Roadshow Event Page (eventbrite)

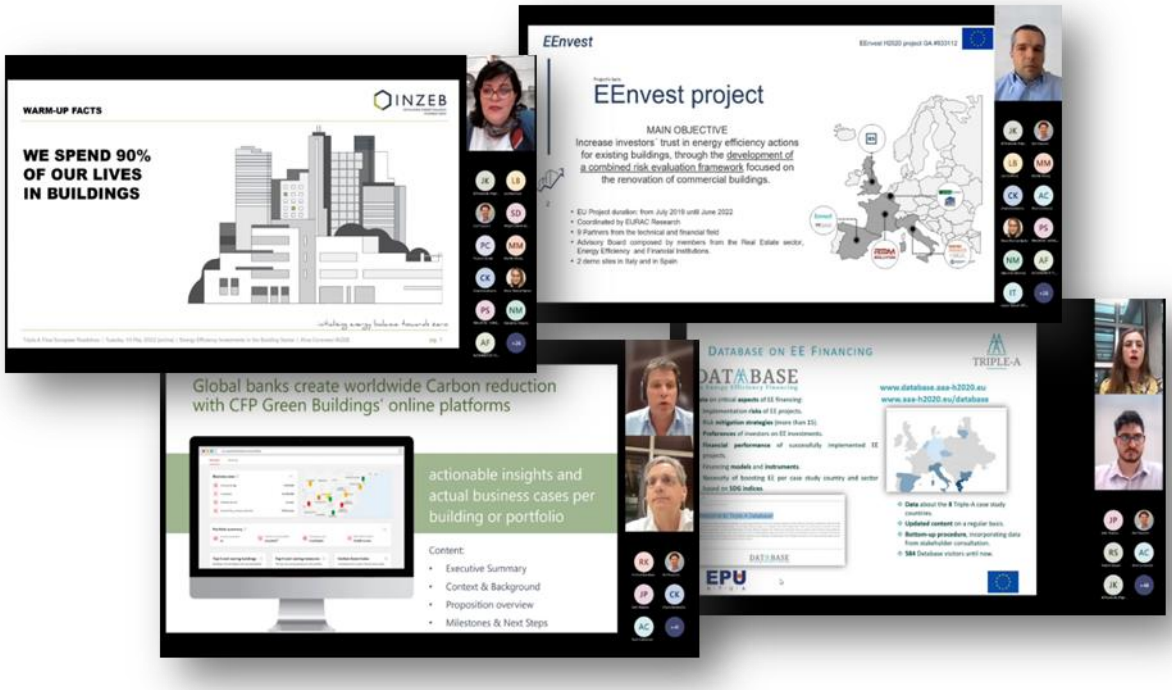


Figure 4: Triple-A Final Roadshow overview (screen captures)

5 Attendance & Registrations

A complete overview of the registered attendees for the Final European Roadshow event is provided here:

Registered participants per Triple-A stakeholder category:

Table 1: Stakeholder category overview:

Stakeholder Category:	Registrations:
A - Financing bodies	20
B - Companies/ Project developers	30
C - Policy makers and Policy support Institutes	7
D - Researchers and Academia	57
E - Other	25
Total:	**139**

Table 2: Registered participants per country overview:

Country:	Registrations:
Greece	69
Netherlands	17
Spain	10
Belgium	7
Germany	4
Italy	4
France	3
Switzerland	3
Uganda	3
United Kingdom	3
Bulgaria	2
Czech Republic	2
Luxembourg	2
Romania	2
Cyprus	1
Hungary	1
Iran	1
Ireland	1
Lithuania	1
Norway	1
Saudi Arabia	1
Ukraine	1

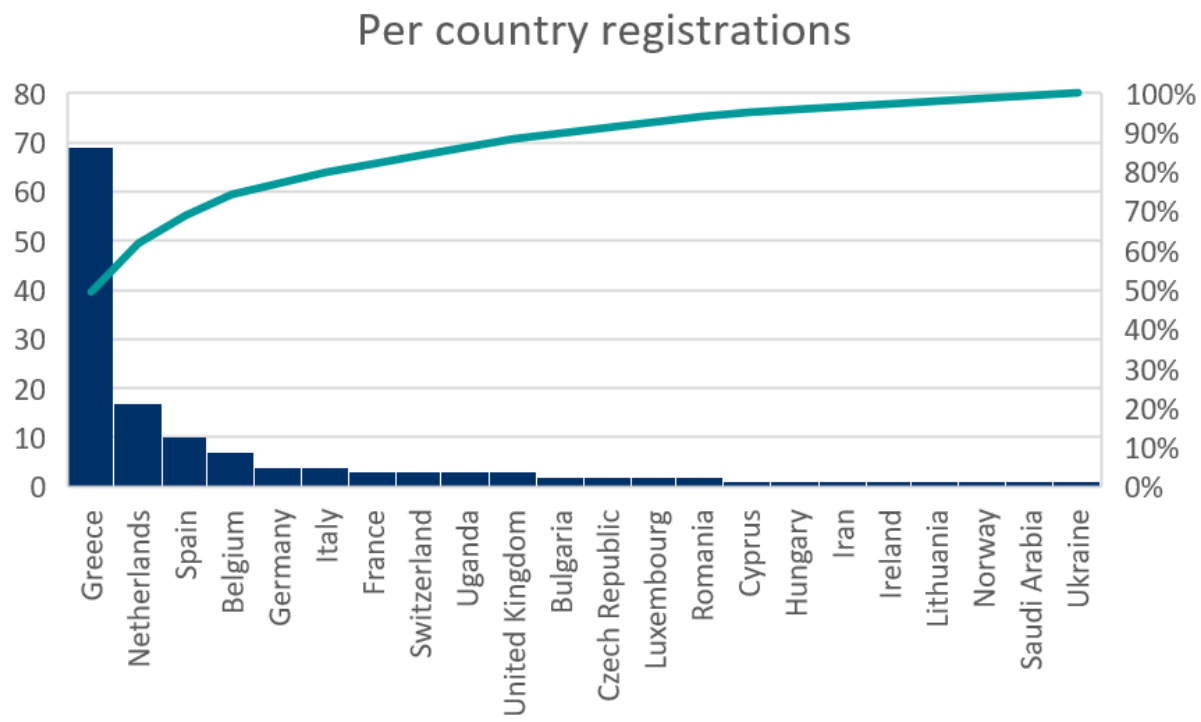


Figure 5: Overview of the number of registrations received per country

Figure 6: Map of registration activity

6 Presentations

In order of the event agenda the publicly made presentations are included on the following pages.

1. Triple-A Project Overview - Chara Karakosta, NTUA
2. Triple-A Standardised tools - Philip Mexis, NTUA | Added value, Tools Methodology & Environment, Benchmarking Results, Lessons learnt
3. Triple-A Recommendation for policy framework & Sustainability - Pedro Espejo & Adrián Cordente, CREARA | Exploitation Strategy & Future Perspectives
4. SMAFIN - Alice Corovessi (Sister Project)
5. INFINITECH - John Soldatos (Sister Project)
6. EENVEST - Cristian Pozza,
7. EN-TRACK - Stoyan Danov
8. Operationalising energy efficiency first within financial Institutions – Leo Bedford, EP Group
9. Energy Efficiency Investments in the Building Sector – Alice Corovessi, INZEB
10. Stakeholder perspectives - Csaba de Csiky, EnerSave Capital

The following presentations are not included but can be accessed through the event recording which is available on the Triple-A project's YouTube channel.

1. Data driven approach to energy savings in the Netherlands - Bram Adema, Corporate Facility Partners (CFP)
1. Presentation from the Dutch Green Building Council - Martin Mooij, DGBC
2. E2DRIVER - Erudino Llano Guemes (video presentation)

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

TRIPLE-A

The Triple-A Project: Overview

Triple-A Final European Roadshow

10 May 2022

Amsterdam, The Netherlands

Dr Chara Karakosta

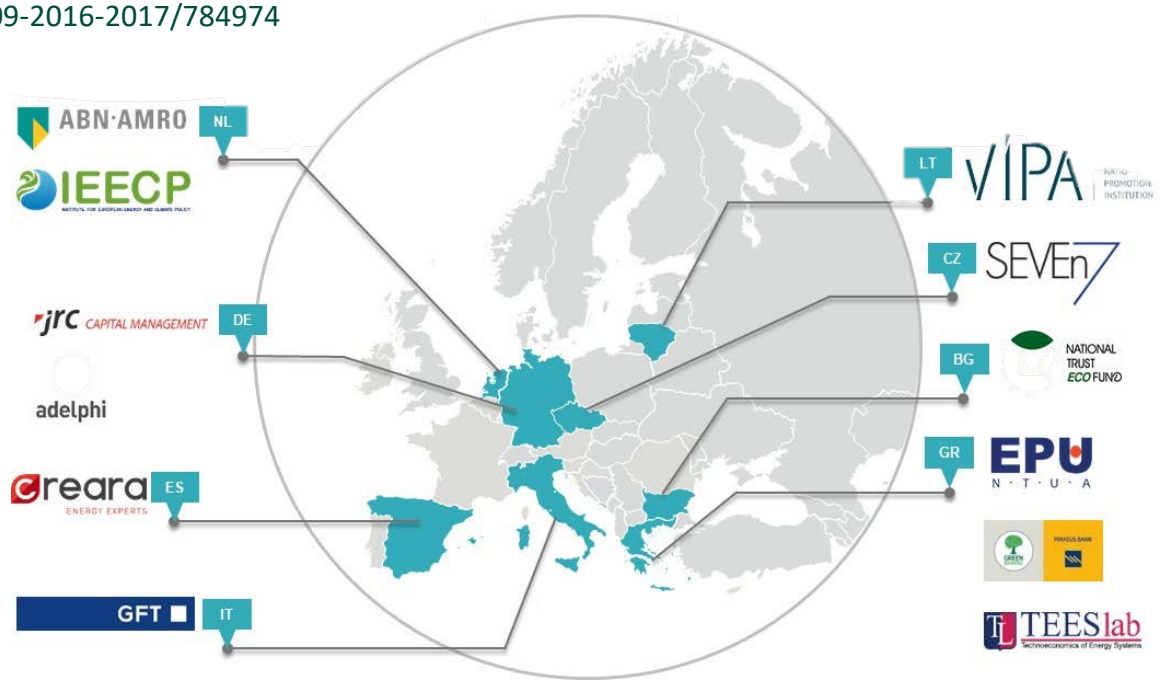
School of Electrical and Computer Engineering
National Technical University of Athens

EPU N·T·U·A

General Info

TRIPLE-A

Title:	Enhancing at an Early Stage the Investment Value Chain of Energy Efficiency Projects
Funding:	European Union's Horizon 2020 Research and Innovation Programme-H2020-EU.3.3.7. H2020-EU.3.3.1.
Started:	September 2019
Duration:	33 Months
Coordinator:	National Technical University of Athens (NTUA) - Greece
	Prof. John Psarras
Participants:	12
Budget:	1.486.196,25€
Contract No:	H2020-EE-09-2016-2017/784974
Grant agreement ID	846569



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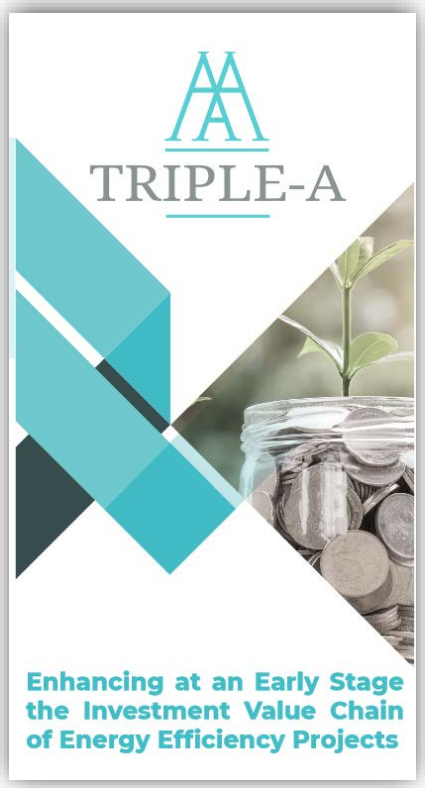
SCOPE

TRIPLE-A

How EE financing becomes mainstream?



The Triple-A Approach:

- **Promotes** investments with a strong capacity to meet their commitments, already from the first stages of investment generation.
- **Identifies** the Triple-A investments, fostering sustainable growth.
- **Reduces** the respective time and effort required at the crucial phase of the investments' conceptualisation.
- **Increases** transparency and efficiency of respective decision making.
- **Makes** energy efficiency investments more predictable and attractive for investors/financiers and project developers.

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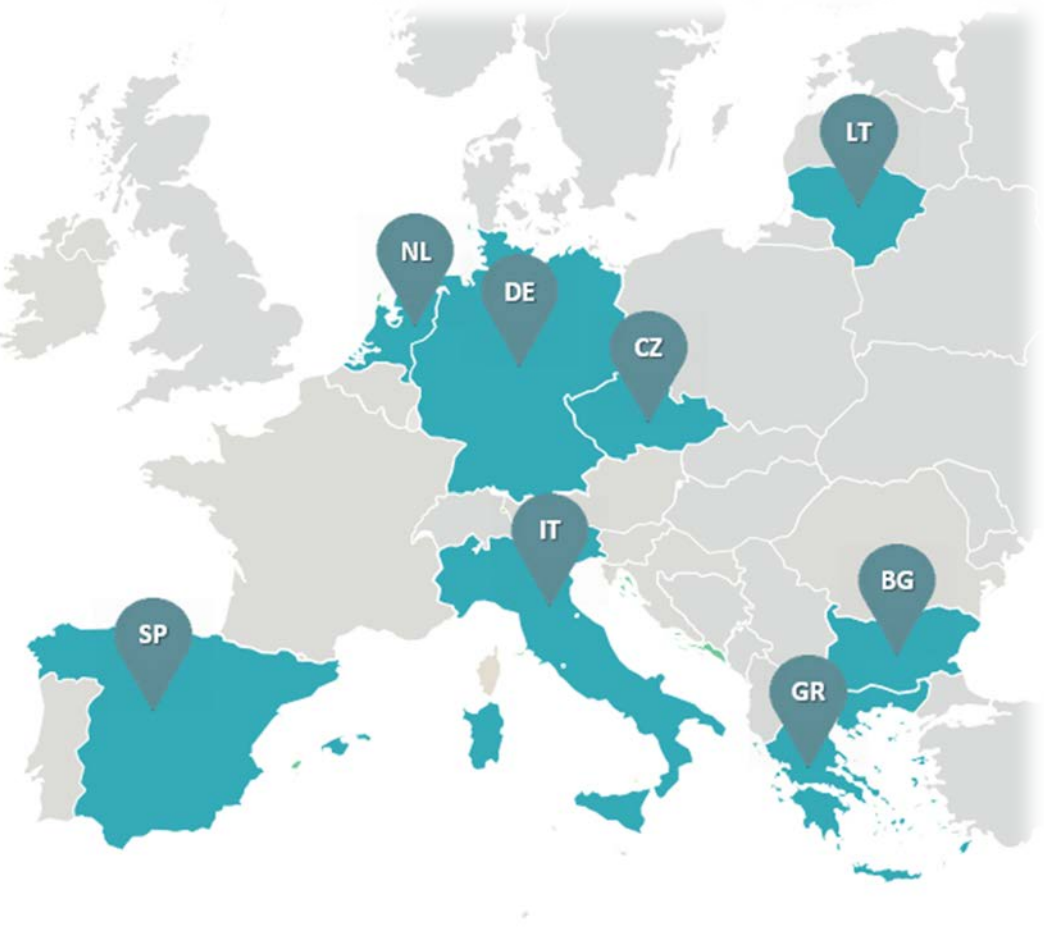
CASE STUDIES

- Strategically selected to promote diversity across a number of factors.
- Consultation process to engage national stakeholders:
  - ✓ **723** stakeholders identified, **139** actively engaged through **110** bilateral meetings and **39** Advisory Board Meetings.
  - ✓ **5** Triple-A Questionnaires with **228** responses.
- **9** Capacity Building Workshops & **8** Regional Training Workshops.
- **55** Triple-A investments have been identified in total.
- **Synthesis paper** for each case study with targeted policy framework and market architecture recommendations.



Karakosta, C., Papapostolou, A., Vasileiou, G., Psarras, J. (2021). **Financial Schemes for Energy Efficiency Projects: Lessons Learnt from In-Country Demonstrations.** Energy Services Fundamentals and Financing. Edited by: David Borge-Diez and Enrique Rosales-Asensio. USA: Academic Press, Elsevier, ISBN: 9780128205921, pp 55-78.

THE TRIPLE-A APPROACH

TRIPLE-A

Practical result-oriented approach, seeking to answer three questions:

Assess How to **assess** the financing instruments and risks at an early stage?

Agree How to **agree** on the Triple-A investments, based on selected key performance indicators?

Assign How to **assign** the identified investment ideas with possible financing schemes?

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STANDARDISED TRIPLE-A TOOLS

TRIPLE-A

Key elements to pave the way for identifying and financing Triple-A investments and materialize the Triple-A approach

- **Risks** and **maturity** of investments Evaluation.
- **EU Taxonomy compliance**: Comprehensive analysis of EU Taxonomy eligibility criteria presented to investors.
- **189** EE financially attractive **projects collected**.

- **Benchmarking** of investment ideas based on **Financial**, **Risk** and **SDG** indicators.
- Electre-Tri **Multicriteria Decision Analysis**.
- **Categorisation** of projects into 3 Classes (Triple-A, Reserved, Rejected).
- **55 Triple-A** EE projects.

- **Requests** for Green Loans, Mortgages, Green Bonds & Energy Efficiency Auctions.
- **Matchmaking** between bankable EE projects and financing schemes.
- **Pathways** to achieve project delivery (contracts, underwriting procedures, etc.).
- Elaboration of **38 Project Fiches**.
- Submission of promising energy efficiency projects in related **European platforms** for strategic investments.

toolbox.aaa-h2020.eu
aaa-h2020.eu/tools


Buildings


Manufacturing


Transport


District Energy Networks


Outdoor Lighting

EPU NTUA

DATABASE ON EE FINANCING

TRIPLE-A

DATABASE
on Energy Efficiency Financing

www.database.aaa-h2020.eu
www.aaa-h2020.eu/database

Data on critical **aspects** of EE financing:

- Implementation **risks** of EE projects.
- Risk **mitigation strategies** (more than 15).
- **Preferences** of investors on EE investments.
- **Financial performance** of successfully implemented EE projects.
- Financing **models** and **instruments**.
- Necessity of boosting EE per case study country and sector based on **SDG indices**.

- **Data** about the **8** Triple-A case study countries.
- **Updated content** on a regular basis.
- **Bottom-up procedure**, incorporating data from stakeholder consultation.
- **584** Database visitors until now.

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Main Challenges Faced

- **Resistance** by stakeholders of targeted categories (e.g., financial sector, project developers, etc.) in **engaging in the dialogue process**.
- **Difficulty gathering input**, project ideas and involving targeted stakeholders throughout 8 different case study counties.
- Efforts to gather a **sufficient number of officially engaged stakeholders** in the Triple-A events (capacity-building webinars, workshops, etc.) and experts from countries **beyond the consortium countries**.
- **Covid-19 pandemic** affected the proper stakeholder engagement, reducing personal contact and converting all bilateral meetings into online teleconferences.
- **Competition of potential stakeholders** (e.g., Banks or financing institutes are not always willing to share information, especially on new business models).
- **Data confidentiality** issues for many types of projects and stakeholders.
- Stakeholders in Eastern European countries are **not yet familiar with the EU Taxonomy** principles.
- The **energy crisis** and the **rapid fluctuation of energy prices** affect the benchmarking results, as they are based on European statistics, which are not updated with the same frequency. The Triple-A Tools could be interconnected to receive energy prices with more frequency to result in more realistic results.

OUTCOMES

TRIPLE-A

- Enhancement of the investors' interest and capacity building paving the way for financing Triple-A Investments
- Triple-A rating system fostering energy efficiency investments at an early stage
- KPIs and benchmarks for the identification of Triple-A investments
- Interactive Web-Based Database on Energy Efficiency Financing
- Links with energy efficiency certification schemes
- Promoting European priorities and targeted policy actions on leveraging private funding

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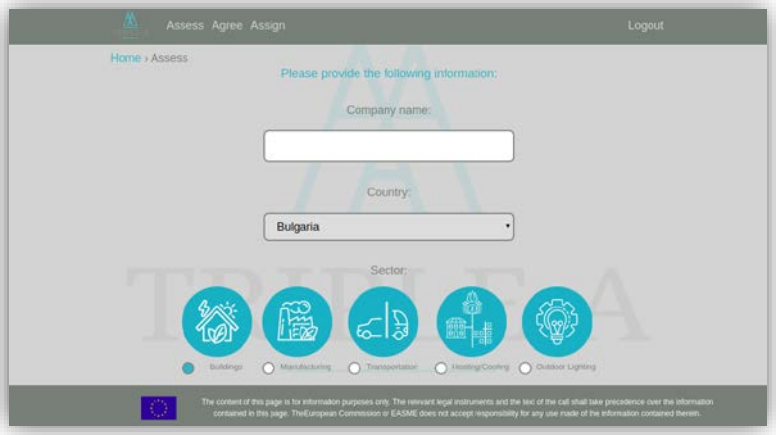
EXPLORE OUR TRIPLE-A TOOLS

TRIPLE-A

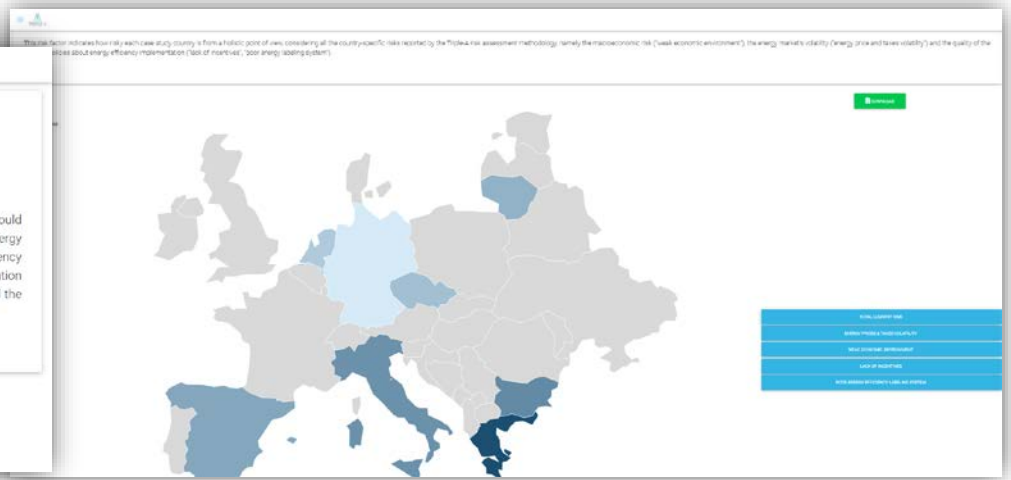
Standardised Triple-A Tools

https://toolbox.aaa-h2020.eu/



https://aaa-h2020.eu/database

Web-based Database on Energy Efficiency Financing



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

TRIPLE-A

Thank you!

