



Additional solutions identified in the national platforms roadmaps

Solutions:

Netherlands – Green Build Invest Initiative

Real Estate Evaluation - Education of valuers on certification schemes

As part of the BUILDINTEREST project, Green Build Invest Initiative is building a dialogue to establish an incentive for the financial institutions to regard sustainability as a lower risk.

An important conclusion from the overview of market barriers is that investments in real estate are not lagging behind on the current market trends, but that the choice to allocate some of those investments in sustainable real estate, defined by energy efficient, but not excluding materials and occupants' wellbeing, is underperforming. This is not a lack in interest, but it may be due to the discrepancy between the valuation of sustainability in real estate and the perception of risk for this kind of buildings.

Currently there is no guideline for real estate valuers to include energy efficiency within their valuation reports. Depending on the demand of the client certain topics could be named, but most valuers skip energy efficiency or sustainability. And the valuation of sustainability in buildings is not fully harmonised. There are two main valuation standards used in the European Union:

- International Valuation Standard or IVS (operated by RICS)
- European Valuation Standard or EVS (operated by TEGOVA)

Both methods have a chapter on sustainability within the standard, but give little to none guidelines on how to objectively shape the content of this chapter. The main focus lies with energy and operation costs and does not entitle the way in which sustainability is an integrative part of the building beyond the focus of energy.

Green Build Invest Initiative together with Dutch stakeholders, part of the platform, are working closely together to **create an education workshop for valuers on the topic of energy efficiency and sustainability**. This solution focuses on:

a) Defining the worth of existing sustainable valuation tools e.g. certification schemes. By defining the KPI's in regard to sustainable real estate (for example: Energy Efficiency / Health etc) we can achieve a baseline within the different existing schemes (energy labels / LEED etc) to show how they relate to each other and to make a benchmark between different methods possible.

b) The Dutch real estate taxation organisation (NRVT) is looking at a dialogue to establish a harmonisation within the Dutch taxation professionals about sustainability next to available valuation methods. It is necessary for valuers to keep their knowledge up to par and a workshop could be added as a base to this education programme.

The first step therefore is to create a knowledge level and therefore create a starting point for the future discussion about the value of energy efficiency in buildings. Focus on certification schemes and energy labelling, followed on a second level with building occupants and wellbeing, but also organisation aspects in regard to energy consumption, can link existing certification methods and schemes for sustainable real estate thus making possible the reaching of consensus in shaping the way sustainability is included in the valuation of buildings. Major international systems

including BREEAM (operated by the BRE, UK) and LEED (operated by the GBCI, US) can be included in replication of the workshops and lead to a European education programme on energy efficiency and valuation. This way a solid, objective approach for sustainability within the valuation of buildings can be created and an incentive for the financial institutions to regard sustainability as a lower risk will be established.

Availability of examples

Green Build Invest Initiative is becoming a **knowledge platform for stakeholders on the demand and financial side of real estate in regard to energy efficiency and sustainability**. By creating a reference point for future projects and connecting future projects to projects (and directly to involved people), the platform's focus is to ease investments in more energy efficient buildings instead of diverting to 'regular' buildings due to **lack of knowledge**.

Green Build Invest Initiative is building quality network of facilitating and connecting knowledge, process management and showcasing of examples. An important purpose the platform plays is to be an objective partner for the entire real estate and construction sector in the Netherlands for showcasing and sharing projects and initiatives. It achieves this by taking a pro-active approach to find example projects and showcase the way they overcome certain barriers. Direct information is available online, through sharing on the platform, or through direct contact with involved people.

Engagement is encouraged by allowing stakeholders to become the primary partner for showcasing projects and by giving them a sense of quality and objectivity to ensure their trust in sharing their information. The steps undertaken and sought to complete the solution are:

- Initial establishment of the ICT backbone (June 2017) and visually finalization
- Green Build Invest Initiative is pro-actively contacting stakeholders to add content to the platform
- Based on the content and market Green Build Invest Initiative is establishing a quality procedure for content and community management
- Expansion of the content input and topics for other barriers and solutions and growth of the platform and its significance.

Similar examples

Through PEEF a couple of cities have asked to showcase their successful sustainable area approach. They are working together with local financiers / builders / owners to achieve a higher degree of sustainability. By showcasing these examples, a 'roadmap' could be made to help other cities achieve the same kind of results.

France – Bpi france

Make Green building projects and companies investible through digital platform

Creation of a new eco-system through a wider community to tackle the recurrent fragmentation of the sector and to create a critical mass that can move things is the core of the BUILDINTEREST project. The problem of equity financing innovative companies remains the same whatever the company sectorial positioning is in. A specific sector like Cleantech or not: the start up still must validate a "scalable" economic model on first customers and then raise funds to accelerate.

The idea of a platform of sustainable building actors is excellent tool to energize the entire ecosystem. So, the aim of the platform should not be focused on equity but must be wider to nurture a community of actors to gain a critical mass enabling them to enter in the energy transition for the building sector. A platform, developed by this method should lead to:

- Tackling of current fragmentation issues in the sector through wider participation

- Demonstration of the innovative aspects but also the viability of green building projects through best show cases from EU countries or other countries through sectorial webinars to create a real community
- Obtain deals and investments in green buildings innovative starts ups and SMEs by encouraging participation in events, e-pitches and webinars with focus on equity

The French platform EuroQuity, with its specific BUILDINTEREST community, is thus making use of the EU online platform to engage stakeholders that are not focused on investments in energy efficiency projects in the built environment and encourage them to include such projects in their financing portfolio.

Process highlights of EuroQuity:

- **Online pitches and webinars**
 - Upfront selection of top quality projects and presentations
 - Managers are coached both on the speech clarity and on the document contents by fundraising experts for maximum impact
 - Anonymity: investors can log in and ask questions anonymously
 - Each company presents for a set amount of time, followed by Q&A session
 - Those who cannot attend the pitch are given the link to see the session recording, allowing companies within the community greater visibility
- **Events**
 - Upfront selection of top quality projects and presentations
 - Dedicated session with focus on equity and selected audience
 - Opportunity for live networking and interactive Q&A session after the presentation

[Develop a pilot project aggregating different innovative renovation technologies and finance it through dedicated loans adapted to renovation constraints](#)

Renovation is also a central issue today with an enormous house stock to be refurbished according to green standard. However, there are often no strong offers to propose a global renovation package using innovative technology (IOT, new material, RES, Grid connection, energy monitoring). There is also a clear lack of a loan offer adapted to the renovation constraints.

The solution, as proposed by the EuroQuity platform, is to develop a Pilot project aggregating different EE technologies for renovation (Isolation, RES, IOT, energy performance monitoring, Grid connections) and to finance it through the improvement of existing loans (Eco PTZ – pret vert in France) or new loans better adapted to the renovation constraints to:

- **Solvency** (Include the energy efficiency gain in the solvency calculation)
- **Duration** (up to 30 years like in Germany/Kfw or 30 years performance guarantee in Energysprong model)

Due to the time that co-owners need to vote in favour of renovation works, it appears it is most reasonable to target individual housing and large housing complexes.

The Renovation works pilot project has two objectives:

First Objective: Definition of a “pilot process” so that customers would benefit from a comprehensive range of services to achieve renovation works. In other terms, it is about defining the best customer route to easily engage renovation works, as there is a need for a quick, inexpensive and reliable process to replicate renovations works at a large scale. Defining a solid and reliable process to support the customer, throughout the all duration of the renovation works, would bring more trust. The process definition could be divided in three stages:

- Identification of renovation project
- Feedback analysis
- Establish a providers process identifying key steps (placing an order, getting a loan or a grant, official acceptance of work, ...)

Second objective: The pilot action may focus on concrete renovation projects works in residential housing for which mature and affordable EE technologies could be deployed with a financial guarantee or loans better suited to the constraints of renovation works, such as **duration**.

The key aim is to select the most suitable technologies, and avoid being blamed later in the process for having chosen some at the expense of others. In order to achieve that, the following criteria have been listed: ease of installation, system reliability, energy gain, cost, good quality and performance.