Dr Chara Karakosta

e-mail: chara@epu.ntua.gr

Triple-A Coordinator

Decision Support Systems Laboratory

School of Electrical and Computer Engineering

National Technical University of Athens

Visit our Website

www.aaa-h2020.eu

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Triple-A Project

triple_a_horizon2020

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

TRIPLE-A

The Triple-A Project:

Added value, Tools Methodology & Environment, Benchmarking Results, Lessons learnt

Triple-A Final European Roadshow

10 May 2022

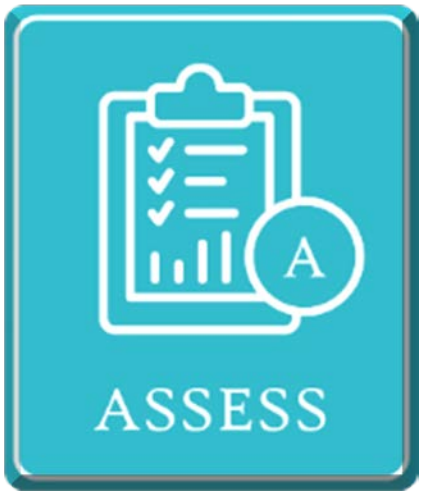
Amsterdam, The Netherlands

School of Electrical and Computer Engineering
National Technical University of Athens

INTRODUCTION (1/3)

TRIPLE-A

The Triple-A Standardised Tools



Key elements to pave the way for identifying and financing Triple-A investments and materialize the Triple-A approach

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INTRODUCTION (2/3)

TRIPLE-A

Overview

EU Taxonomy

EE Risks & Mitigation Strategies

Assess Tool

Step 1: Insert Project data
- Project Name
- Country
- Project Sector

Step 2: Insert Additional project data
Project Subsector/category

Step 3: EU Taxonomy Compliance
Answer to the EU Taxonomy Compliance Questions

Step 4: Risk Assessment
Answer the Risk Assessment Questions

Step 5: Results - Aggregated Risk

Agree Tool

Step 1: Insert Project Data
- Project Name
- Initial Investment Cost
- Projects Estimated Energy savings

Step 2: Criteria Selection for Project Evaluation:
- Financial Indicator
- Criteria Weights
- Project Risk
- **SDG criteria**

Step 3: Results: Class
- Triple-A
- Reserved
- Rejected

Assign Tool

Step 1: Select Action

Project Developers
- Financing Proposals
- Green Bond Request

Financing Bodies
- Find Projects
- Aggregate Projects for Green Bond
- Find Green Bonds
- View sent proposals

Step 2: Perform Action

Project Developers
- Accept or Reject Financing Proposals
- Select Projects to ussue a Green Bond
- Accept or Reject a Green Bond Request

Financing Bodies
- Find Projects and send a Financing Proposal
- View and buy Green Bonds
- View status of proposals

EE Financing Mechanisms

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INTRODUCTION (3/3)

TRIPLE-A

Technical Characteristics

Technical implementation characteristics:

- Python 3.0 programming language
- Django framework
- SQLite database back-end
- Running on EPU-NTUA servers

Accessible at:

- http://toolbox.aaa-h2020.eu
- https://aaa-h2020.eu/tools

Standardisation:

- Interoperability with **EEFIG DEEP platform**
- **UNIDO** Risk Assessment Framework
- Links with **Sustainable Development Goals** Indicators
- Calculations based on **Eurostat** official statistics
- KPI Calculations based on **European Commission's Guide** to Cost-Benefit Analysis of Investment Projects
- Incorporation of **EU Taxonomy**

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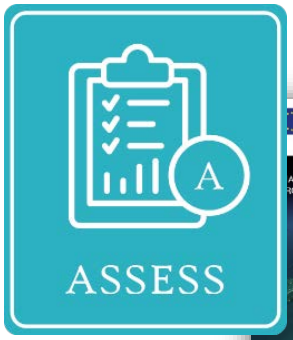
The Assess Tool (1/4)

TRIPLE-A



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

- Triple-A Project sectors & categories **match EU Taxonomy.**
- Comprehensive **analysis** of **EU Taxonomy** eligibility criteria presented to investors.
- 170 Energy Efficiency financially attractive projects collected.

EU Taxonomy eligibility criteria → Investments' **total risk** calculation → Pipeline of at least **100** EE financially attractive projects

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The Assess Tool (2/4)

TRIPLE-A

Project sectors and categories

Buildings

- Building envelope retrofits
- HVAC&R retrofits
- Lighting appliances' retrofits
- Automatic control retrofits
- RES installations
- Construction of new buildings

Manufacturing

- Manufacturing-specific retrofits

District Energy Networks

- District Energy Networks retrofits/expansion

Transportation

- Purchase of new commercial vehicles
- Purchase of new public transport vehicles

Outdoor Lighting

- Outdoor Lighting retrofits

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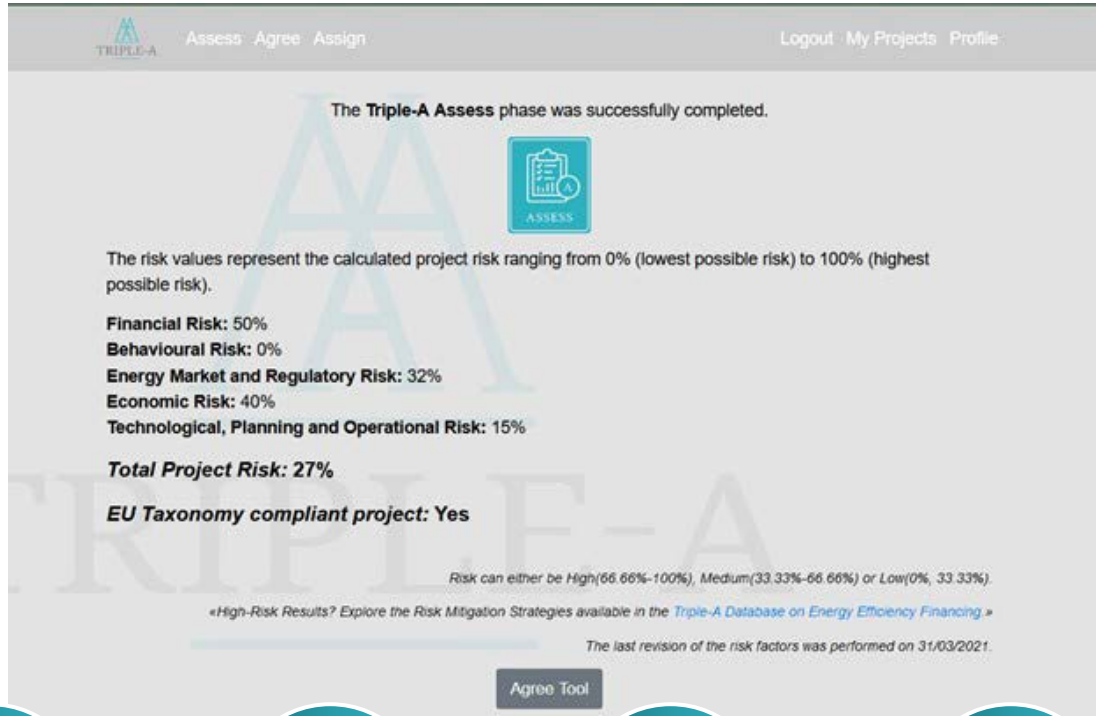
THE ASSESS TOOL (3/4)

TRIPLE-A

Risk assessment

- Aggregation of the identified risks (risk indices with scores 0% - 100%).
- Credit Worthiness Risk can be bypassed.



Behavioural Risk + *Energy Market & Regulatory Risk* + *Economic Risk* + *Technology, Planning & Operational Risk* + *Financial Risk* = Total Risk

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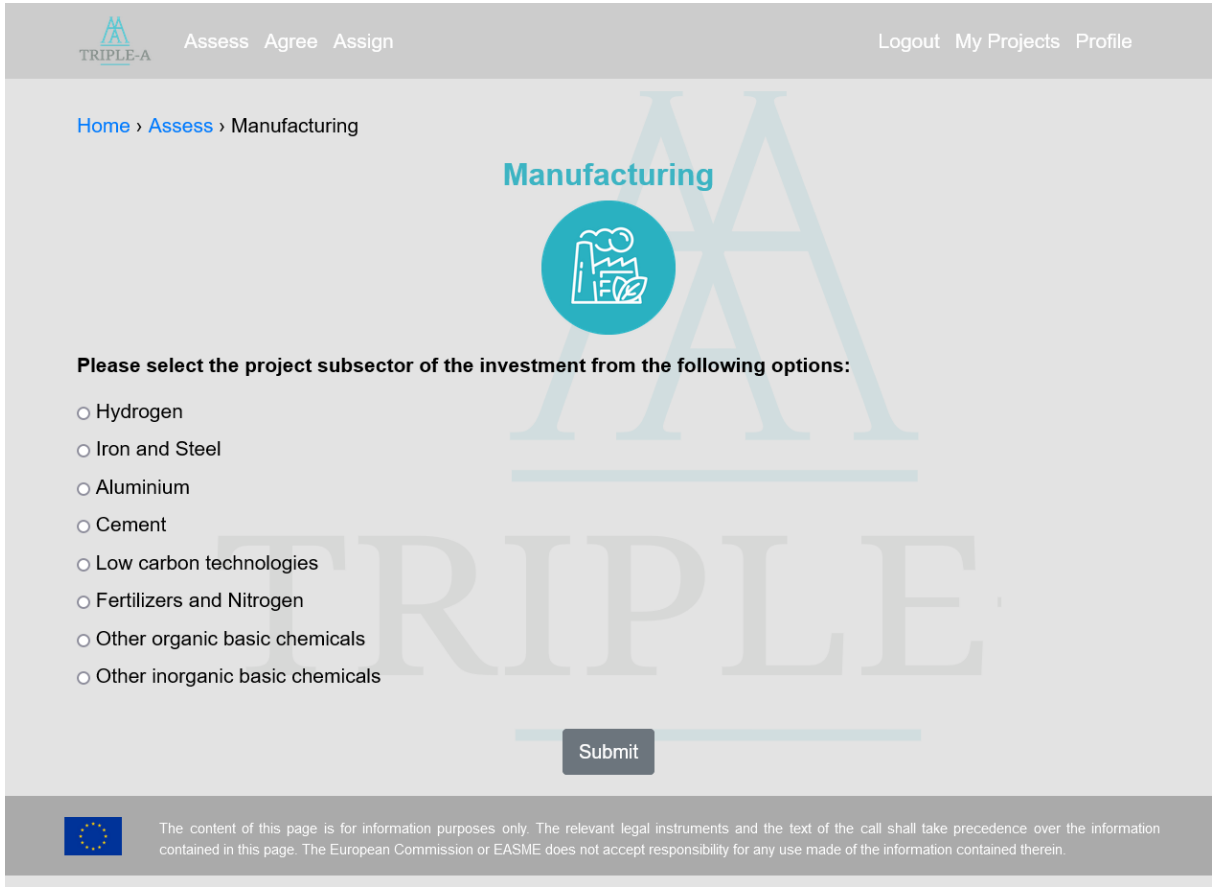
THE ASSESS TOOL (4/4)

EU Taxonomy compliance

Interface of EU Taxonomy checklist:

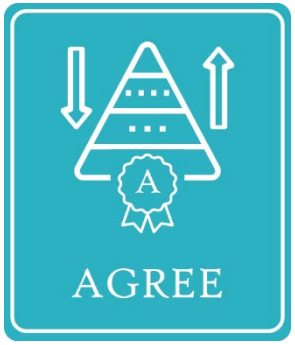
- Incorporation of all EU Taxonomy activities
- Questions parameterised on the project sector.

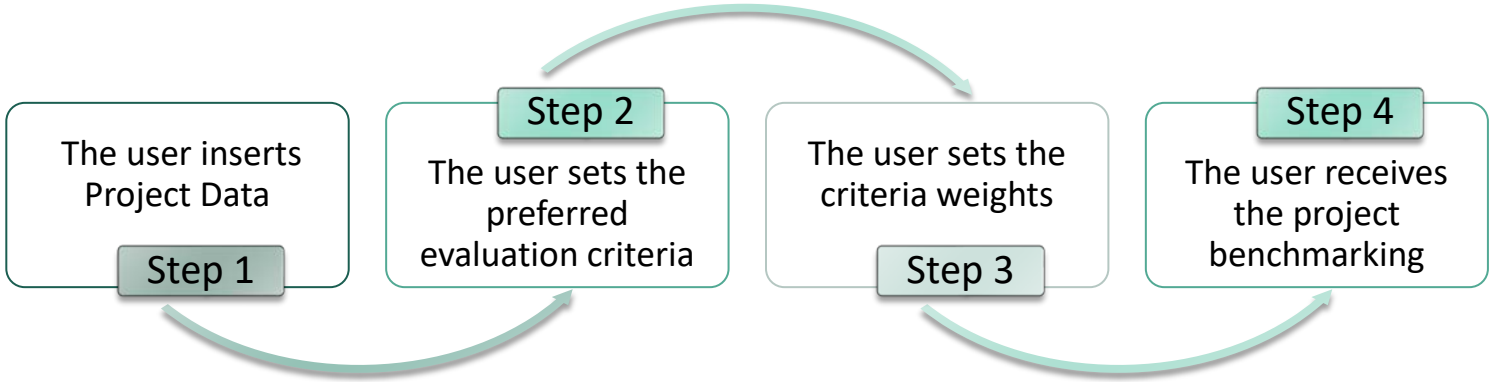


THE AGREE TOOL (1/8)

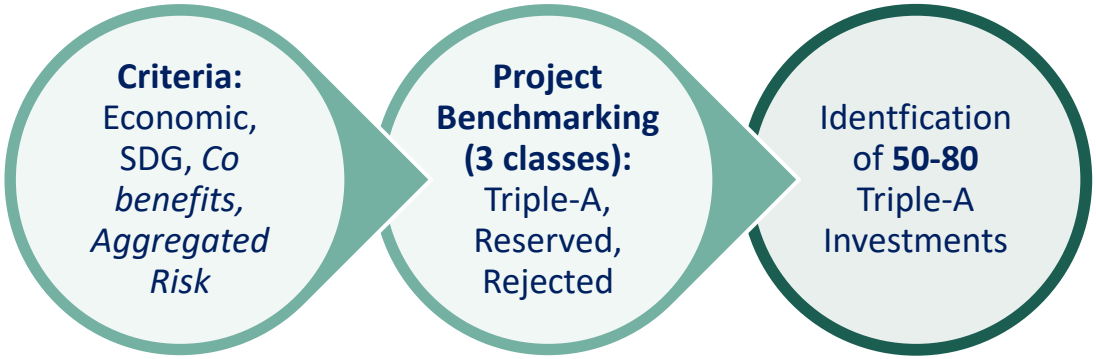
TRIPLE-A

Overview





- 51 Triple-A projects identified.
- Predefined weights and thresholds that user is able to change
- Aggregated Risk value passed on from Assess Tool



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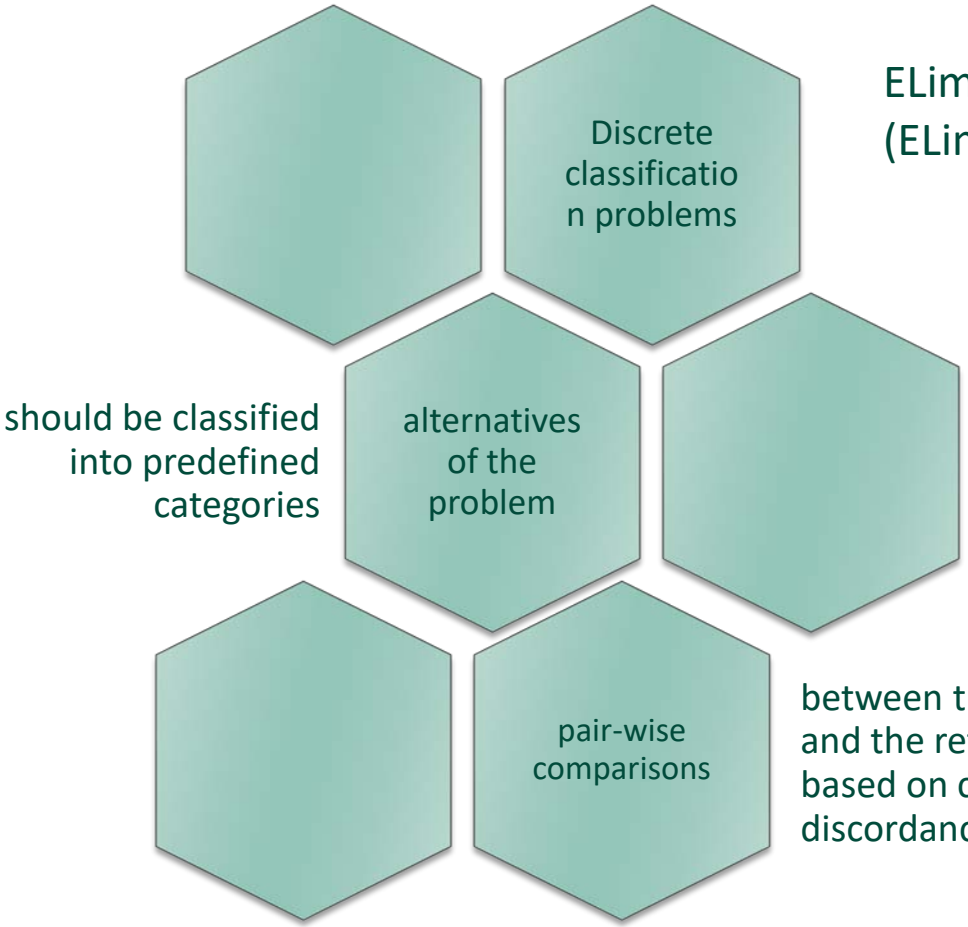
THE AGREE TOOL (2/8)

The MCDA Method: ELECTRE Tri



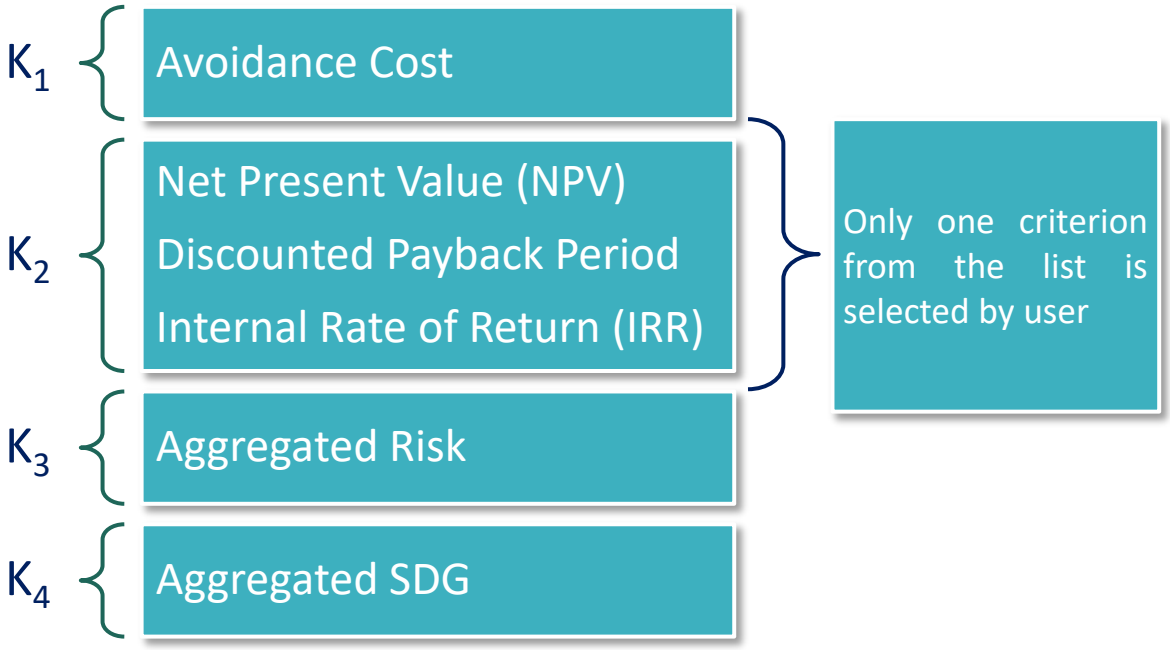
ELimination Et Choix Traduisant la REalité (ELimination Et Choice Translating REality).

- ✓ Handles both qualitative and quantitative data
- ✓ No direct comparisons between alternatives are performed

THE AGREE TOOL (3/ 8)

Evaluation criteria

Fully customizable to user's needs



THE AGREE TOOL (4/8)

TRIPLE-A

Sustainable Development Goals (1/2)

- Utilization of **official Eurostat Data** for the case study countries.
- Aggregation of the applicable SDG criteria for each sector.

Conversion to comparable units → Normalization [0-1] → SDG Criterion calculation

toe → toe/capita

Thousand tones of CO_2 equivalent → Thousand tones of CO_2 equivalent /capital

$$C'_{i,j} = \frac{C_{i,j} - min(C_i)}{max(C_i) - min(C_i)}$$

Where:

$i \in \{1,2,\ldots,11\}$, for each one of the C criteria applicable to the candidate project, and

$j \in \{1,2,\ldots,n\}$, for each one of the case study countries

$$K_4 = \frac{C'_1 + \ldots + C'_n}{n}$$

Where:

n the number of the applicable C'_i for the specific project.

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THE AGREE TOOL (5/ 8)

Sustainable Development Goals (2/2)

- Arrears on utility bills
- Total population living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames or floor
- Population unable to keep home adequately warm
- Primary energy consumption
- Energy import dependency
- Final energy consumption in the industry sector
- Final energy consumption in the transportation sector
- Final energy consumption in other sectors or commercial and public services
- Final energy consumption in households per capita
- GHG emissions from energy consumption
- GHG emissions from the industrial sector

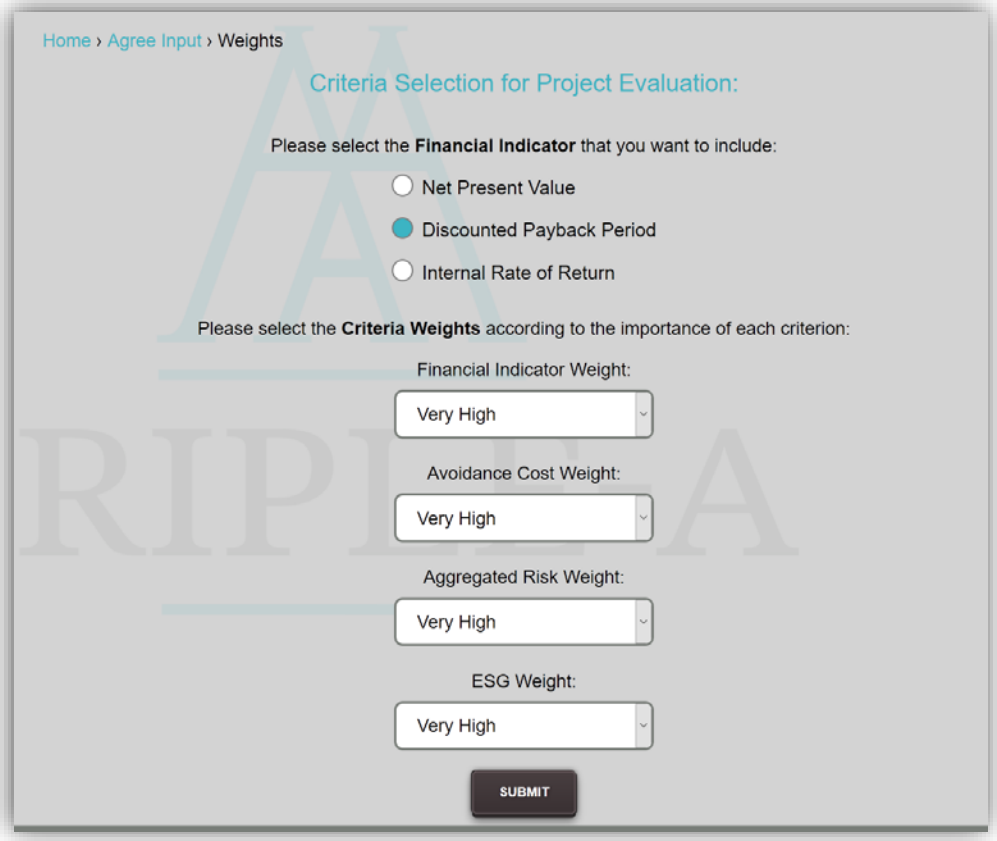
THE AGREE TOOL (6/ 8)

Interface of Criteria selection

- **Avoidance Cost** criterion is used by default

- **5 weight scales:**
  - Very High
  - High
  - Medium
  - Low
  - Very Low

The user is enabled to adjust the weights of the ELECTRE TRI criteria according to the importance of each factor and the user's preferences.



THE AGREE TOOL (7/ 8)

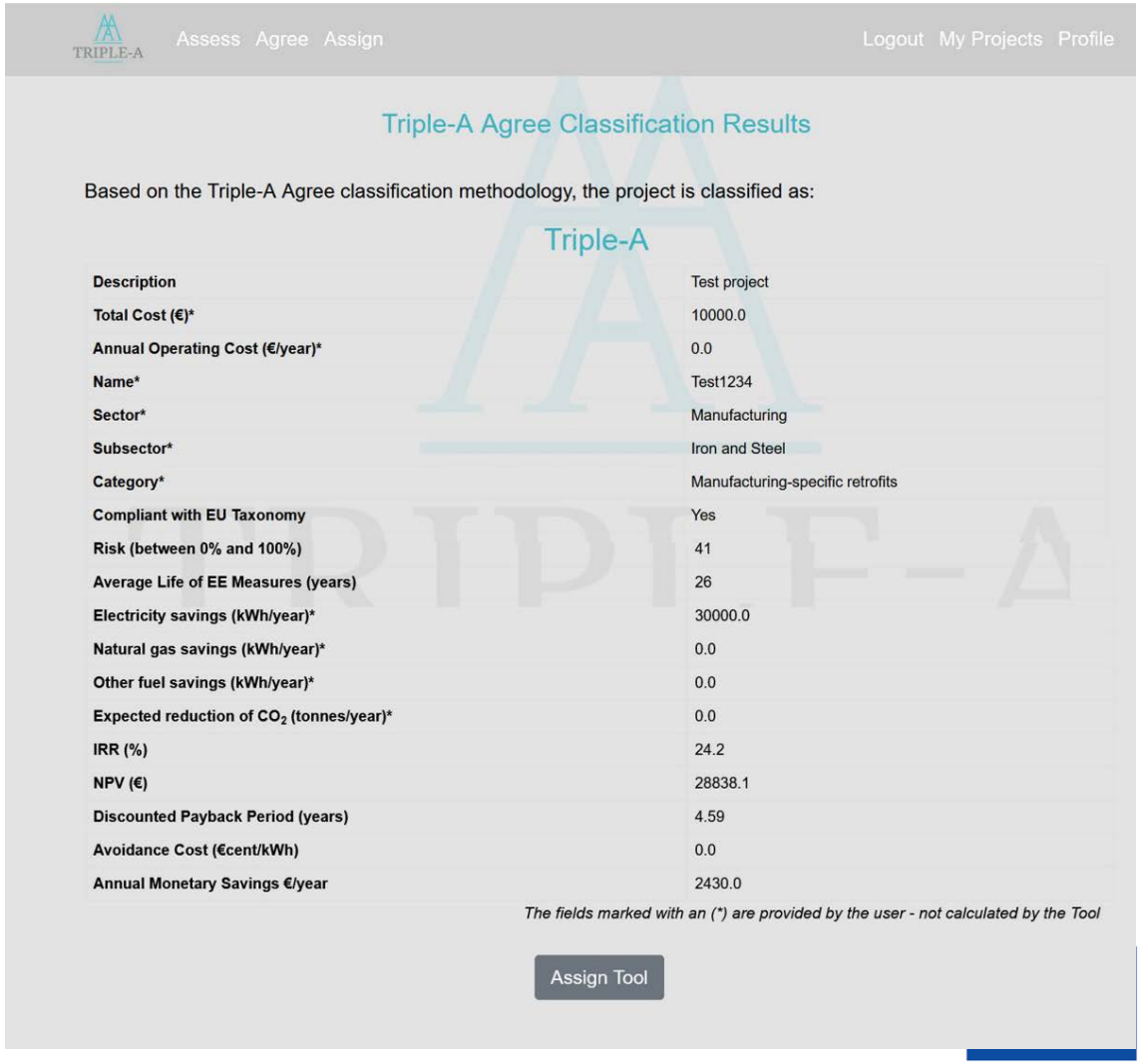
TRIPLE-A

Classification and Results

Categorisation of projects into **3 Classes**:

- Triple-A
- Reserved
- Rejected

Full presentation of the calculated **parameters**. Users can also download the **analytic report**.



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THE AGREE TOOL (8/8)

TRIPLE-A

Project classes

Triple-A	The **Triple-A projects** have an extremely **strong capacity** to meet their **energy saving targets**, already from their conceptual phase (where they are still considered as project fiches from the funding institutes).
Reserved	**Profitable**, but not great projects are grouped. These projects have a good, but **not outstanding** performance in the MCDA criteria.
Rejected	**Unsatisfactory** total performance in the examined criteria. They may have **risk higher than the maximum** threshold, or they not seem capable of **recovering the total investment**.

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THE ASSIGN TOOL (1/3)

Overview

- Achieve the **matchmaking** between bankable energy efficiency projects and financing schemes.
- Formulates the **pathway** to be followed by involved parties to achieve project delivery (contracts, underwriting procedures, etc.).

Targeted beneficiaries:

- **Financing bodies** that are interested in investing in the energy efficiency sector.
- **Energy Efficiency Companies** and **Project Developers** that need to find capital to implement their projects.

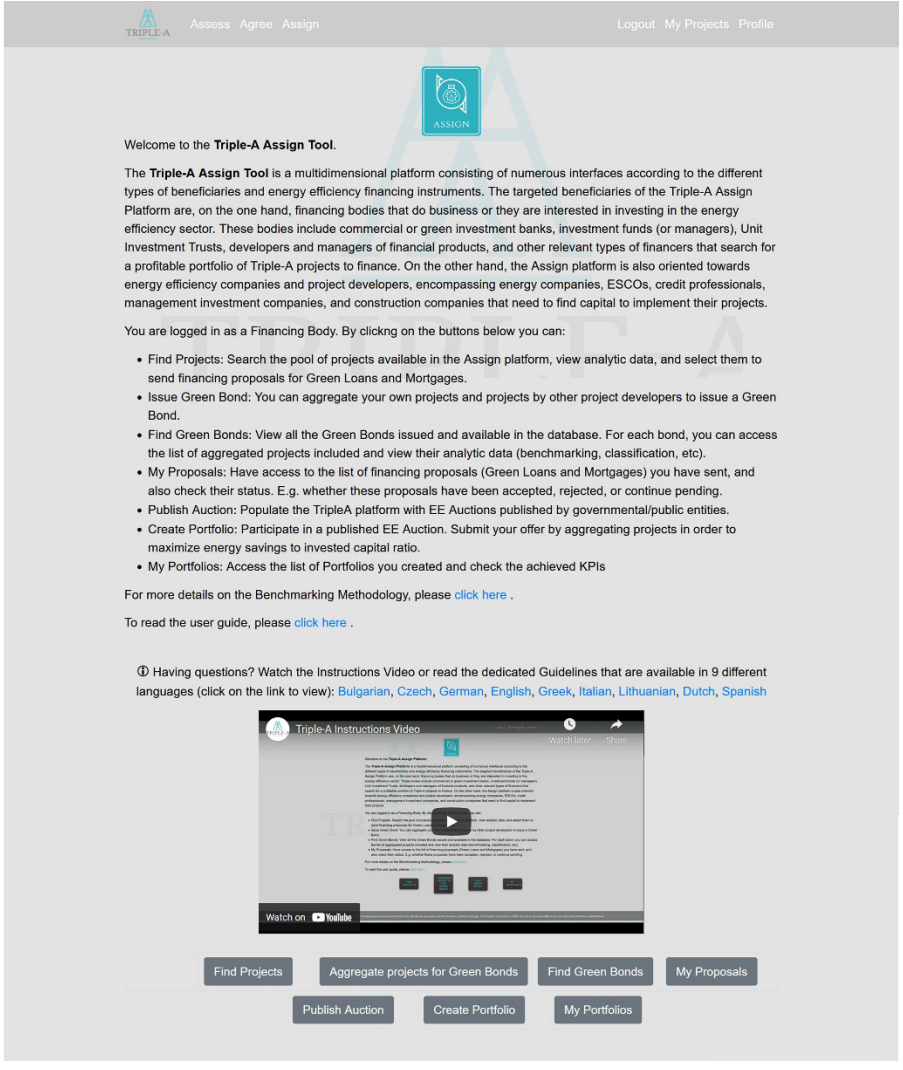
THE ASSIGN TOOL (2/3)

TRIPLE-A

Multidimensional platform

Assign Tool homepage **personalised** to each user. From the homepage, users can:

- **Search** the pool of projects available in the Assign Tool
- **View analytic data** and select them to send financing proposals for Green Loans and Mortgages.
- **Find project** to aggregate
- **Communicate with project developers** in order to proceed to Green Bonds issuance.



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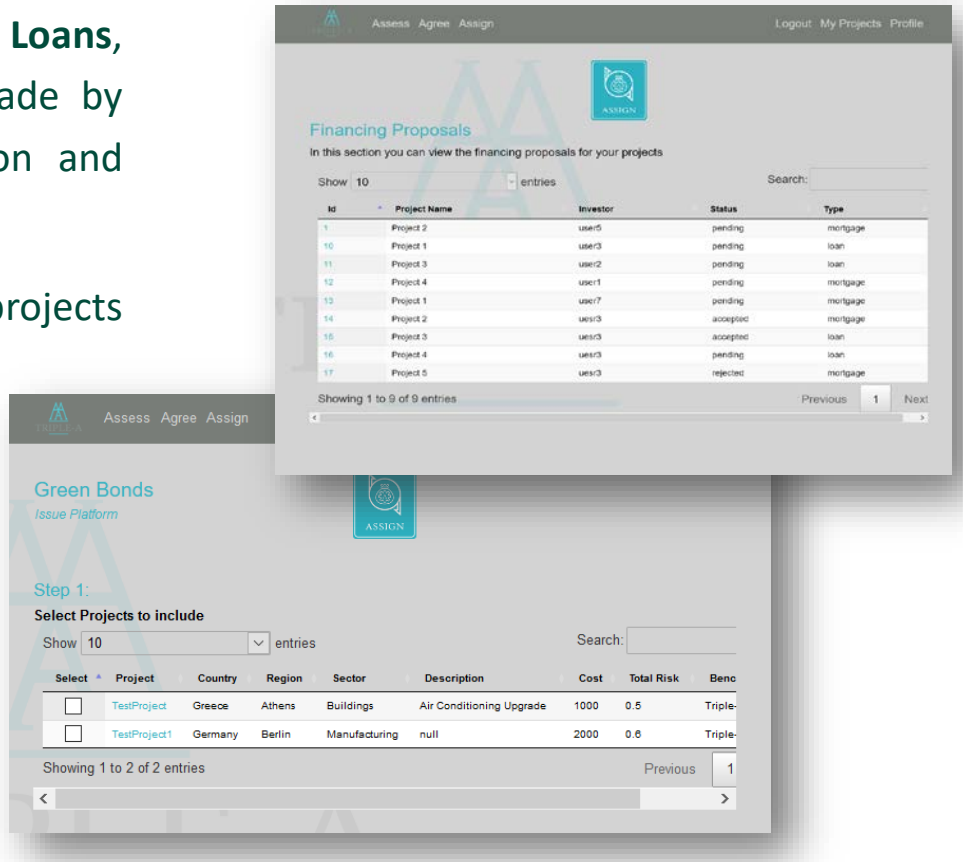
THE ASSIGN TOOL (3/3)

TRIPLE-A

Functionalities

- View the financing proposals for **Green Loans**, **Green Mortgages** and **Green Bonds** made by investor along with relevant information and investor's contact details.
- **Get notified** and access the list of their projects that have been selected by investors.
- **Explore Green Bonds** issued and available in the Assign Tool's database to buy. For each bond, they can access the list of aggregated projects included and view their analytic data (benchmarking, classification, etc.).



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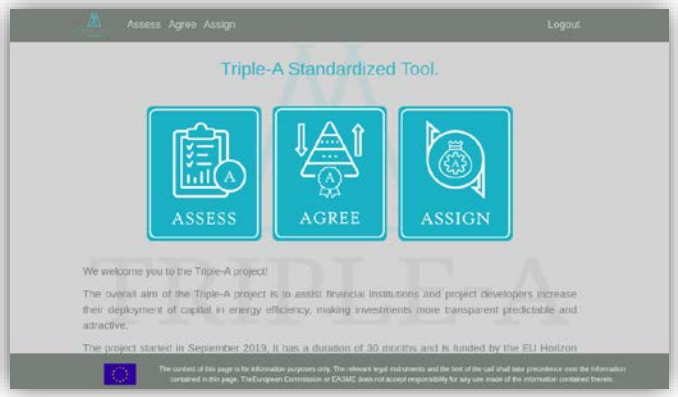
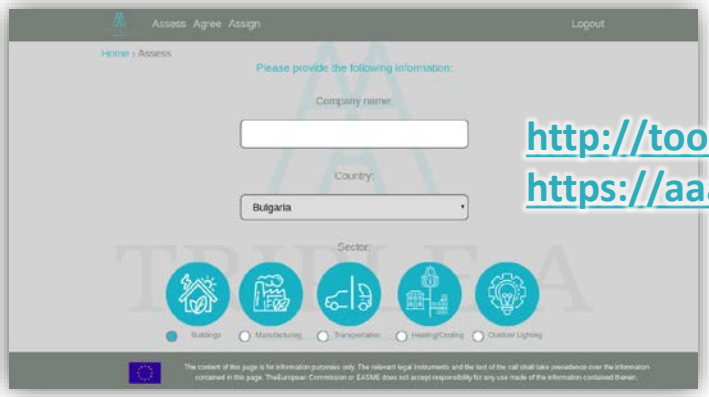
EXPLORE THE TRIPLE-A TOOLS

TRIPLE-A

Standardised Triple-A Tools





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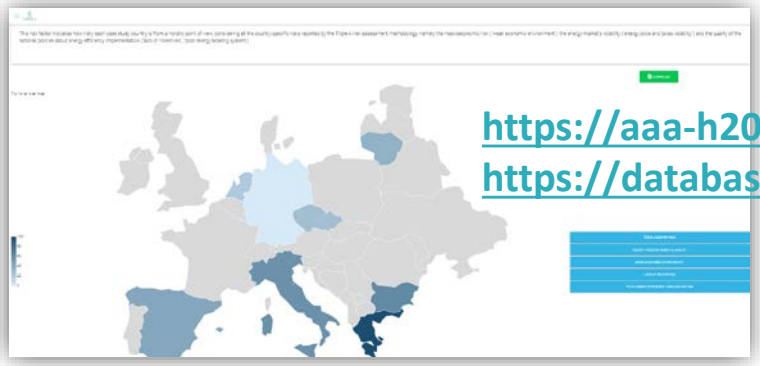
Web-based Database on Energy Efficiency Financing



https://aaa-h2020.eu/database
https://database.aaa-h2020.eu/

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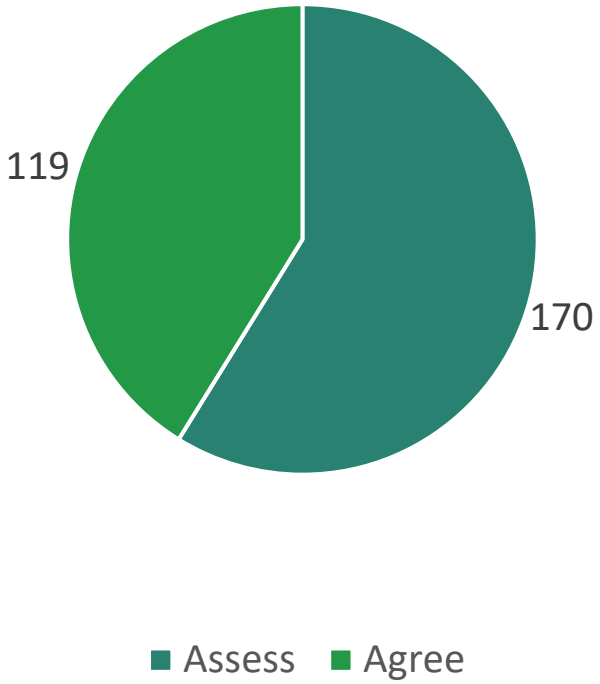
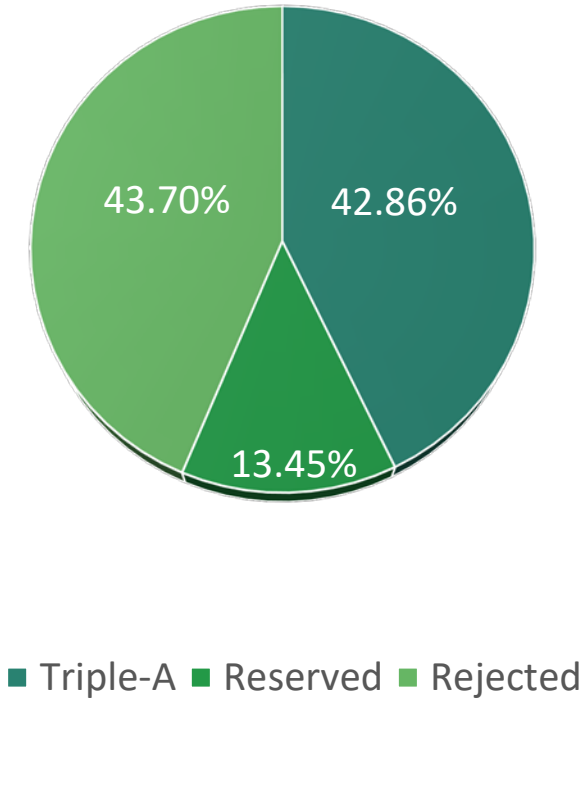
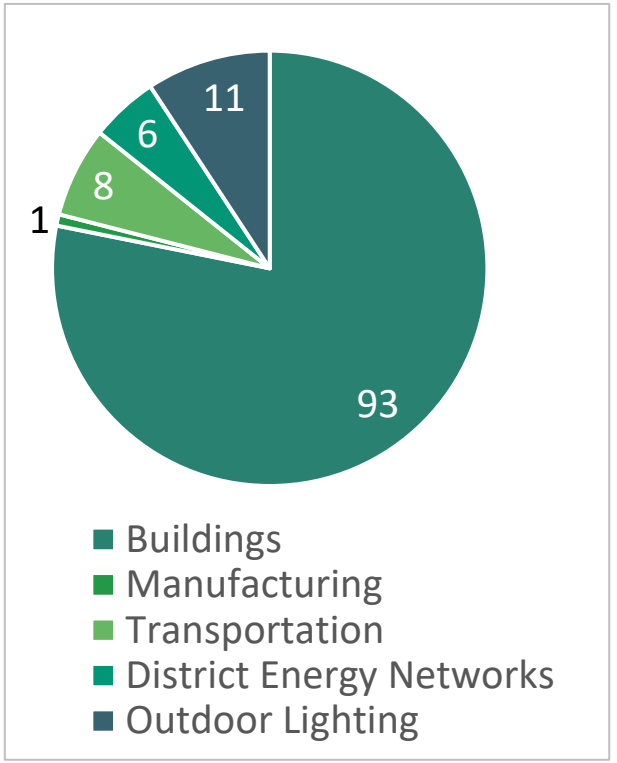
RESULTS (1/10)

TRIPLE-A

Classification of projects (in numbers)







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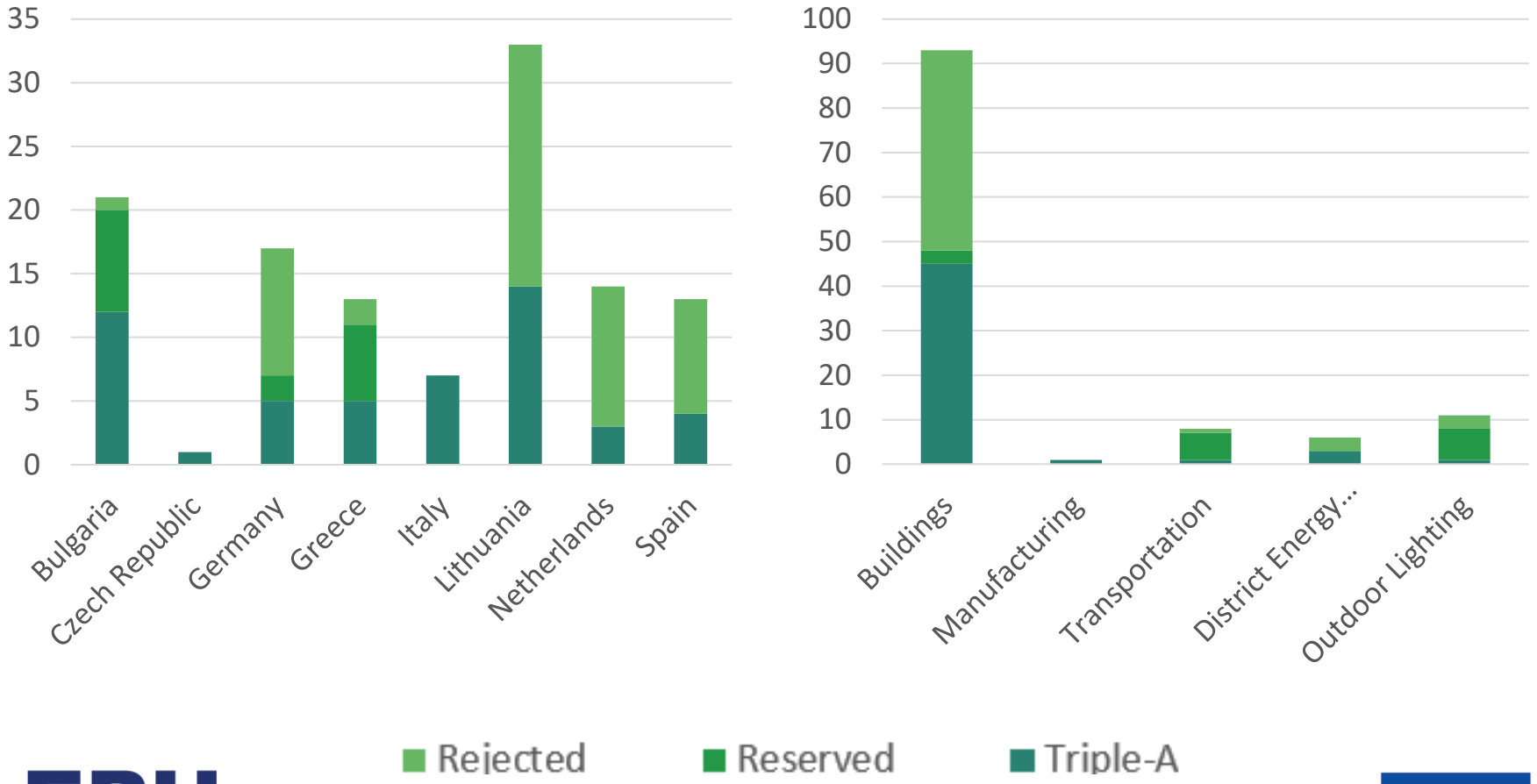
RESULTS (2/10)