Process highlights of EuroQuity's model:

To avoid any difficulties in the selection process EuroQuity has involved two young companies dedicated to renovation work: Renocoop and Cosynergy. RenoCoop is a company that makes use of a digital platform to select professionals for renovation and a 3D scanning machine to propose renovation works; Cosynergy provides a more comprehensive range of renovation works services, such as diagnosis, works and support on seven items (insulation, woodwork, heating, power production, air handling and home automation).

The "Renovation work" pilot project is a 5-step process, involving stakeholders from the community:

- 1) On the financial stakeholder side, Crédit Foncier de France(CFF) identifies potential customers for "acquisition + renovation" works and suggest that they take part in the pilot action
- 2) On the technology suppliers side, RenoCoop or Cosynergy provide adequate solutions to the customers' issues. Thanks to the BuildInterest community, inclusion of additional technologies is possible and cost and good performance guarantee will be the key criteria for the selection of said technologies
- 3) CFF provides an adequate financing solution, including an amount with so called "white works"
- 4) On the industry stakeholder side, professionals recommended/referenced by RenoCoop or Cosynergy carry out works
- 5) "Renovation Audit" could be led to certify the quality of the results once the renovation works has been completed

Examples of other existing replicable solutions, identified throughout the work on the project:

Capitalising on existing financial instrument devices (CEE, CPE, eco-PTZ, ...)

1. Improvement of French energy efficiency certificate (CEE): extend the CEE perimeter to construction materials such as wood.

2. Improvement of French Performance Energy Contract (CPE)

- a. To overcome the dichotomy tenant/owner, a specific status could be implemented for the CPE through the recoverable rental fee in order to reason with constant overall expenses for the rent, like in the Netherlands. A system of "Hot Rent" (as exists in Sweden) could also be envisaged to include energy costs in the rent, and allow the owner to recover some benefit when investing in energy efficiency improvements.
- b. The high transaction costs can be offset by aggregating several buildings to increase the size contracts. This aggregation can be done in two different and potentially complementary approaches:

- **By consolidating multiple buildings of the same owner:** it is for example the case that the two CPE signed in 2009 and 2010 by the Alsace and Central regions to renovate their schools for amounts of € 30 million.
- **By consolidating several buildings of different owners:** this is for example the target project incurred by the provinces of Milan and Chieti in Italy. Besides the fact that the aggregation of buildings under one contract achieves critical mass likely justified to high transaction costs, it also allows the ESCO to mitigate its risk by reasoning globally (Underperformance on a building may be offset by better results on other buildings, so that the overall contractual targets are met).

3. Reflect on the improvement of existing loans (Eco PTZ – pret vert): The objective should be to review with the banking sector the characteristics of regulated loans dedicated to energy retrofits to make them more attractive, in particular by extending their duration, or by developing loans for condominium, or include the energy efficiency gain in the solvency calculation.

Third party financing or public ESCOs

This financial scheme allows to financing of building renovation by a third party through the creation of a Public private dedicated company: “Société Publique Locale d’efficacité énergétique de France”. This company will achieve the investment and will guarantee the performance; the concept of third party funding was highlighted by the working group "The Innovative Financing for Energy Efficiency" ("FIEE") from the French Plan on Sustainable Building, conducted in 2013. This scheme provides an energy upgrade offer that includes financing of the operation and post-work monitoring, so that the owner has nothing to finance because the future energy savings gradually repay all or part of the investment.

The requirements of banks and investors in terms of profitability, liquidity and level of risk are not in line with ambitious renovation projects, notably due to the lack of sufficient track records. Public intervention is therefore necessary and legitimate to pave the way and help to structure with financing arrangements capable of showing the viability of the renovation market. Specific third-party financing operators acting as ESCO can thus be created to develop investments with low ROI and long return times. The public sector (national, local or other) is in the best position to invest in such operators.