TRIPLE-A

Classification of projects (in numbers)



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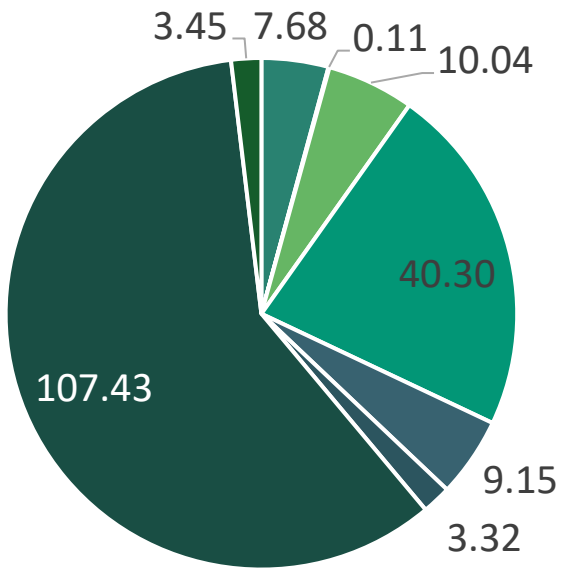
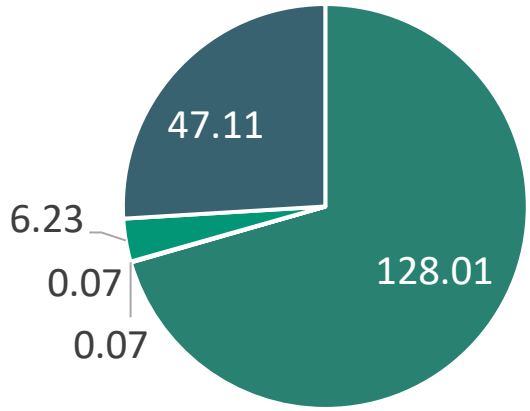
RESULTS (3/10)

TRIPLE-A

Expected Reduction of CO_2 in kilotonnes per year



- Bulgaria
- Czech Republic
- Germany
- Greece
- Italy
- Lithuania
- Netherlands
- Spain



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

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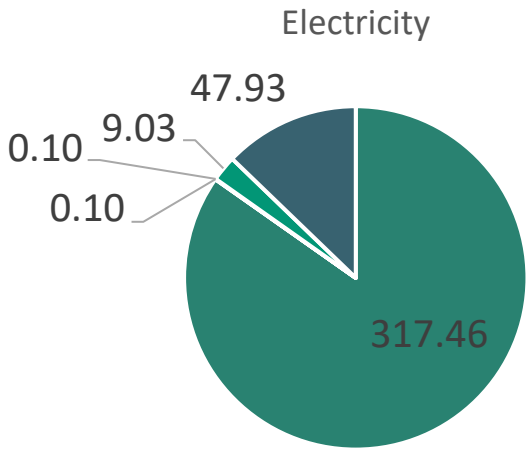
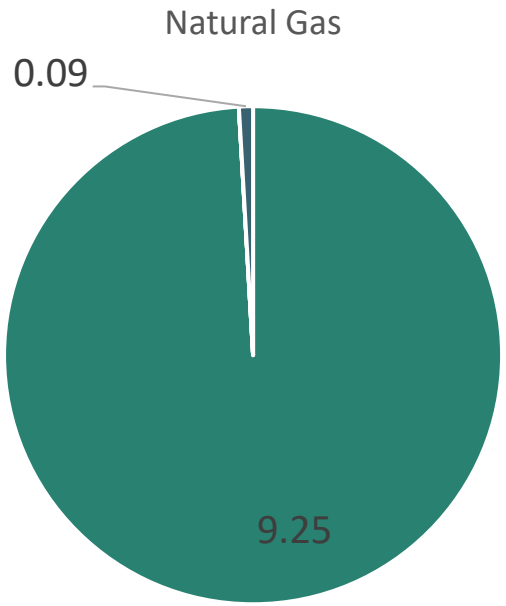
RESULTS (4/10)

TRIPLE-A

Energy saving per GWh/ year





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

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

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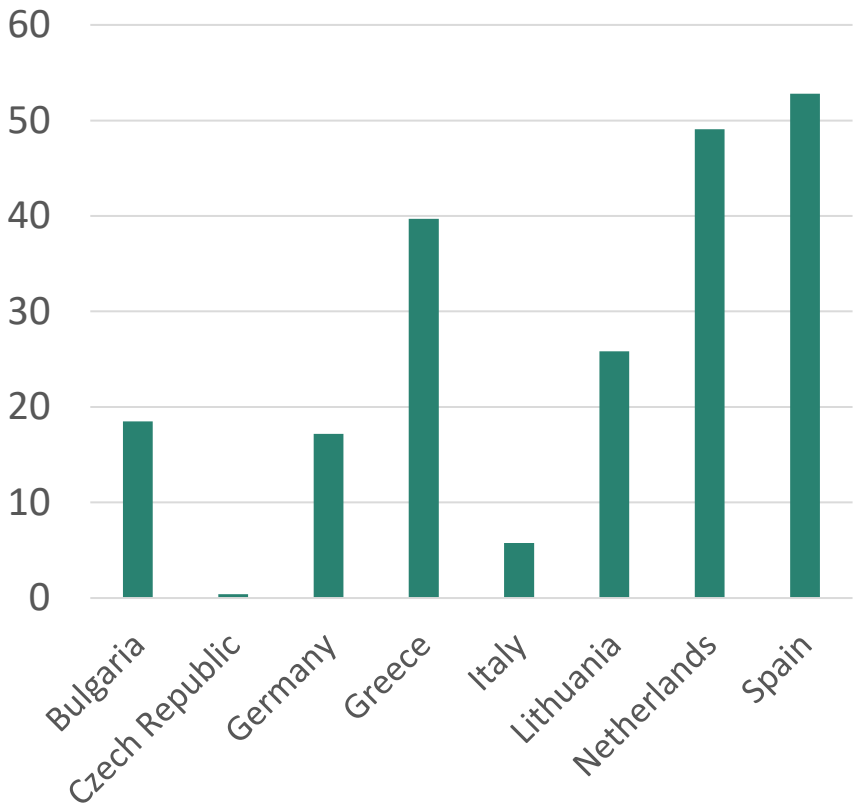
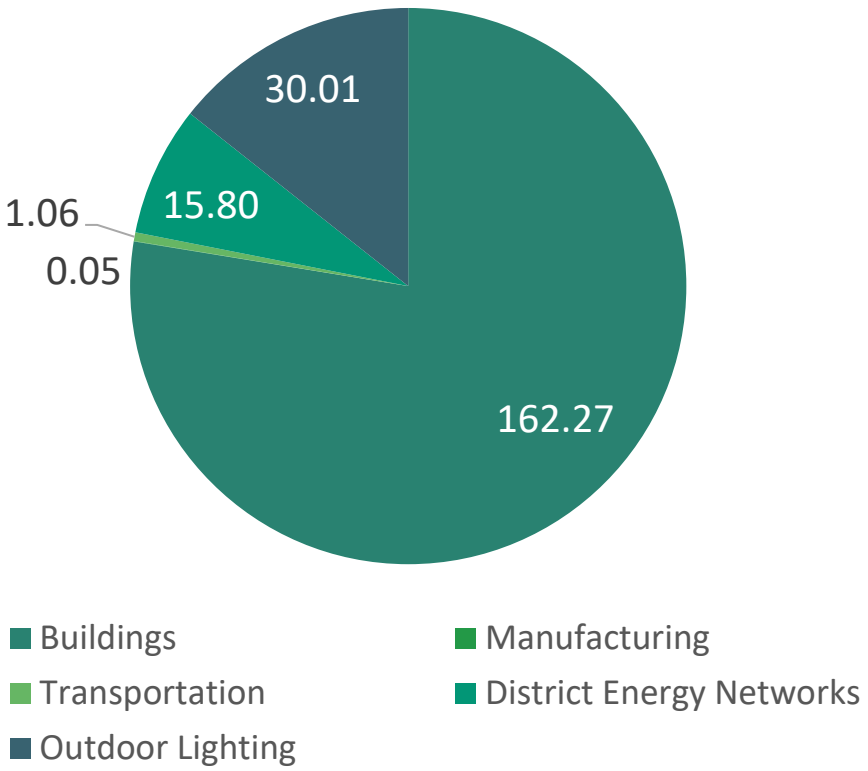
RESULTS (5/10)

TRIPLE-A

Total investments cost in million EUR





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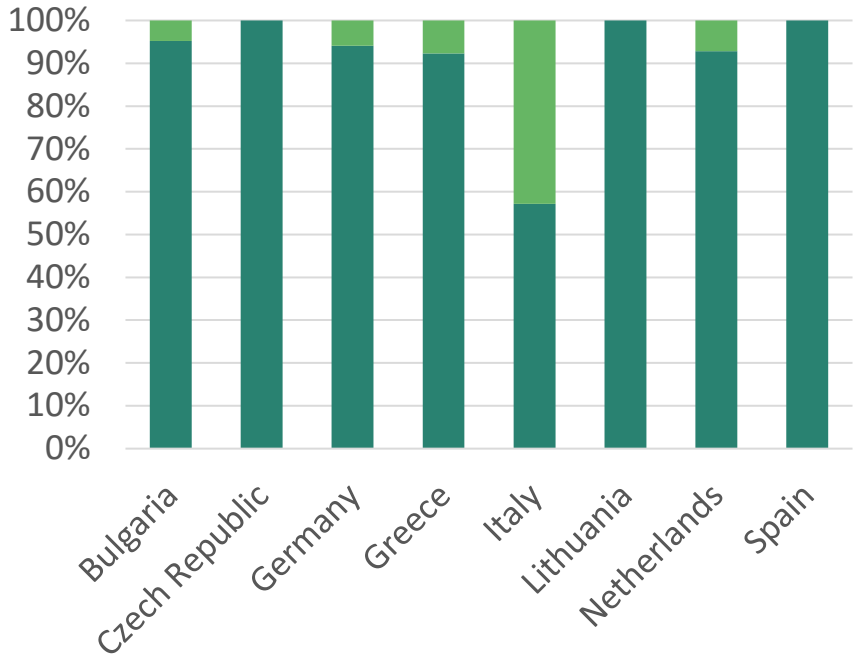
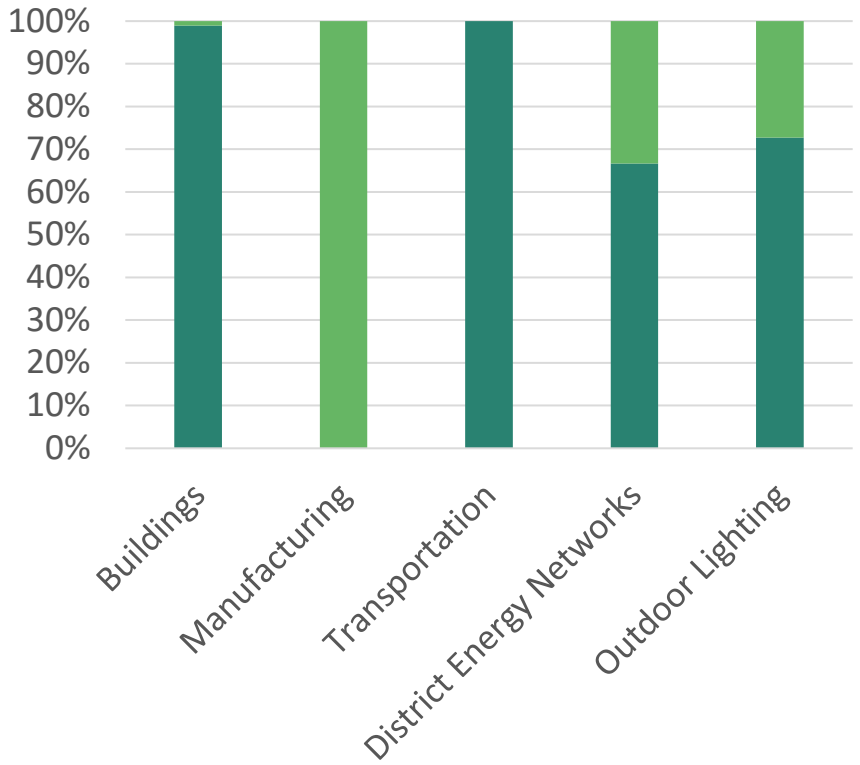
RESULTS (6/10)

TRIPLE-A

Percentage of projects compliant with EU Taxonomy





Taxonomy Compliant Non-Taxonomy Compliant

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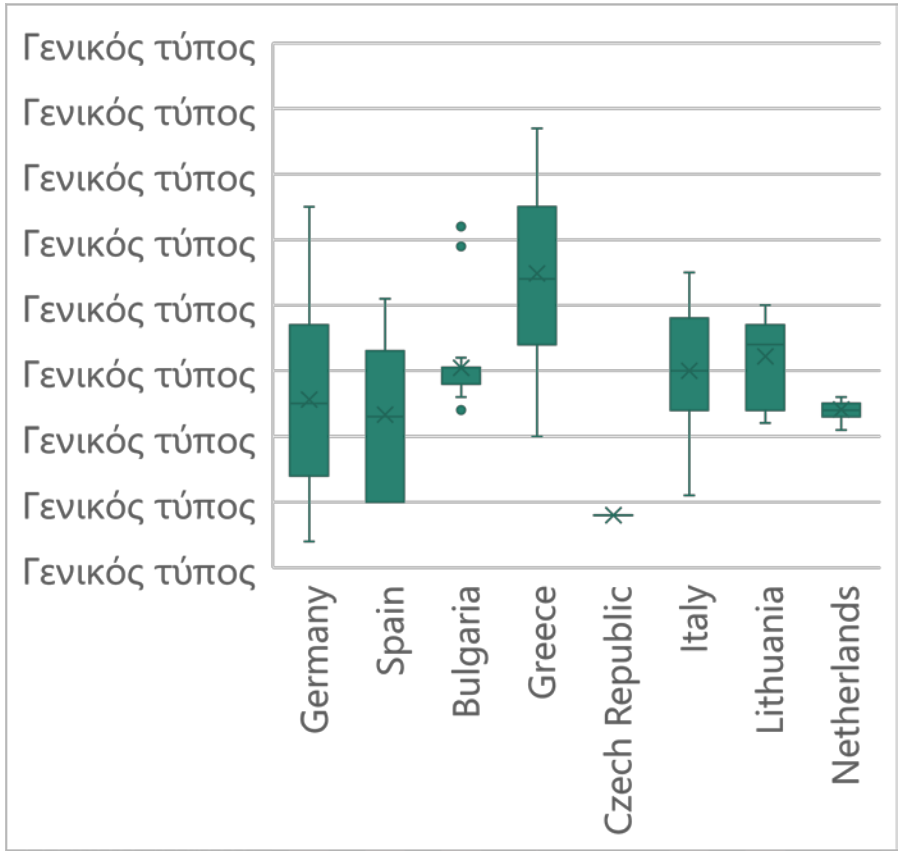
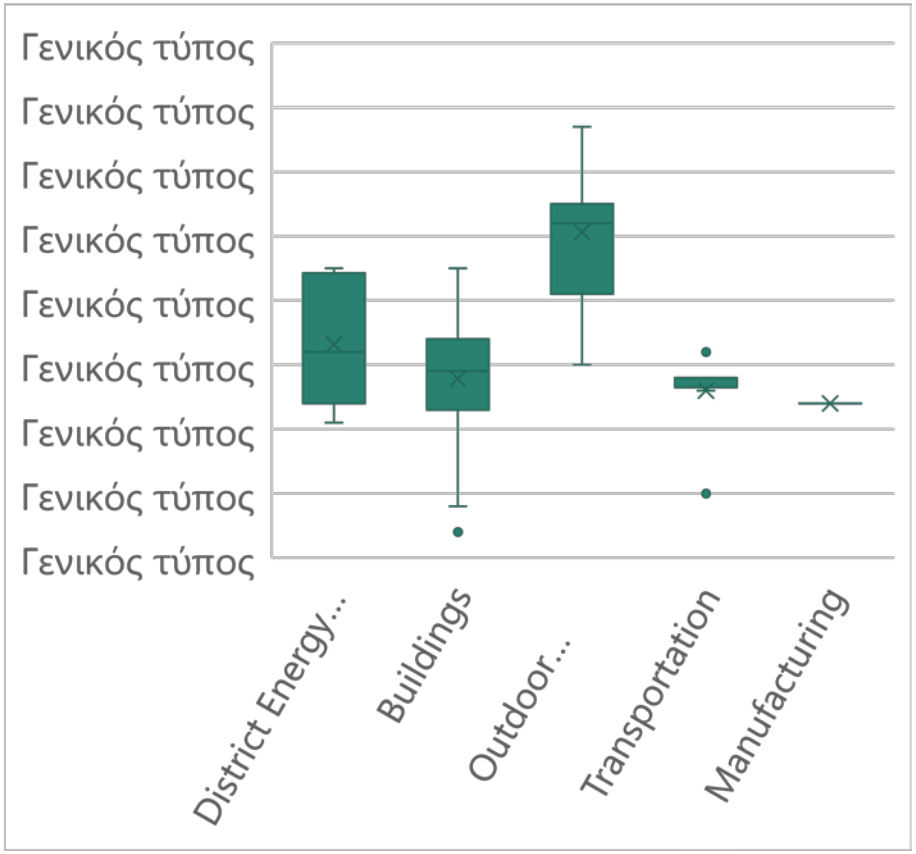
RESULTS (7/10)

TRIPLE-A

Project Risk (0-1)





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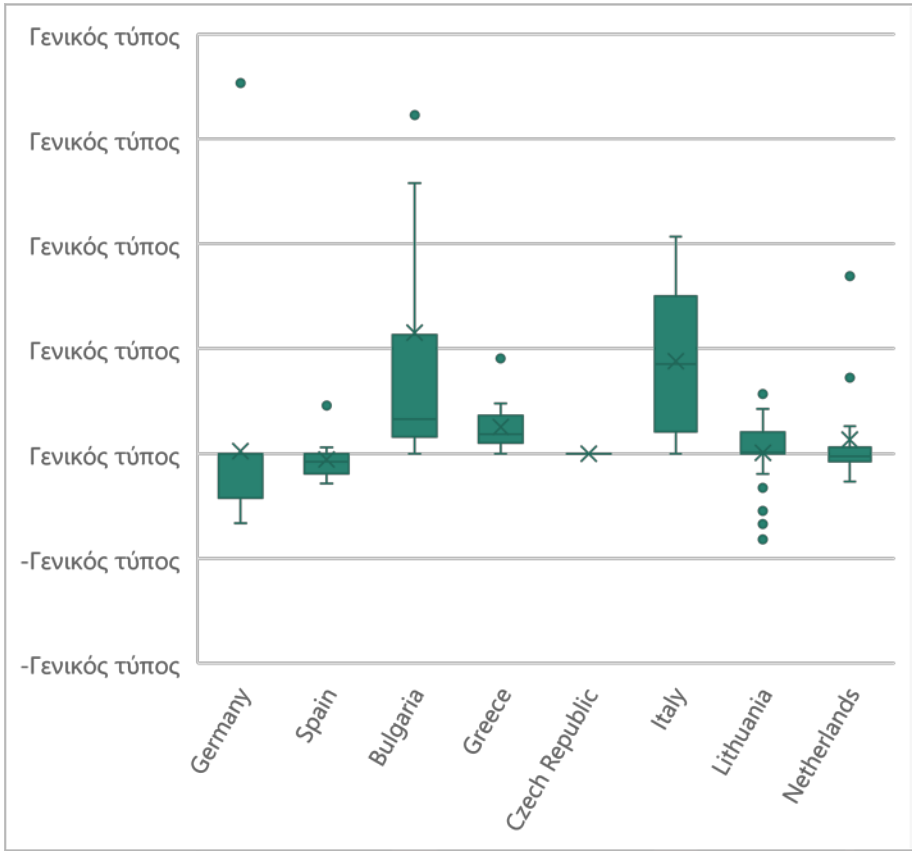
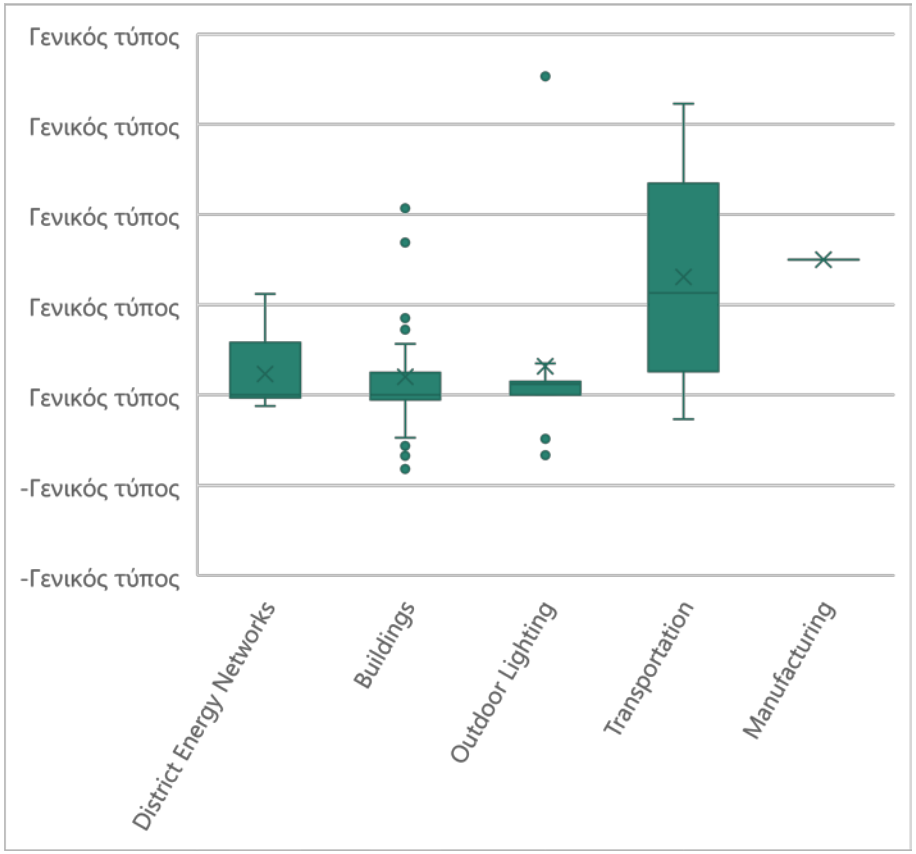
RESULTS (8/10)

TRIPLE-A

Internal Rate of Return (%)





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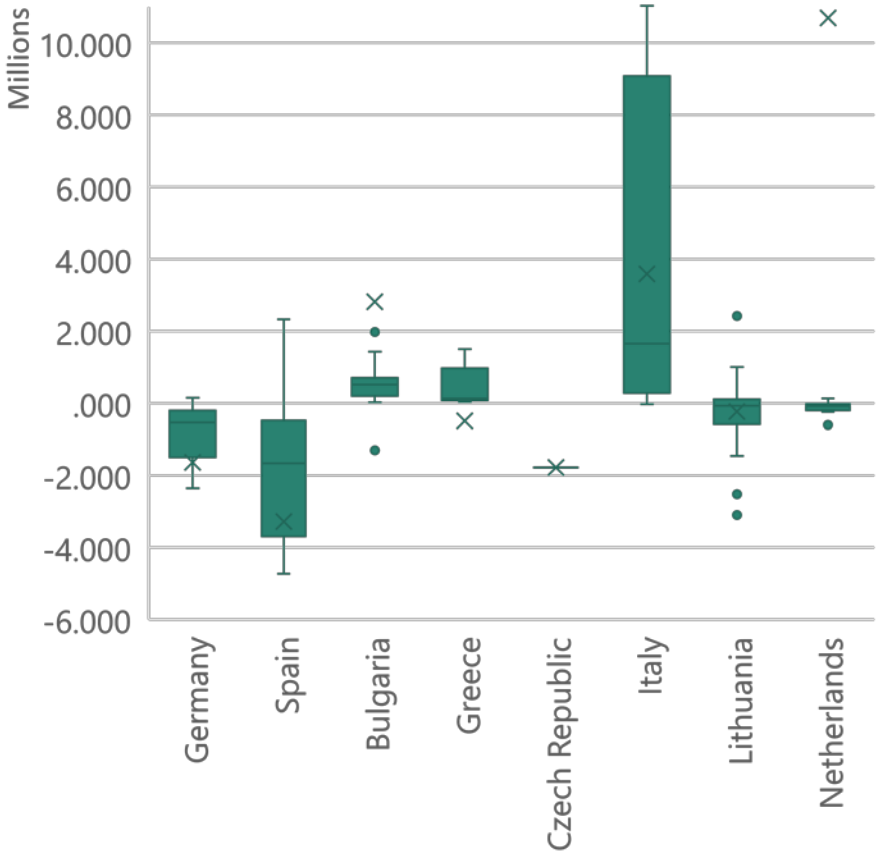
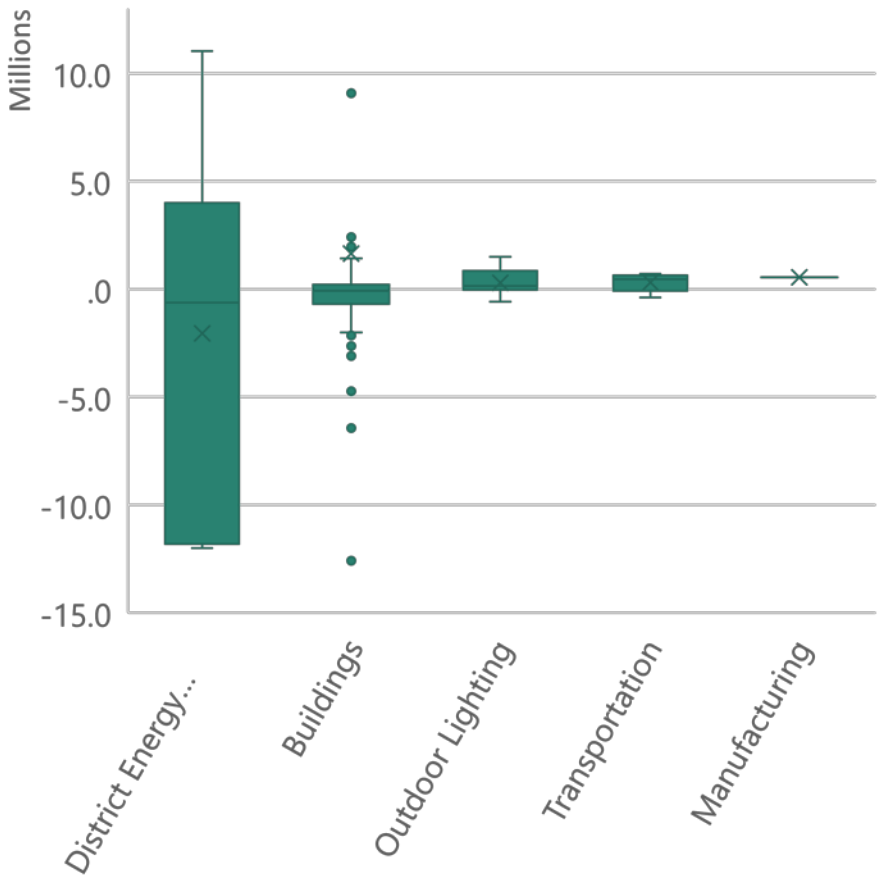
RESULTS (9/10)

TRIPLE-A

Net Present Value (Million EUR)





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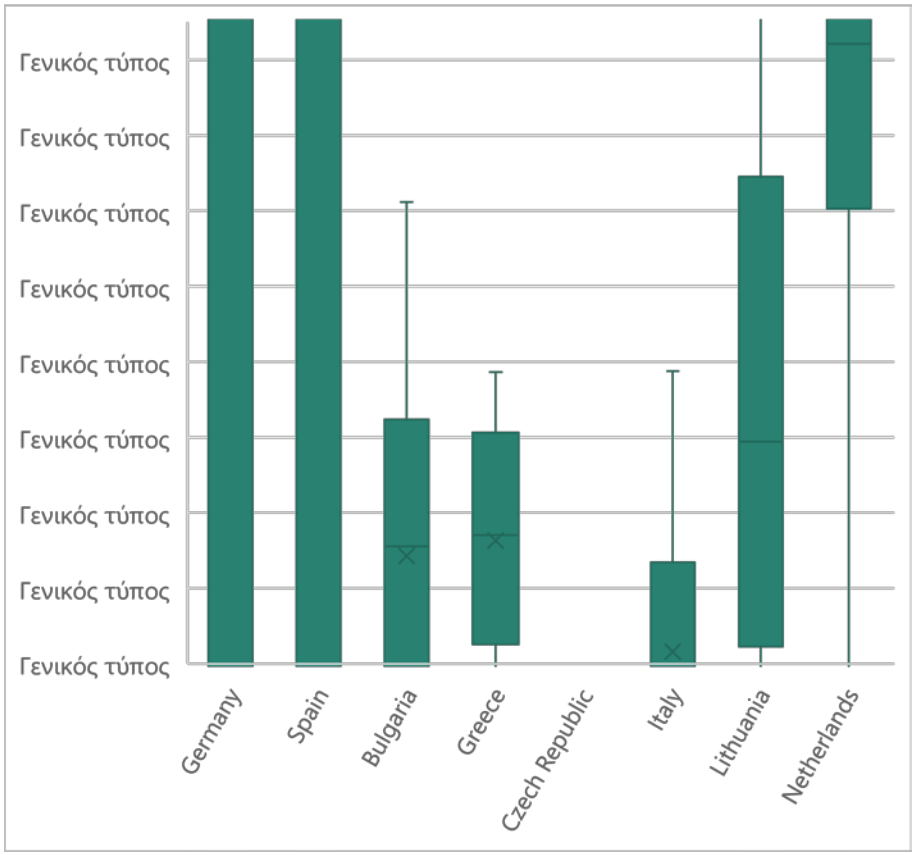
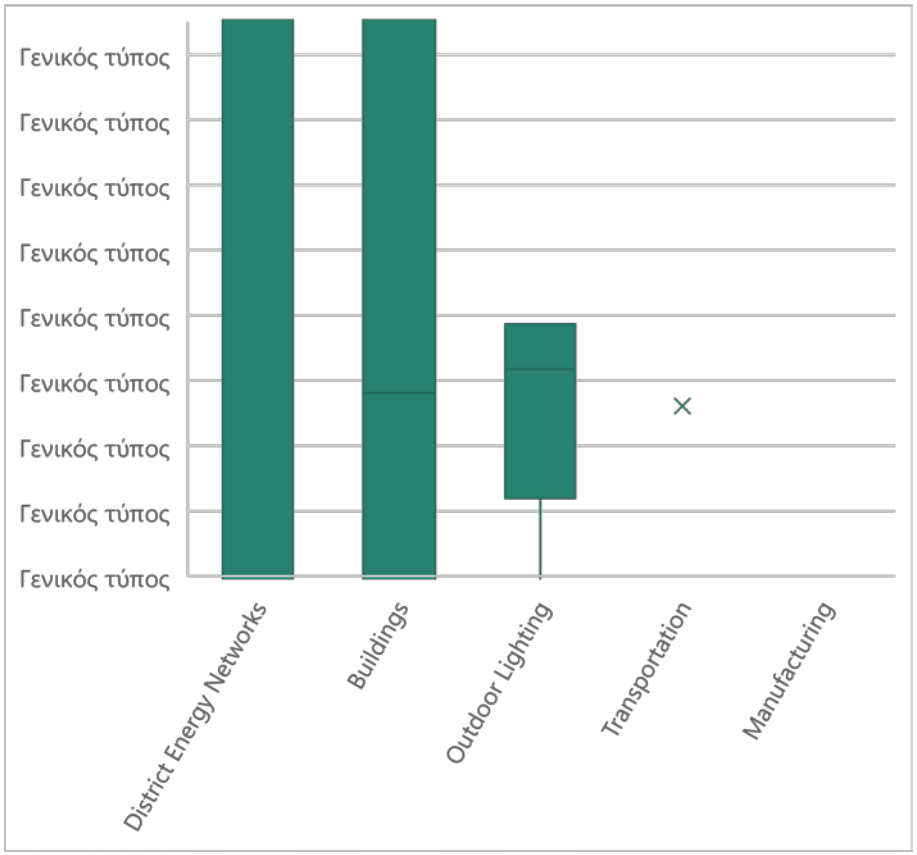
RESULTS (10/10)

TRIPLE-A

Discounted Payback Period (years)





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CONCLUSIONS (1/3)

- Although the majority of projects in the Triple-A Tools are compliant with the EU Taxonomy, stakeholders declared that it is not widely used yet.
- There is a significant impact on the profitability of EE investments and **uncertainty about the estimated cash flows of EE projects** emerging from the fluctuating energy prices.
- Policymaking should stir towards the standardisation of project design to make the EE projects' replicability easier. Standardisation could be achieved by establishing a common (even pan-European) framework of EE project fiches, **EE project benchmarking and underwiring procedures.**

CONCLUSIONS (2/3)

TRIPLE-A

Added value to stakeholders:

- **Project developers**: Substantiate the financial performance of their promising EE project ideas
- **Investors and financing institutions**: gain confidence - identify eligible project ideas according to their preferences in specific criteria.

In total:

- Increase credibility and leverage of EE projects.
- User-friendly benchmarking tool: comfortable and not time-consuming.
- Valid KPIs and standardized calculation parameters.

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CONCLUSIONS (3/3)

TRIPLE-A

- **Replication of projects, either in terms of financing or/and technical solutions**, is highly desired. Similar projects allow project developers to demonstrate the proof of concept, promote them as a product, and minimise development costs.
- Another significant instrument that has provenly assisted EE projects financing is project aggregation. **Aggregation of EE projects** seems to be more critical than other issues, as it has a positive impact on risk assessment and could provide economies of scale.
- **Building confidence between project developers and investors** is critical for the implementation – and decision making of EE projects. This could be achieved by introducing standardised underwriting methods, standardised energy efficiency contracts and a stable economic environment regarding energy prices and/or energy taxes.

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TRIPLE-A PROJECT'S OUTCOMES

TRIPLE-A

- Enhancement of the investors' interest and capacity building paving the way for financing Triple-A Investments
- Triple-A rating system fostering energy efficiency investments at an early stage
- KPIs and benchmarks for the identification of Triple-A investments
- Interactive Web-Based Database on Energy Efficiency Financing
- Links with energy efficiency certification schemes
- Promoting European priorities and targeted policy actions on leveraging private funding

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

TRIPLE-A

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

TRIPLE-A

Recommendation for policy framework & Sustainability

Exploitation Strategy & Future Perspectives

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Policy framework

CONCLUSIONS

TRIPLE-A

- EU member states seek to reduce their external energy dependence
- Countries with more stable economic conditions are undergoing a massive transformation and shift towards renewable energies and sustainability
- Slow economic recovery countries have recently started to pay attention on the EE and embracing the green transition
- Large number of financing schemes for large-scale EE renovations
- The largest group of projects identified is the Buildings sector
- Schemes that are attractive to FIs need to be promoted, standardisation is essential

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POLICY RECOMMENDATIONS

Plenty of energy efficiency **opportunities exist**, but **don't get financed** due to structural problems in the sector. The following recommendations have been drawn up to address the main barriers detected:

- Vague or **misleading national regulations** should be amended to avoid situations of uncertainty that create bottlenecks.
- **Standardisation of procedures** can strengthen trust between developers and funders and make pre-financing processes cheaper
- It is important to mainstream the use of **new financial tools** specific to the EE sector (such as Triple-A)
- Priority should be given to energy efficiency investments in the **industry and buildings** sector as they have a greater potential to achieve energy savings

POLICY RECOMMENDATIONS

Plenty of energy efficiency **opportunities exist**, but **never get financed** due to:

- The irruption of the **EU Taxonomy and ESG criteria** is expected to become a driver for investments in the EE sector.
- **Aggregation of energy efficiency projects** seems to be also critical as it has positive impact on risk assessment processes.
- Unified **creditworthiness system** will drastically simplify and speed up the necessary upstream processes for the financing of projects.

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

TRIPLE-A

Exploitation Strategy

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OBJECTIVES

As stated in the GA (Task 6.3) there are three main blocks to be addressed in this task in relation to the exploitation and financial sustainability of the Triple-A database and tools:

- The proposal of several **business models** that allow the financial sustainability of the platform in a balanced way with a rational cost for the users.
- The development of an **overall exploitation plan** including milestones to be achieved after the end of the project for all EU MS.
- The design of an **integration strategy** for the Triple-A Database and Tools into EE project funding platforms and other related services.

The **Key Exploitable Results (KERs)** methodology will be the approach followed to address the definition of the Exploitation Strategy for the Triple-A database and tools.

RESULTS

TRIPLE-A

- Selection of the most promising results of the project
- Triple-A Standarised Tools
- Triple-A Database

Exploitable Results selection

- Joint Exploitation
- The focus should be on raising funds from the Tools through specific paid features and allowing the free and open use of the Database to strengthen and attract a user base
- Depending on the funding needs, related ads could be placed in the database

Bussines Plan & Monetisation Strategy

- The outcomes are aimed to be of maximum utility to all stakeholders in the sector (Triple-A certification, benchmarks, methodology, database etc.)
- Triple-A's interoperability capability has been successfully tested by transferring projects to the DEEP platform

Integration Strategy

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

TRIPLE-A

Thank you!

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Triple-A H2020 PROJECT
FINAL EUROPEAN ROADSHOW

TUESDAY 10 MAY 2022 (ONLINE)

SMAFIN
Smart Financing Implementation

THEMATIC SESSION 1: TRIPLE-A CONTRIBUTION TO ENERGY EFFICIENCY FINANCING

Triple-A Synergy Projects Promoting Energy Efficiency Investments

Alice Corovessi
Managing Director INZEB
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SMAFIN project at a glance

Coordinator: CRES (GR)
Partners: INZEB (GR), EnEffect (BG), REGEA (HR) and ENERO, Cluster pRO nZEB (RO)

The three-year H2020 project **SMAFIN**, which commenced on 1 September 2020, **has as its primary goal the constructive connection of smart financing with energy efficiency projects involving stakeholders from governmental financial, enterprise and academic sectors.**

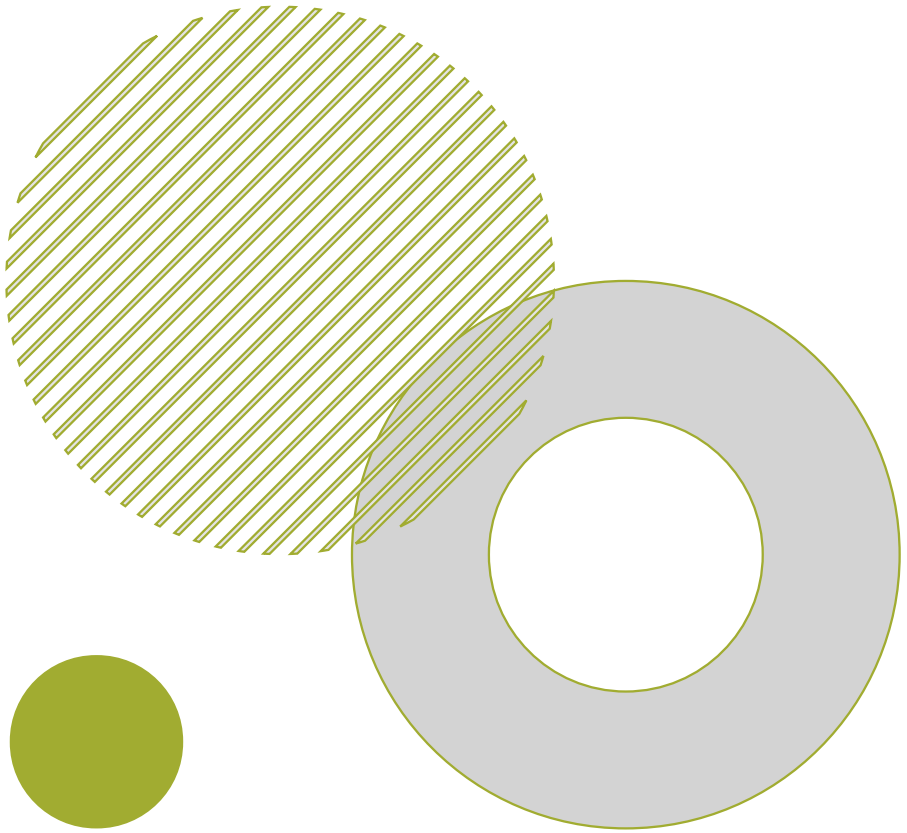
Having as a reference point the **Sustainable Energy Investment Forums (SEIF)**, SMAFIN's project activity is to **create a complete roundtable methodology** and implement it in the four participating countries – Bulgaria, Croatia, Greece and Romania.

The concept of SMAFIN relies on the creation of permanent discussion forums **on energy efficiency investment topics in buildings, infrastructure, industry and SMEs** in order to advance cross fertilisation between key stakeholders.

The formation of the forums will contribute to setting up the **prosperous ground for constructive dialogue, upscaling existing best practices at national and European level and further developing energy policy measures with a focus on the creation of new market initiatives.**

SMAFIN's primary objective is to **inform and engage all categories of stakeholders** to actively participate in permanent national roundtables and in the project in general, contributing to its further success and beyond the project's duration.

The main objectives



- **Capitalisation of the results of Sustainable Energy Investment Forums I** - customising the previous gained knowledge and the results to the current framework and opportunities.

- **Deployment of energy efficiency investments recommendations** - partners will develop national recommendations for effective and applicable policy measures or financial instruments to be given to policy makers at all levels and/or financial institutions.

- **Link all supporting initiatives and stakeholders focused on energy efficient investments** - potential access to public and private funds for energy efficiency projects by showcasing best practices and supportive mechanisms, networking stakeholders and implementing concrete solutions.

- **Deliver impact beyond its typical duration by:**
  i. Passing its expertise and commitment for the continuation of the National Roundtables to a National Body in each country;
  ii. by maintaining the SMAFIN facilitating platform for the dissemination of news, initiatives and practices.

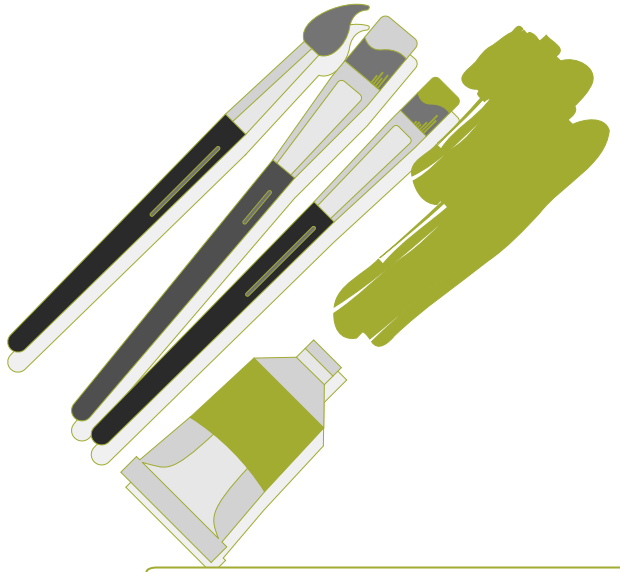
PRIORITIES AT EU LEVEL

- Promotion of SMAFIN in supporting and implementing smart financing building renovation.
- Support the increase of the renovation rates across the European Union with energy efficiency standards.
- Implementation of EU energy policies.

PRIORITIES AT NATIONAL LEVELS

- Familiarise national stakeholders and energy professionals with SMAFIN aims and objectives.
- Awareness about the benefits of energy efficiency renovations in buildings, industry and SME sectors.
- Upgrading the connection between renovation of buildings and the quality of life.
- Awareness of the national legislative frameworks.

Core activity framework



SMAFIN will organise in each participating country:

- 3 national roundtables focused on energy efficiency investments, and
- 6 working group meetings during the project's life span.

Design and establish the SMAFIN permanent national roundtables in the four participating countries: Bulgaria, Croatia, Greece, Romania.

Trigger discussion & draw conclusions.

Build knowledge capacity among the stakeholders.

Enhance networking among the stakeholders.

Support potential synergies & common implementation activities.

Support higher level decision making providing policy recommendations in energy efficiency financing.


SMAFIN
Smart Financing Implementation
1st National Roundtable in Bulgaria
FACTSHEET
"CLIMATE AND ENERGY:
POLICIES AND FINANCIAL MECHA
FOR SUSTAINABLE DEVELOPME
IN THE NEW PLANNING PERIO
Wednesday May 19 2021
Organised by EnEffect
and supported by
the Municipal Energy Efficiency Network EcoEnergy
with representatives from the Ministry of Regional
Development and Public Works and the
Sustainable Energy Development Agency
(an executive agency under the Ministry of Energy)
SMAFIN project has received funding from the European Union's HORIZON
2020 research and innovation programme under Grant Agreement No 955857.
SMAFIN
Smart Financing Implementation
1st National Roundtable in Croatia
FACTSHEET
"FINANCING ENERGY EF
MEASURES AND DEEP RE
OF PUBLIC BUILDIN
IN THE REPUBLIC OF C
Thursday 21 Januar
Organised by
REGEA
SMAFIN project has received funding from the European Uni
2020 research and innovation programme under Grant Agre
SMAFIN
Smart Financing Implementation
1st National Roundtable in Greece
FACTSHEET
"SUPPORTING THE IMPLE
OF SMART FINANC
FOR ENERGY EFFICIENT
IN GREECE"
Thursday 20 May
Organised by
CRES and INZEB
Held under the auspices
the Hellenic Ministry o
Environment and Energ
SMAFIN project has received funding from the European
2020 research and innovation programme under Grant A
SMAFIN
Smart Financing Implementation
1st National Roundtable in Romania
FACTSHEET
"FINANCING SOLUTIONS FOR THE
ENERGY RENOVATION OF BUILDINGS"
Thursday April 15 2021
Organised by
ENERO and Pro-nZEB
in partnership with
the Department of Sustainable
Development - Government of Romania,
the Ministry of Investments and European Projects
and the Ministry of Development,
Public Works and Administration.
SMAFIN project has received funding from the European Union's HORIZON
2020 research and innovation programme under Grant Agreement No 955857.

BULGARIA: 16-17 MARCH 2022

- Municipal energy management systems and their role in attracting funding
- Attracting funding for RES projects – challenges and solutions for energy cooperatives
- Unleashing financing for building renovation through involvement of energy poor households

CROATIA: 13-14 APRIL 2022

- Financing energy efficiency measures in multi-apartment buildings
- Financing energy efficiency measures in the industry
- New European Bauhaus

GREECE: 14 APRIL 2022

- Financing energy efficiency in residential buildings
- Financing energy efficiency in public buildings
- Taxonomy

ROMANIA: 12 APRIL 2022

- Integrated renovation services for residential and public buildings
- Energy efficiency in industry
- Development and operationalization of financial instruments needed for the long-term renovation strategy

BULGARIA: 16-17 MARCH 2022

- Municipal energy management systems and their role in attracting funding
- Attracting func… RES projects – challenges and solutions f…
- Unleashing fin… through involve…

GREECE: 14 APRIL…

- Financing ener…
- Financing ener…
- Taxonomy

CROATIA: 13-14 APRIL 2022

…asures in multi-

…ures in the

…residential and public buildings

- Energy efficiency in industry
- Development and operationalization of financial instruments needed for the long-term renovation strategy

FACTSHEETS PRESENTING THE MAIN FINDINGS OF THE 2nd ROUND OF NATIONAL ROUNDTABLES WILL BE AVAILABLE BY END OF JUNE 2022
WWW.SMAFIN.EU

SMAFIN
Smart Financing Implementation

SMAFIN H2020 Project

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smafinproject

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Triple-A H2020 PROJECT
FINAL EUROPEAN ROADSHOW

TUESDAY 10 MAY 2022 (ONLINE)

THEMATIC SESSION 3: STAKEHOLDERS' PERSPECTIVES
ENERGY EFFICIENCY INVESTMENTS IN THE BUILDING SECTOR

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WE SPEND 90% OF OUR LIVES IN BUILDINGS

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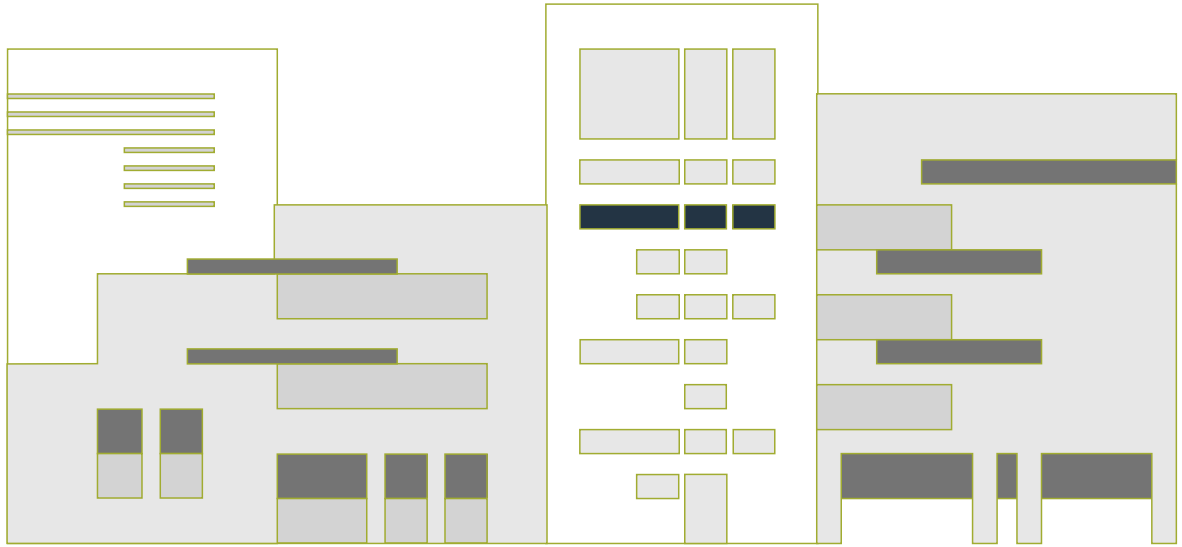

BUILDINGS ARE RESPONSIBLE FOR NEARLY 36% OF CO_2 EMISSIONS IN THE EU

AND FOR 40% OF ENERGY DEMAND IN THE EU

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9 OUT OF 10 OF EXISTING BUILDINGS WILL BE STANDING AND OCCUPIED BY 2050

THE CURRENT AVERAGE RENOVATION RATE IS 1% EACH YEAR

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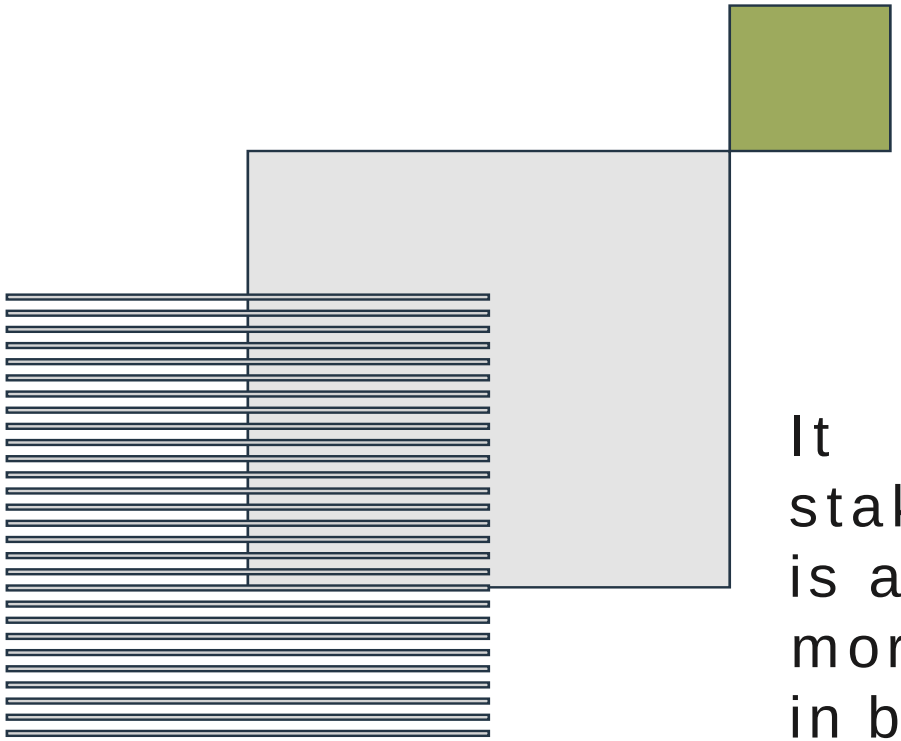
‘ENERGY EFFICIENCY FIRST’ PRINCIPLE



Taking utmost account of cost-efficient energy efficiency measures in shaping energy policy and making relevant investment decisions.

It is commonly agreed by numerous stakeholders and interested parties that there is a huge, under-tapped opportunity to create a more sustainable environment when investing in buildings’ efficiency.

More efficient buildings can generate economic benefits, reduce environmental impacts and improve people’s quality of life.

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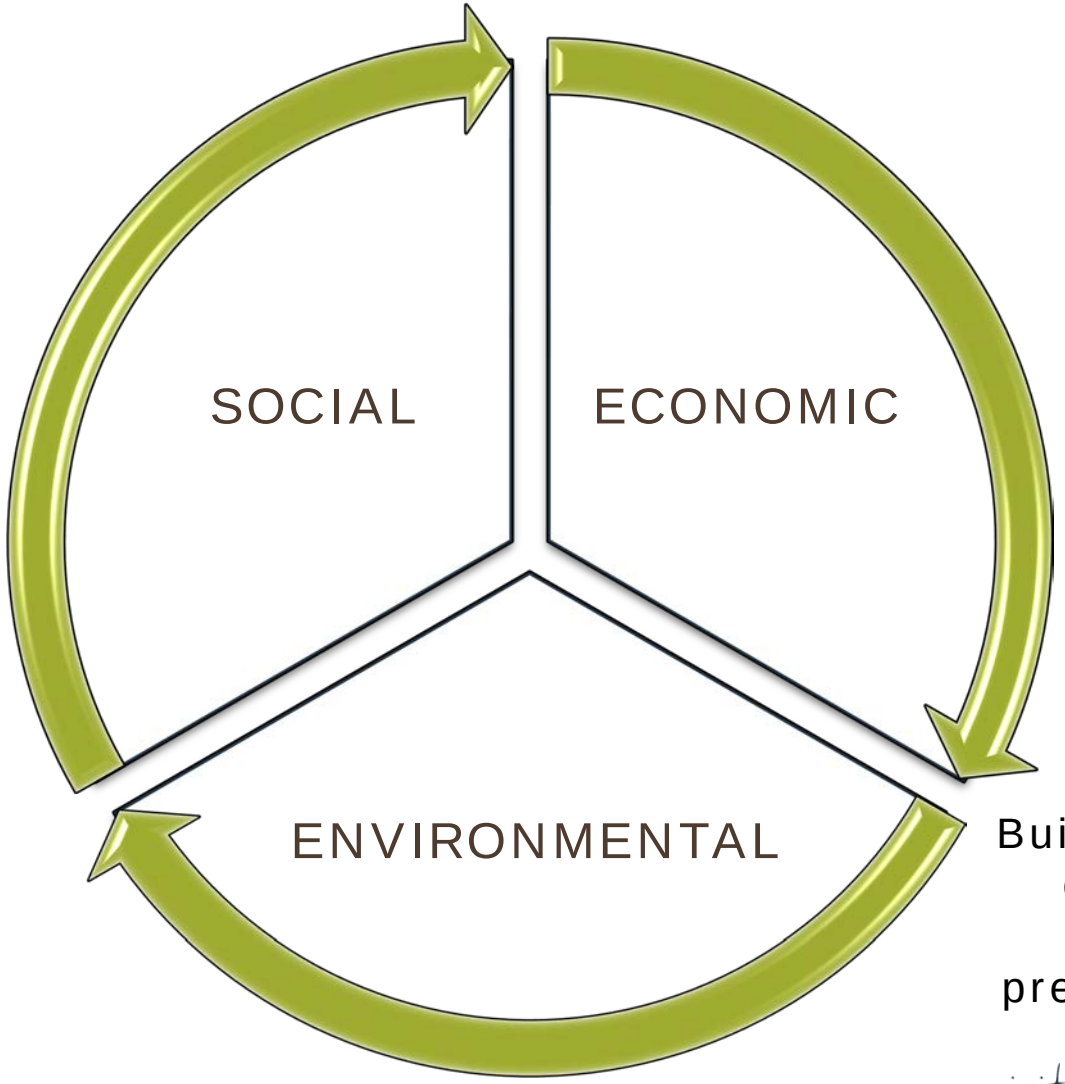
BENEFITS

Building efficiency can improve people's quality of life, especially for low-income residents and create opportunities for better health and increased productivity.



Improved buildings' efficiency can reduce costs, improve productivity and help create jobs for people.

Buildings' efficiency increases energy productivity, cuts emissions and reduces pressure on natural resources in cities

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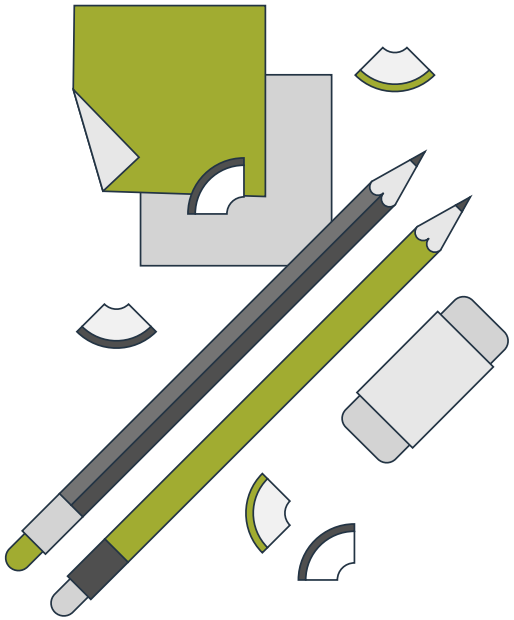
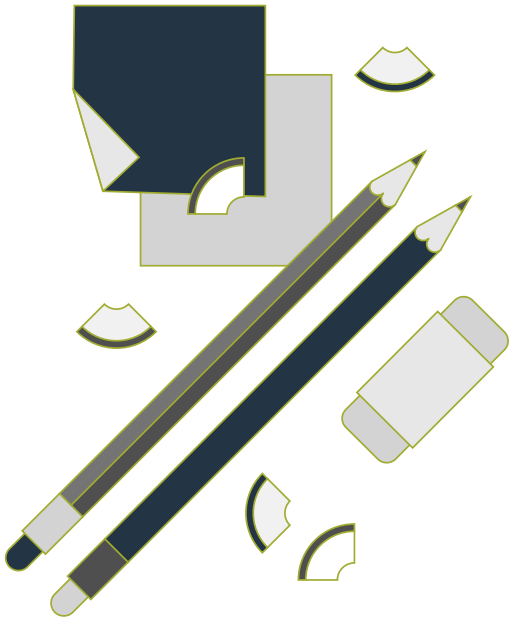
ECONOMIC



- ✓ Increasing efficiency in buildings is one of the most cost-effective ways to improve built environment. For each €1 invested, a saving of €2 in new electricity generation and distribution costs is estimated.
- ✓ Investments in energy efficiency in the building sector are also considered as job-creator.
  Several studies estimate that that a 27% increase in energy efficiency in Europe by 2030 - compared to 2005 levels - would result in 2 million new jobs. Many NRRPs have considered reforms and investments in upskilling the workforce related to RES and EE jobs.
- ✓ Energy Efficiency investments can boost EU GDP by 0.7% per year.

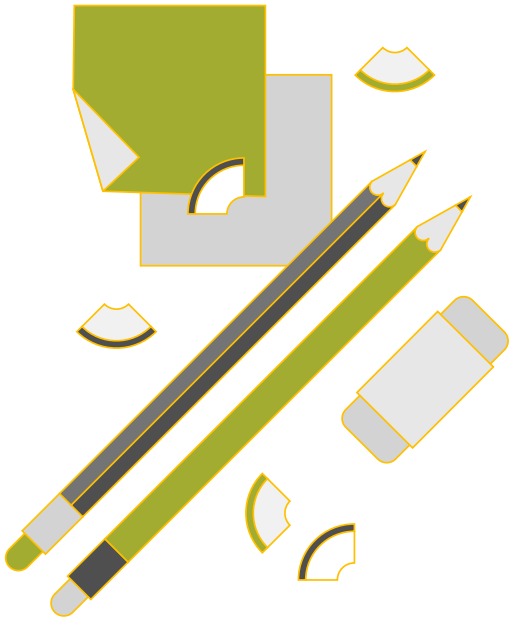
ENVIRONMENTAL



- ✓ Improving the energy efficiency status of buildings, a contribution to global CO_2 emissions reduction, produced by buildings, can be achieved.

- ✓ Natural resources protection is also a benefit.
  Globally, buildings are responsible:
  - for nearly 40% of energy use, including 60% of electricity use
  - 12% of water use,
  - 40% of waste generated, and,
  - 40% of material resources.

SOCIAL



An energy efficient building stock can:

- ✓ increase energy access and energy security
- ✓ reduce energy poverty level for low-income and vulnerable households,
- ✓ improve health and well being status, productivity and comfort levels.

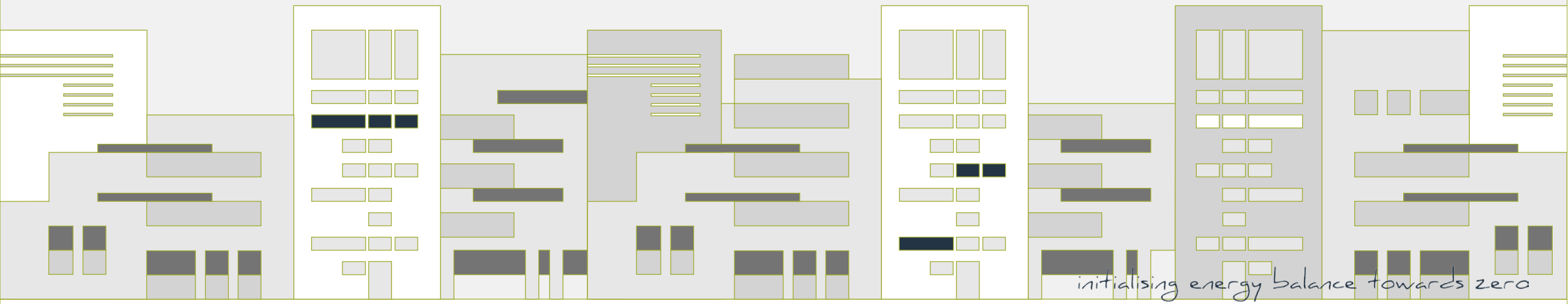
Spending less money for heating, cooling, lighting, etc., results in securing higher budget for purchasing good quality of food, education and other essential services.

ACTIONS TO UNLOCK ENERGY EFFICIENCY INVESTMENTS

Well-designed building codes and standards requiring minimum energy efficiency levels in design, construction and/or operation of a building, can secure decrease of energy expenses over buildings' lifetime and unlock investments and investors' interest!

ACTIONS TO UNLOCK ENERGY EFFICIENCY INVESTMENTS

Governments must set and work towards clear energy reduction targets for the existing building stock and for new real estate investments including government-owned buildings and support this way investments' decision makers.

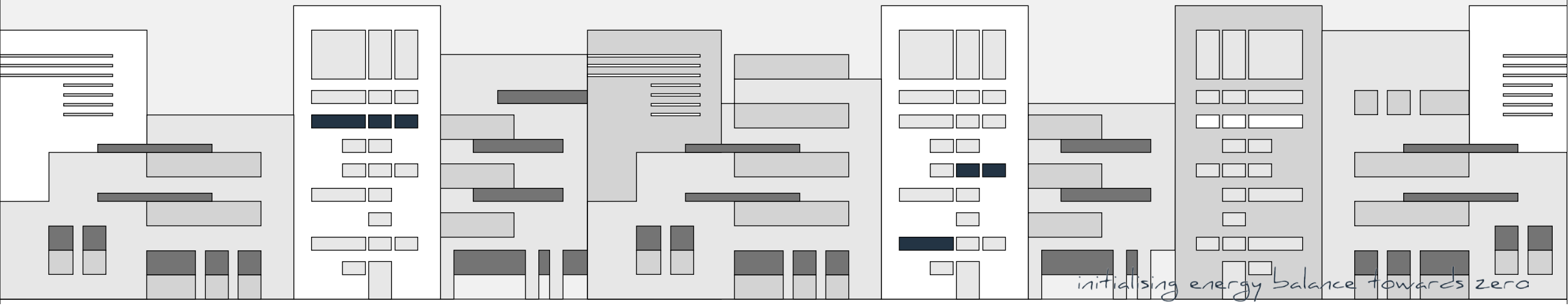


ACTIONS TO UNLOCK ENERGY EFFICIENCY INVESTMENTS

Regional and local governments have opportunities to make strategic investments in buildings' energy efficiency and work with national and private sector financial institutions to help overcome inactivity and spur more investments for buildings.

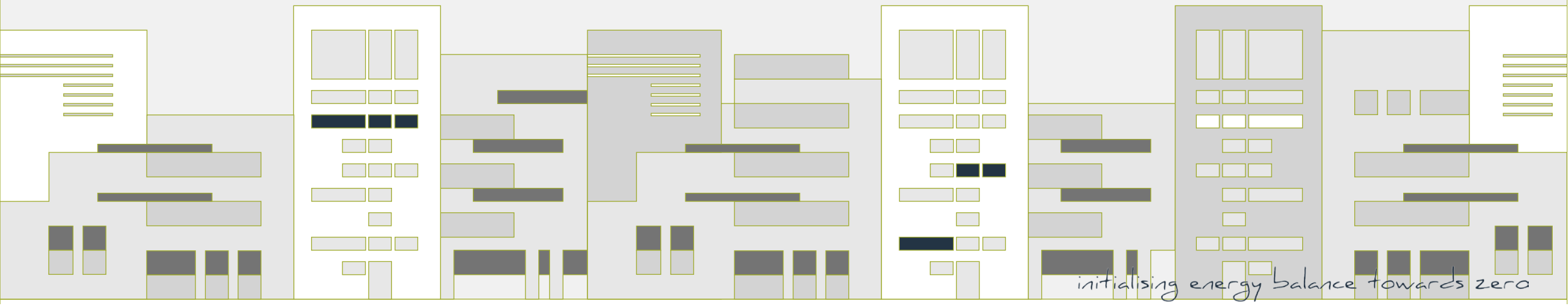
ACTIONS TO UNLOCK ENERGY EFFICIENCY INVESTMENTS

Successful policies and best practices in one region and/or Member State should be shared to create increased demand and acceptance for energy efficiency investments.



ACTIONS TO UNLOCK ENERGY EFFICIENCY INVESTMENTS

Increasing the transparency of building performance enables building owners, building managers, real estate portfolio owners and occupants to make informed and more secure real estate transactions, improve buildings' performance, and track performance against the set targets. Energy efficiency investors appreciate such frameworks and are more likely to invest when the environment support their decisions!



ACTIONS TO UNLOCK ENERGY EFFICIENCY INVESTMENTS

Public and private sectors should work together to train the workforce to successfully implement energy reduction works.
The only way to convince investors is to train and engage the whole ecosystem.

GOOD NEWS AND BAD NEWS

The good news for Europe is that between 2018 and 2019 average spending on energy efficiency measures, as a share of total investment of EU firms, slightly increased.

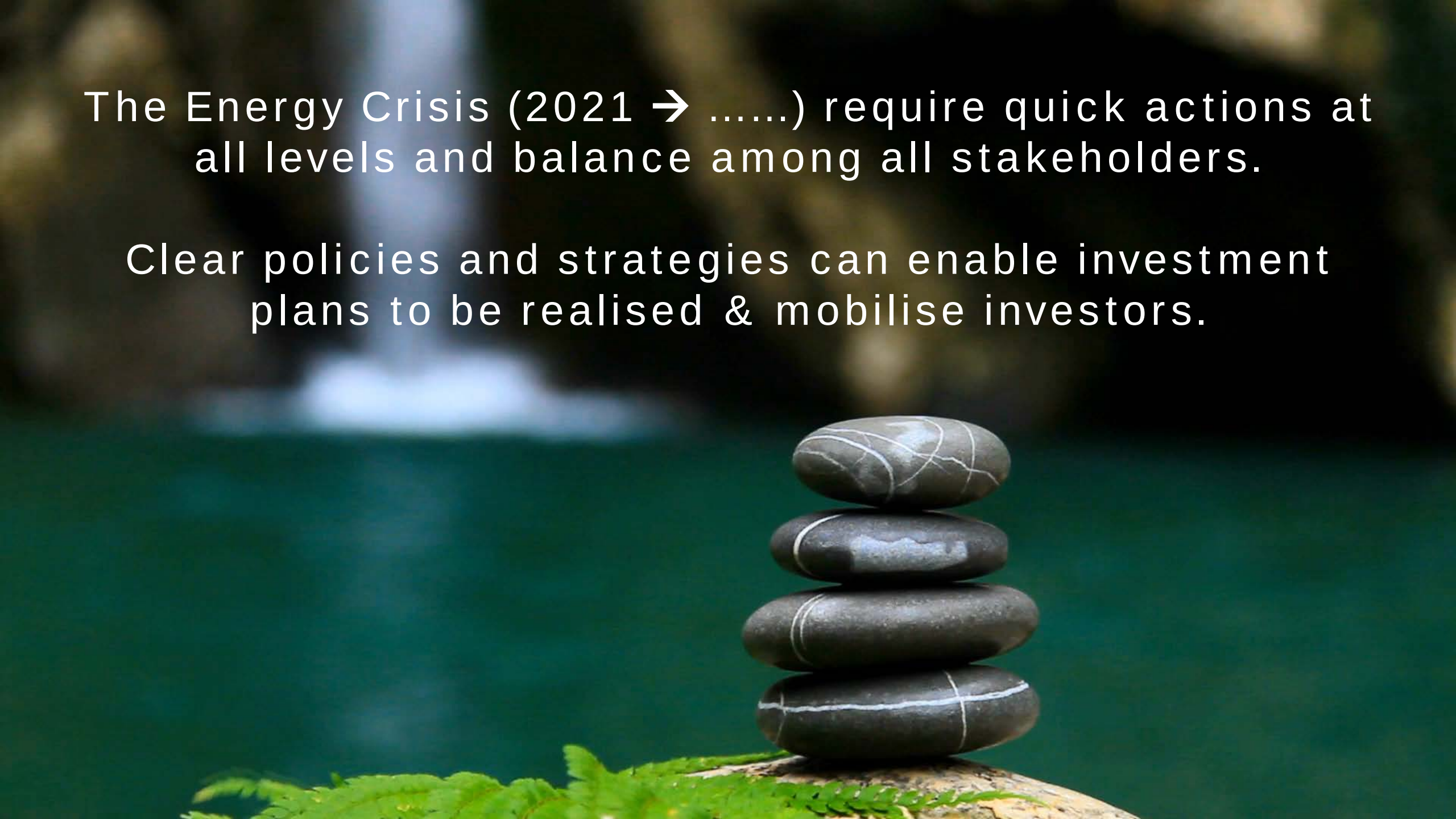
Most of these investments were probably driven by the age of the building stock, the importance of energy costs in the production of goods and services and the availability of information on technology options and their related energy cost savings.

Source: Going Green – Who invests in energy efficiency, and why it matters. Evidence from the EIB Investment Survey

However, the unprecedented impacts of the COVID-19 pandemic threaten positive developments for energy efficiency investments in the EU.

The COVID-19 pandemic and climate investments are closely interlinked: as the pandemic seriously affects economies and dampens global energy commodity and carbon prices, it weakens the incentives to invest, among others, in cost-saving technologies.

Source: Going Green – Who invests in energy efficiency, and why it matters. Evidence from the EIB Investment Survey



The Energy Crisis (2021 → .....) require quick actions at all levels and balance among all stakeholders.

Clear policies and strategies can enable investment plans to be realised & mobilise investors.

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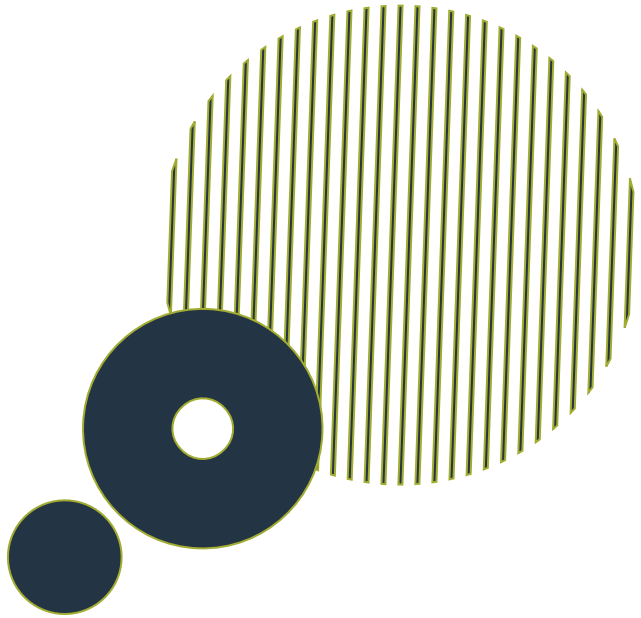

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Thank you!

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EEnvest

EEnvest Project

Workshop - 10th May 2022

Cristian POZZA – Project Coordinator

Project's facts

EEnvest project

MAIN OBJECTIVE

Increase investors´ trust in energy efficiency actions for existing buildings, through the development of a combined risk evaluation framework focused on the renovation of commercial buildings.

- EU Project duration: from July 2019 until June 2022
- Coordinated by EURAC Research
- 9 Partners from the technical and financial field
- Advisory Board composed by members from the Real Estate sector, Energy Efficiency and Financial Institutions.
- 2 demo sites in Italy and in Spain

EEnvest H2020 project GA #833112

Methodology

(1) Input Data Collection Sheet

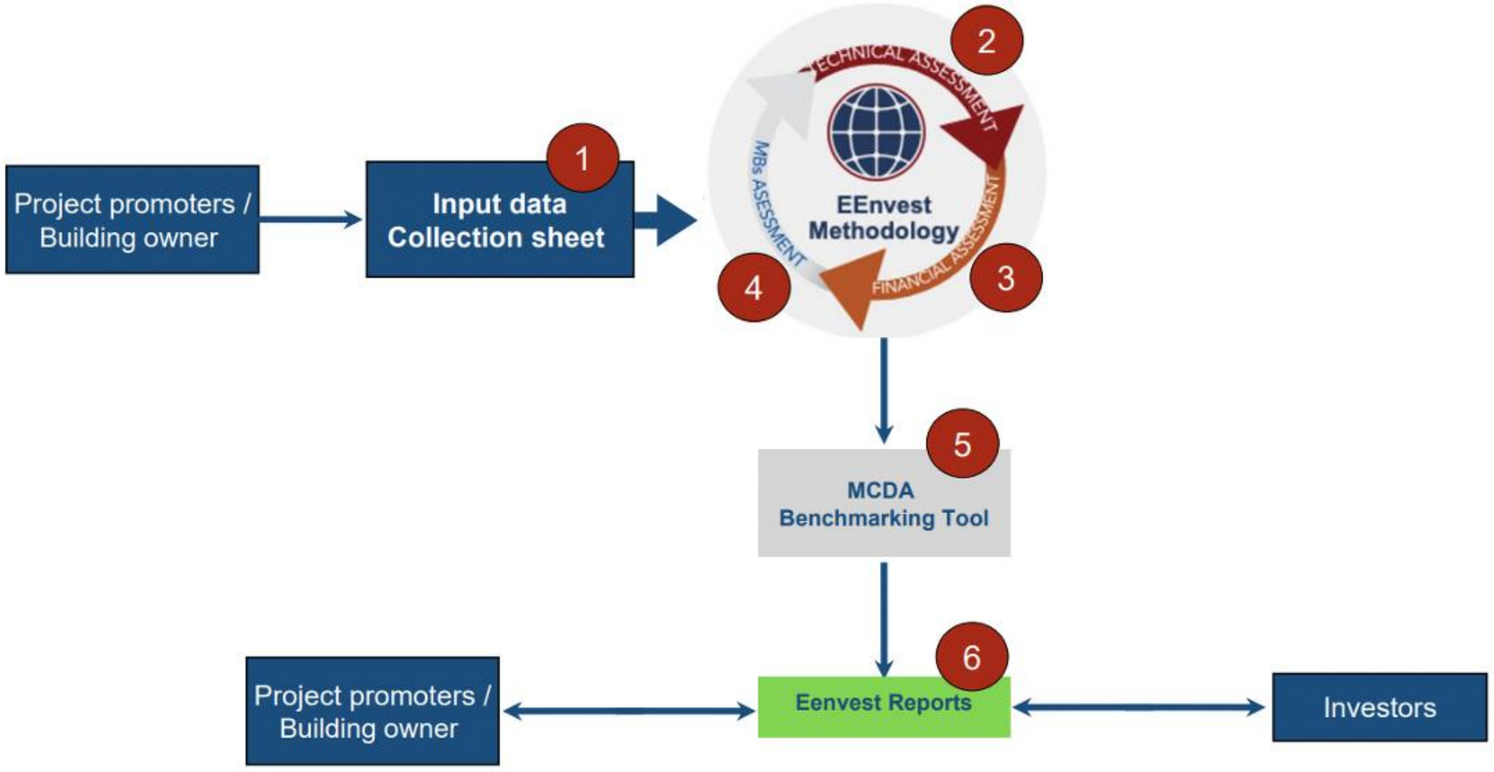
(2) Technical risk assessment

(3) Financial performance assessment

(4) Multiple-benefit assessment

(5) MCDA Benchmarking Tool, to benchmark different project alternatives

(6) EEnvest Risk Assessment Report, jargon-free KPI information and recommendation for investors



EEnvest methodology mechanics (GNE Finance)

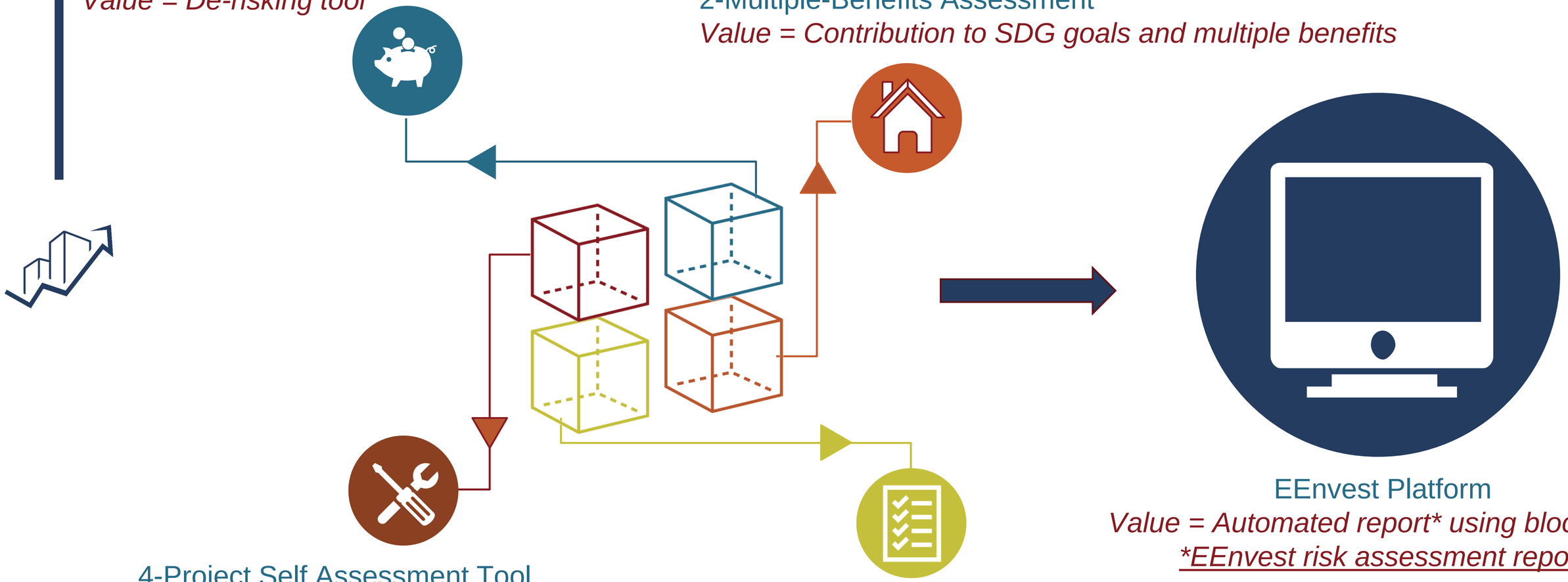
Tools

1-Technical-financial performance analysis

Value = De-risking tool

2-Multiple-Benefits Assessment

Value = Contribution to SDG goals and multiple benefits



EEnvest Platform

Value = Automated report using blockchain*

*<u>*EEnvest risk assessment report</u>*

4-Project Self Assessment Tool

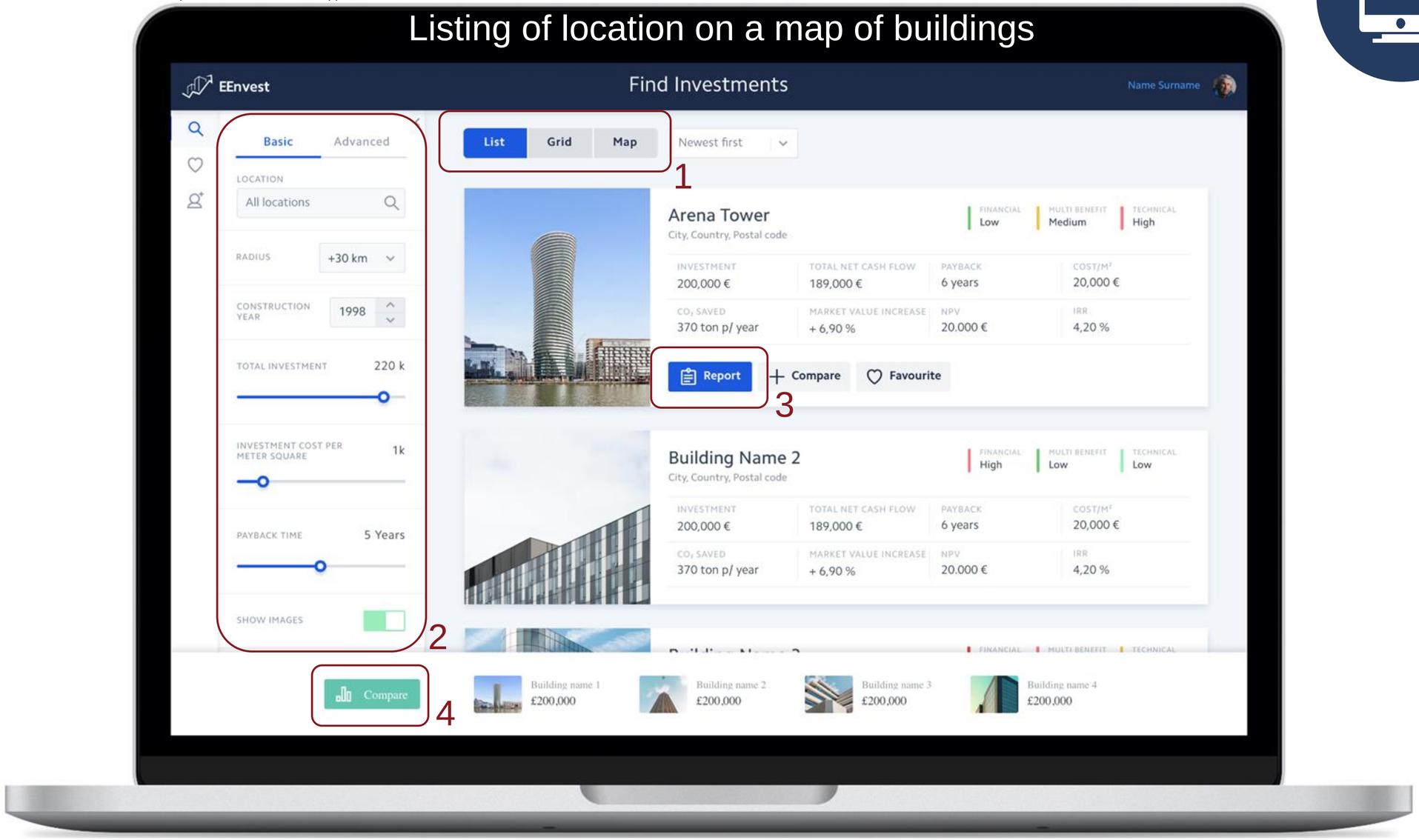
Value = Project quality rating

3-Multiple Criteria Decision Analysis (MCDA)

Value = Decision making support tool, benchmark functionality for investors

Web platform - Investors

(TRL9 – Platform mockup)



Report

Italian demo case

EEnvest RISK ASSESSMENT REPORT

GENERAL DATA

Name: IFAD

Address: Via Paolo di Dono 44, Rome, IT

Building use/typology: Office

Owner: -

Contact: -

TECHNICAL DATA

Construction year: 2001

Last renovation year: 2019

Gross floor area: 46,000 m²

Gross volume: 97,048 m³

HDD: 1,902

Project size: 1,300,000.00 €

Financing amount requested: 1,300,000.00 €

Investment cost: 53.37 €/m²

Expected M&O costs: 6.87 €/m²y

Primary Energy savings: 27%

Primary Energy demand: 266 kWh/m²y

PV production: Yes: 43,200 KWh/y

Solar thermal production: No

Expected start date of the renovation: 01/01/2018

Expected end date of the renovation: 31/12/2018

Project ambition: Minimum primary energy cost saving of 35%.

Renovation and mitigation measures adopted:

Heating system
Ventilation system
Lighting system
PV system
Building envelope renovation
Energy monitoring, LEED certification

Project Quality Self-Assessment score: High probability of reliable, consistent and achievable energy savings. **370/400**

Spanish demo case

EEnvest RISK ASSESSMENT REPORT

GENERAL DATA

Name: Fem Nucli

Address: Carrer Mulleras 6, Olot, ES

Building use/typology: Office

Owner: -

Contact: -

TECHNICAL DATA

Construction year: 1883

Last renovation year: 2018

Gross floor area: 382.5 m²

Gross volume: 1,308 m³

HDD: 2,337

Project size: 250,000.00 €

Financing amount requested: 250,000.00 €

Investment cost: 719.76 €/m²

Expected M&O costs: - €/m²y

Primary Energy savings: 97%

Primary Energy demand: 14.8 kWh/m²y

PV production: Yes: 6,600 KWh/y

Solar thermal production: No

Expected start date of the renovation: 01/01/2020

Expected end date of the renovation: 31/12/2020

Project ambition: Minimum reduction in primary energy demand of 50%.

Renovation and mitigation measures adopted:

Building envelope renovation (roof, wall, floor, windows, shading)
Heating system
Ventilation system
PV system

Project Quality Self-Assessment score: Reasonable probability of reliable, consistent and achievable energy savings. **307/400**

Thank you

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Misalignment of Stakeholders Interest in the Energy Saving industry

Who we are

EnerSave Capital S.a r. l. is a Luxembourg based partnership that with 5 key business lines:

- ✓ Corporate finance advisory services relating to energy saving and green energy generation
  - ✓ Structuring and placement of Equity and debt market products
  - ✓ Structuring and placement services for Sustainability themed Fund
  - ✓ Lead drafter of an ”off balance sheet” “as a service” Hybrid EPC contract under H-2020 LAUNCH
  - ✓ Advisory services to corporates in rollout of “as a service” based propositions
  - ✓ Main fields of Expertise are : heating, lighting, cooling, solar installations and e-mobility
- ✓ ESG advisory services
  - ✓ Consultancy services related to ESG criteria
  - ✓ Define and develop clients ESG strategy
  - ✓ ESG reporting
  - ✓ ESG implementation and monitoring
- ✓ Securitization services
  - ✓ Setting up of securitization structures to refinance “ESG & sustainability based cash flows” via Green Bonds
- ✓ EU funding advisory services
  - ✓ Assistance to navigate the EU Grant Application landscape
  - ✓ Assistance in setting up a consortium and identifying a suitable EU funding opportunity
  - ✓ Drafting of EU proposals
- ✓ Carbon solutions
  - ✓ Consultancy Service on Environmental Certificates (VCUs, REDD+, I-RECs)
  - ✓ Development of Carbon Emission Reduction Projects
  - ✓ Offset Carbon Emissions

The Stakeholders landscape

The Energy Saving industry can broadly be split into 4 groups:

- Building owners
  - Public – governmental agencies are the largest real estate owners - have the will but no means – are limited by Eurostat guidelines
  - Private – held via tax efficient structures - return driven and only invest to enhance return – have balance sheet limitations
- Technology Providers
  - Multinationals or local players supplying technology – not interested in extending credit beyond commercial 30 to 90 days terms
- Financers
  - Banks – generally balance sheet lenders - some project financiers
  - Specialized investment funds
  - Long term bond market players – would love to buy dependable sustainability derived cash flows
- ESCO's
  - Either subsidiaries of large technology companies – access to capital market and supported by strong balance sheets
  - More typically the case is that: 10 to 25 employees-private firms promoting energy saving solutions – limited balance sheet
  - Super ESCO

Boldness is a must

- Energy saving is pioneering work across various industry's
  - Financial – return driven
  - Asset owners Governmental & Private – balance sheet & stake/shareholder driven
  - ESCO – profit driven
- Urgency and the scale of the solutions that are needed are staggering
  - Ability to execute vs. Expectations by governmental organisations to scale
  - Example the various EIB initiatives such as the Private Finance for Energy Efficiency (PF4EE) instrument where the funding support that was provided to local banks have not been drawn down as many banks are still looking for balance sheet lending vs. project finance
- Time is limited and it is vital to have access technical expertise
  - The pool of professionals equipped with the latest know how's is limited
    - A friendly banker recently said "we either understand balance sheets or technology but seldom both"
  - Environmental, Social and Governance (ESG) – a requirement but - New field of activity with limited pool of talent available
- We need to act faster, more focused and determined

The conundrum of a ”no brainer”

- The Energy Saving Industry should be an “easy sell” as everybody agreed, but yet it is not taking off.
- Compared to the by now well established “solar” industry, where solar fields are generating green energy starting from “roof top” installations to “industry sized fields”, Energy savings is in its infancy.
- Whilst changing lighting to LED (only one example) has a far faster payback, somehow there is a lack of following to scale
- Hence this asset class, whilst the fastest to implement is still a niche player
- Simply because there is a lack of “believers” and no “support system” to help this industry off the ground
  - The brilliant work of many EU funded project are lining the shelves whilst if applied and supported commercially they could possibly thrive
  - The various players all being human are trying to maximise their margins which in the end make many projects not see the light of day
- **Any child born today will suffer the fallout from our procrastination**

To move the needle we need to solve

- **Taxation on the Capital products supporting Energy saving measures**
  - The US has a thriving Municipal bond market **where the coupon payments do not suffer income tax –** no need to reinvent the wheel – and the increased VAT receipts will compensate for the loss in income tax.
  - Lower funding costs could help to get projects over the line
  - Allowing individual investors to purchase these kind of bonds up to a certain limit, will open a pool of capital currently not available
- **Cutting "red tape" to get projects up and running**
  - It takes to long to get Energy Saving Projects approved on a building authority level
  - Procurement needs to be simplified – in any sector
    - If we now want to reduce heating cost (reduce gas imports), a Public authorities would need to
      - Dedicate 3 months for a Tender preparation
      - 3 month for tendering – then 30 days evaluation – if all goes well it will take a further 30 to 90 days to get contracts established
      - We are in the 22/23 winter season before a large school boiler is changed – at the same time we say we want to cut Russian gas dependence
- **Lack of alignment of interest – this needs to make sense from the perspective of the:**
  - Manufacturer – likes to have more sales - but large clients have better purchasing power – hence let's keep market fragmented
  - Financier can't deal with small investment proposals – but this is where the bulk of the business is € 10 to 20,000 per household
  - Energy saving needs to be financed and paid from the savings – As the head of a large infrastructure investor said, the widget manufacturer will not spend his money on energy saving lighting, but he will spend its money on producing better widgets - this is way down on the majority of people's "spending plan"
- **Super ESCO's**
  - Scale makes life easier for funding, procurement and rollout
  - Todays ESCO's with a few exception have
    - Weak balance sheets
    - Only a local focus
    - No purchasing power – which is the key to lower the cost
    - **Entrepreneurs will need to enter the sector and either build this industry or engage on a merger wave to get to scale**

EnerSaveCapital

Thank you

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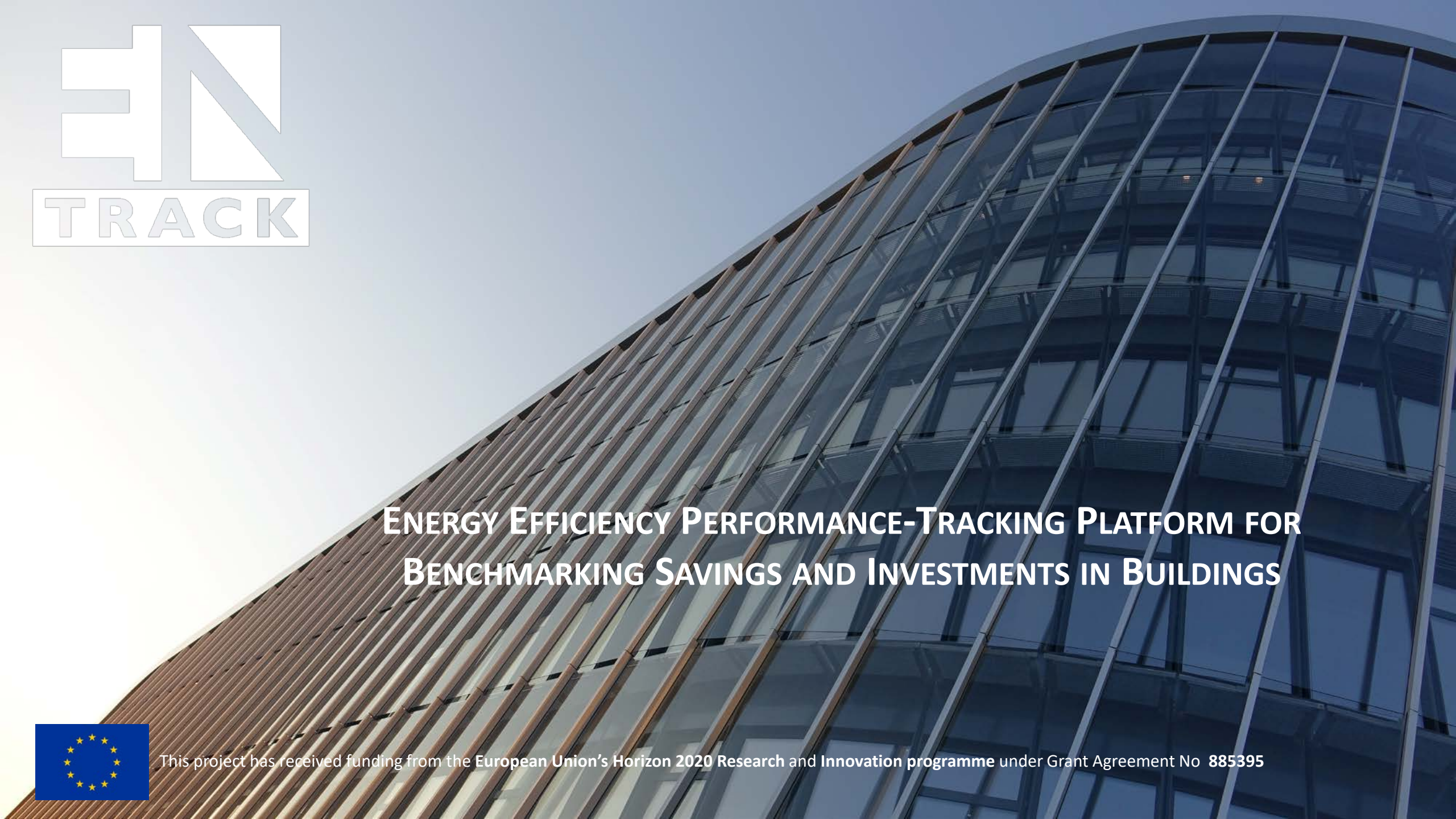

ENERGY EFFICIENCY PERFORMANCE-TRACKING PLATFORM FOR BENCHMARKING SAVINGS AND INVESTMENTS IN BUILDINGS

This project has received funding from the **European Union's Horizon 2020 Research** and **Innovation programme** under Grant Agreement No **885395**

Triple-A: Energy Efficiency Financing Event

10 May 2022, Amsterdam

Project overview

Dr. Stoyan Danov, CIMNE

This project has received funding from the **European Union's Horizon 2020 Research** and **Innovation programme** under Grant Agreement No **885395**

Project key facts

- H2020 (EE-10-2019): Mainstreaming energy efficiency finance
- Project duration: 36 months (until October 2023)
- 7 partners from 5 countries (ES, BG, IT, DK, UK)
- 2 pilots – Spain and Bulgaria
- Data gathering objectives: 4500 EEM (savings & investments)
- Adoption of standard data description and exchange with DEEP
- 1.393 million € EU funding

European Commission | Horizon 2020 European Union funding for Research & Innovation

Objectives of EN-TRACK

- Enable massive gathering of data on performance of energy efficiency investments in buildings
  - efficiency measures, their costs, energy consumption before & after
  - non-energy benefits, user perception
- Make this process continuous by engaging the stakeholders that possess the data
  - building owners & operators, public authorities, ESCOs
  - user engagement through services
- Adopt a standard data description
  - BEDES aligned
  - interoperable with sustainable financing platforms: DEEP, eQuad, …
- Make the solution self-sustainable after the project
  - business models & agreements

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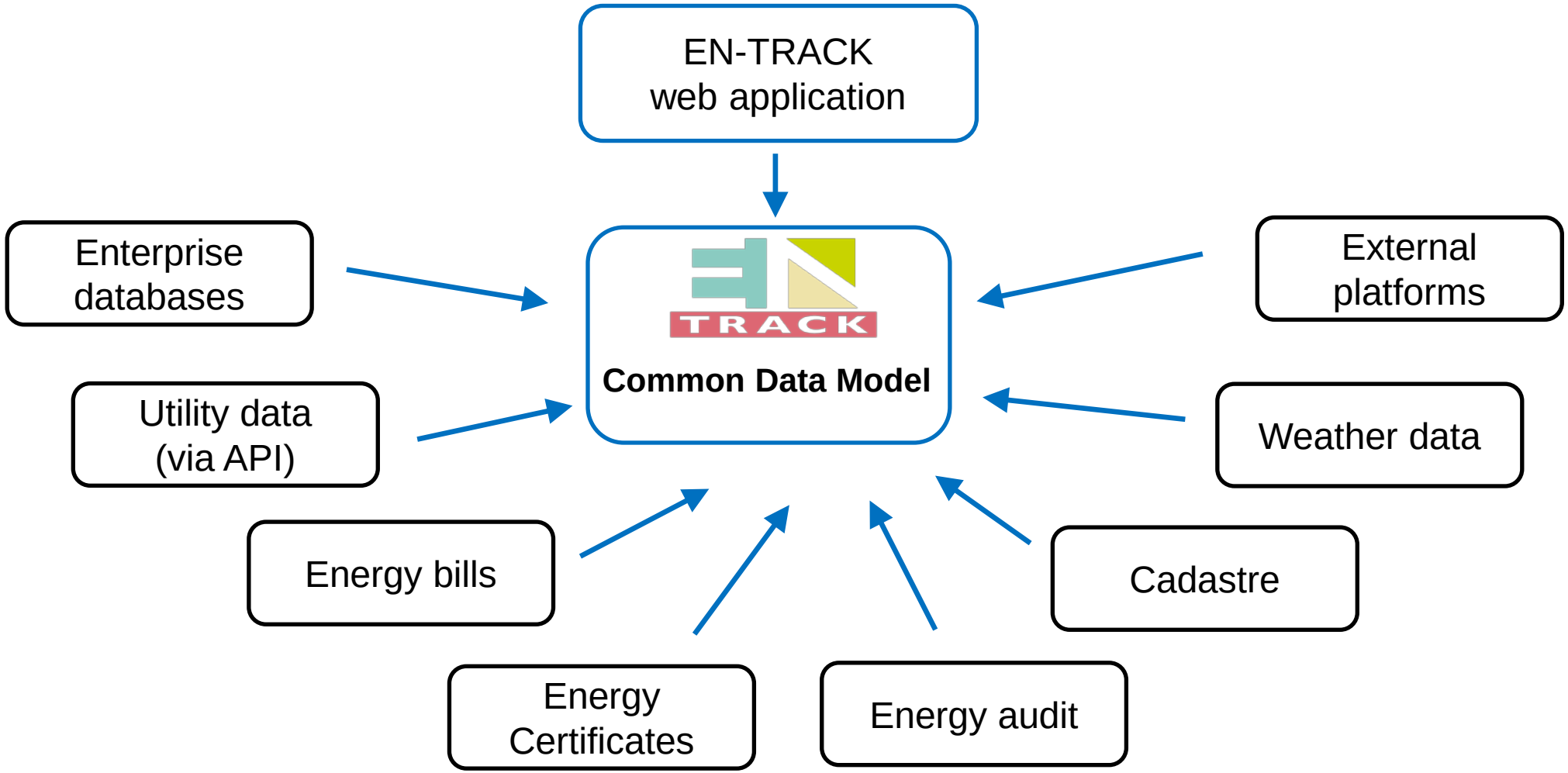
EN TRACK

Multiple data sources



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EN TRACK

EN-TRACK's approach

- Accessing data in existing databases & platforms and aligning them internally
  - EN-TRACK common open Data Model
- Enabling maximally the automated data collection
  - APIs: existing databases & platforms, energy utility data, weather
- Combining user-submitted data
  - Standard data uploads (energy bills, EPCs) & Graphic User Interface input
- Automated data consistency checks and platform support to the user for revision and validation of the submitted data
  - Low cost data collection & High data quality

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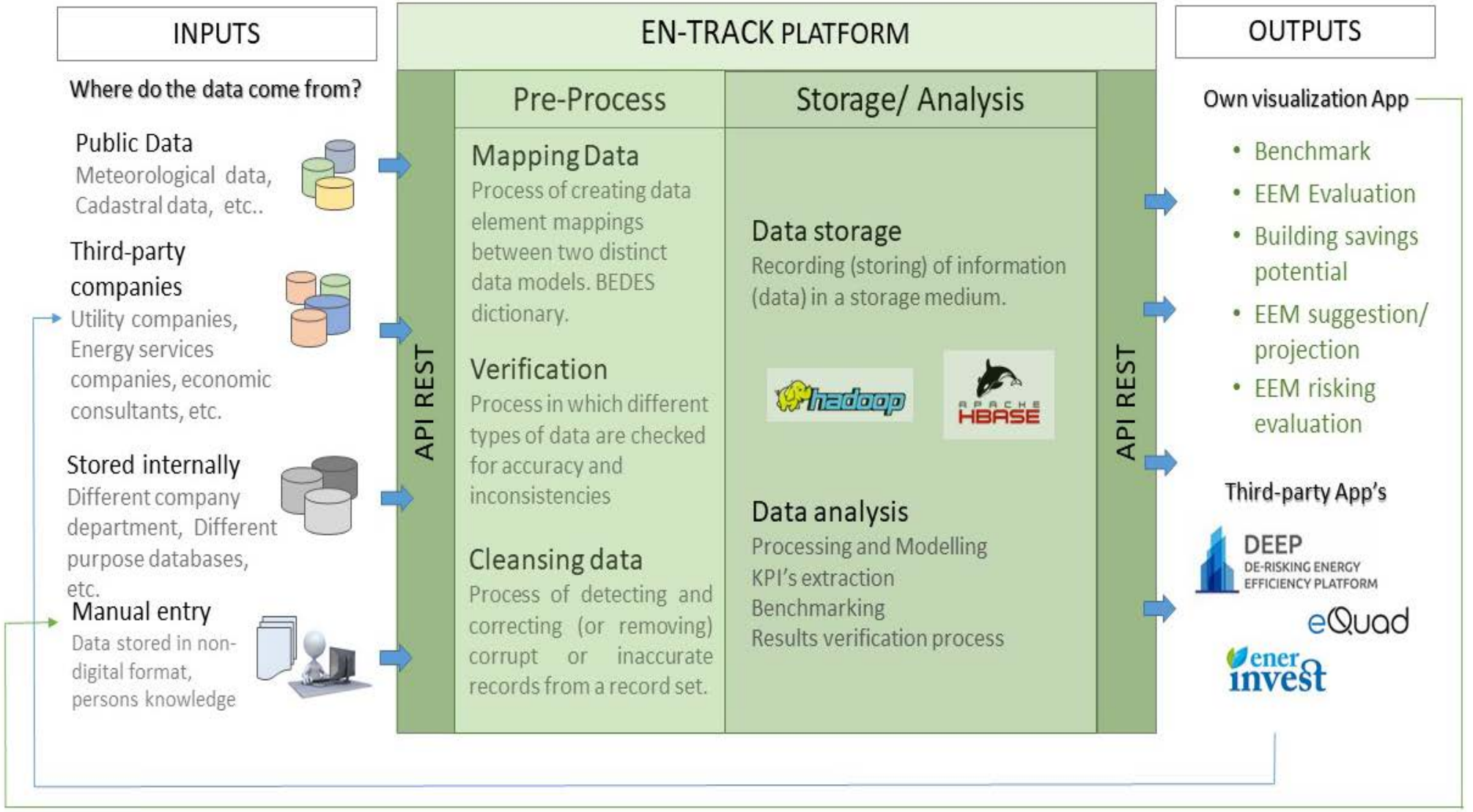
The data process



EN-TRACK services

Audience segment	Building Owners & Operators	Financial Institutions	Policy Makers
User Profiles (example)	• Energy manager • Portfolio manager • Energy auditor • (ESCO…)	• Underwriter / analyst in a bank • Project assessor / project officer in an international financial institution (IFI)	• Policy officer in a government or international institution • Policy officer (energy/environment) in municipal government
Core services	***One-stop-shop solution*** ***•Single place to collect all building related data*** ***•Monitor the building stock performance in time*** ***•M&V of projects*** ***•Benchmarking (energy consumption, efficiency projects performance, CO2 emissions, investments)*** ***•Decision support tools*** ***•Recommendations***	***Benchmarking & risk assessment*** ***•Benchmark and compare the financial performance of energy efficiency projects in buildings*** ***•Evaluate investment projects considering specific building characteristics*** ***•Assess CO2 emissions reductions related to investments***	***Reporting and decision support*** ***•Track the performance of the building stock & EE investments*** ***•Track achievement of environmental targets*** ***• Data-driven support for development of energy efficiency programmes*** ***•Infrastructure enabling the implementation of energy disclosure legislation***

Relevant for public authorities

Regional and local governments, providing a single place for storing and monitoring the performance of their public building stock, supporting reporting, decision-making and policies related to their climate action commitments.

Municipalities and cities that want to promote voluntary or mandatory schemes for reporting of building energy performance-related data for all buildings (public & private) in their territory. The EN-TRACK platform will provide the technical infrastructure to support the practical implementation of these policies.

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EN TRACK

Thank you

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EEFIG Working Group on EE1st

Operationalising energy efficiency first in financial institutions

Presentation to Triple A Project

10 May 2022

What is EEFIG?

- The Energy Efficiency Financial Institutions Group (EEFIG) was established by the EC and UNEP FI in 2013
- EEFIG addresses barriers to energy efficiency financing through both policy design and market-based solutions to increase the scale of energy efficiency investments across Europe
- Membership spans public and private financial institutions, industry representatives and sector experts
- Outputs Include
  - 2015: Report on Energy Efficiency Financing
  - 2016-2017: Derisking Project produced DEEP and Underwriting Toolkit
  - 2018-2022: Working Groups on a range of topics

EE1st and Financial Institutions – Why?

- Energy Efficiency First is EU policy but:
- *Every day, as we speak,* investment decisions are being taken that do not incorporate even the cost-effective potential for energy efficiency improvement – locking in higher than needed energy use for the life of the asset.
- Why does this happen?
  - Lack of information about what is possible – on part of both client and financier
  - Use of standard, off the shelf designs – engineering conservatism
  - Lack of time
  - Difficult to see options – by the time a proposal is presented to an FI it is well developed and alternatives will not have been as well developed
  - etc

EC Recommendation & Guidelines on adopting EE1st

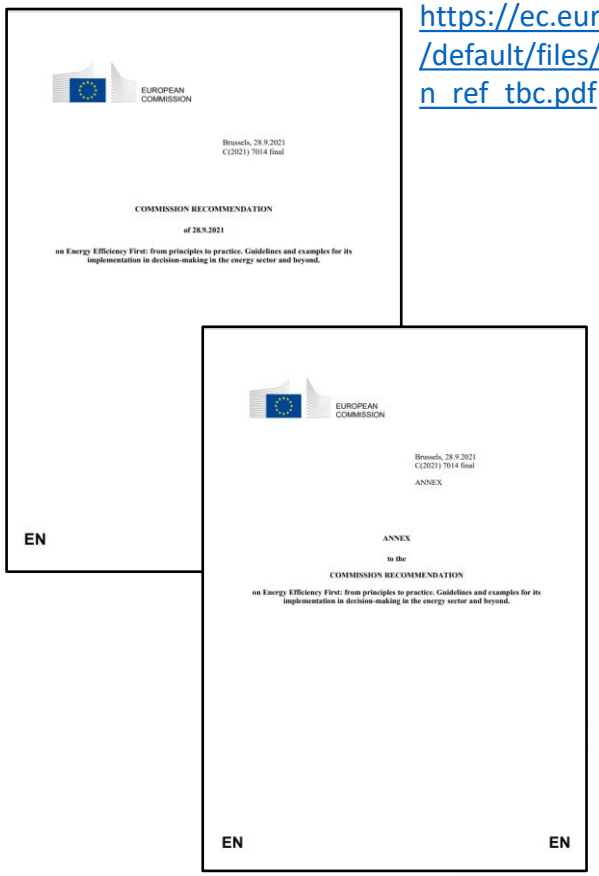
- Published in September 2021, covering a range of sectors including finance

- Commission Recommendation:

'Energy Efficiency First: from principles to practice.'

- Annex:

'Energy Efficiency First: from principles to practice. Guidelines and examples for its implementation in the energy sector and beyond'.



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https://ec.europa.eu/energy/sites/default/files/eef_guidelines_ref_tbc.pdf

ANNEX

to the

COMMISSION RECOMMENDATION

on Energy Efficiency First: from principles to practice. Guidelines and examples for its implementation in decision-making in the energy sector and beyond.

4.8. Financial sector

Areas to be considered:

- Adapting and incorporating the EE1st principle into different financing processes to ensure due priority consideration is given to all energy efficiency measures.
- Ensuring technical capacity among project developers, banks and asset owners so that they could identify all energy savings potential and go beyond regulations or business-as-usual designs.
- Aligning project owners' interests in identifying energy performance improvements through technical and energy-related due diligence flags.
- Using the EE1st principle to flag the risk of stranded assets in installations, facilities and networks which are undergoing significant upgrades.
- Developing new financial products for the building sector, which already embed the EE1st principle and cover optimum energy efficiency investments.
- Promoting further integration of energy and carbon prices in the risk-assessment of assets, especially for greenfield asset projects.
- Considering the EU Taxonomy criteria, in particular regarding energy efficiency, to help project developers and owners as well as financial institutions to identify projects that contribute substantially to the climate and other environmental objectives.

Challenges to adopting EE1st within FIs

- Different types of EE projects
- Different sectors
- Different types of financial instrument
- Different types of financial institutions
- Different project drivers
- Need to proactively influence project development – more than is normal

The EEFIG Working Group on EE1st

- Established January 2022 – still recruiting members from FIs
- Is running through to April 2023
- Working Group will consider:
  - The drivers for Financial Institutions to adopt EE1st
  - Barriers to adopting EE1st in Financial Institutions
  - Examples of Financial institutions adopting EE1st
    - e.g. EIB, EBRD, World Bank, KfW, ING REF
  - Tools that could help Financial Institutions adopt EE1st
    - e.g. Due diligence check lists, templates, processes
  - Policy & regulatory measures to improve take-up of EE1st in Financial Institutions
  - *And provide feedback on the Guidelines*

Membership from:

- Public banks
- Private banks
- Asset managers
- Pension funds
- Insurance companies
- Infrastructure and real estate investors
- Banking regulators (EBA and national)
- Banking trade associations (EBF and national)
- Others

The targeted deliverables

- Guidance for Financial Institutions that help them adopt EE1st into their investment / lending processes
- Guidance likely to include:
  - Rationale for adopting EE1st
  - Guidance on where EE1st can be adopted into investment / lending processes
  - Template documents that can be used to assess potential investments / loans against EE criteria
- Recommendations to EC on potential policy measures to drive adoption of EE1st in Financial Institutions

The EEFIG Working Group on EE1st

- Addresses a critical element of increasing the flow of investment into energy efficiency
- Will raise awareness of the EE1st principle within Financial Institutions
- Is the opportunity to develop useful tools for Financial Institutions to help adoption of EE1st
- Will advance the agenda
- BUT…… ***we need your input***

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