Insurance and guarantee for ESCOs

Interventions on the building envelope remain are still considered as too risky by most actors, in particular banks, although they have been technically developed for more than 10 years. Technical and financial risks involve higher interest rates or ROE requirements, resulting in a reduction in the level of savings generated over a given time horizon. This could be limited by developing technical assurances and financial guarantees.

- Technical shortcomings, which are due to deficiencies in the implementation of the works, are inclined to occur during the first years of the contract. After that, the risk is mainly limited by the optimal management of facilities, which is the core business of many of ESCOs. Clients and financiers therefore seek to ensure the capacity of the ESCO to assume the financial consequences of underperformance in terms of energy savings. Securing the ESCO guarantee is certainly important for the customer but it is also a crucial issue to facilitate the access of SMEs to the CPEs. Without insurance, the financiers require collateral to the loan that requires a type a guarantee from a bank or an asset that excludes actually most of SMEs.

- Financial guarantees: In addition, guarantee funds could be set up, which could provide 3 main financial products:

- Direct loans to building owners or ESCOs, in the form of a revolving fund
- Partial credit guarantees to cover part of the defaults in CPE
- CPE portfolio guarantees for ESCOs to cover late payments.

To guarantee renovation work or new building, the Risk sharing facilities (RSF – guarantee fund)) could also be used.

Italy – ASTER

Making projects financeable: BUILD LAB in support of quality project examples and improvement of their economic and environmental attractiveness

The Italian financing platform in the Emilia-Romagna Region, BUILD LAB, is also addressing the scarcity of good-quality information on financial tools available for building renovations, new technologies, services and products that innovate the sector reducing the uncertainty of energy savings and effectiveness of renovation works.

BUILD LAB implements the results from building of its community to increase the understanding of what is a good renovation project, how it could be realized in an economically and environmentally sustainable way and which kind of benefits it may generate in terms of collective well-being and private interests, especially with reference to the increasing value of the property. The platform, therefore addresses the challenge of difficulty of finance, supply, policy makers and final users to speak the same language when dealing with energy efficiency interventions. A better understanding of what each stakeholder category intends and expects from others would enhance a profitable collaboration and reduce the uncertainty in the market.

First, the definition of different targets (enterprises, final users, public sector) and the recognition of the cultural-informative needs of these targets are identified. Second, integrated products, with clear costs and benefits, are promoted and models for better finance ability are recommended to facilitate distinguishable difference to increase the competitiveness of innovative companies in the market. Stakeholders are involved and motivated to promote findings and results through three levels of aggregation, engagement and collaboration: Steering Committee (SC), Topic Oriented Groups (GOT) and Community.

BUILD LAB is ensuring the realization of this solution by:

- Creating offline working community of selected stakeholders, dedicated to the BUILD LAB community management
- Creating actively engaged community supporting the existence of cost-effective, user-friendly and easily manageable online webpage

Model highlights

PROJECTS FINANCEABILITY

When can a project be considered «financeable»?

1. Reasonable and proportionate payback periods if compared to the project's expected cash flows;
2. Project's cash flows = energy saving;
3. The energy saving must be quantifiable and «certified».

Parties:

1. Need to attribute a «risk class» to the party;
2. Building companies must be:
 - «Certified» and recognized on the market pursuant to national provisions, capable of choosing the best project for each and every case and entitled to certify the energy saving through energy audits;
 - Willing to take the risk of the investment's outcome by monitoring the results achieved (EPC contracts with end clients).

Examples of other existing replicable solutions, identified throughout the work on the project:

Smart Swap Building

Smart Swap Building is one of the strategic projects of ASTER and its aim is to refurbish the obsolete and energy demanding buildings of our cities by taking advantage of the unsold buildings stock that can be used as temporary dwelling (the "swap") for the people moving from the apartments to be demolished and reconstructed or deeply renovated.

Which specific problem(s)/obstacle(s) does the tool/solution target?

Lack of drivers for the demand (to give up to urbanisation costs to incentive interventions) and lack of solutions regarding management of residents moving during deep renovation projects.

What makes this solution more promising/successful than current solutions in the market?

It allows deep renovation or, at the limit, the demolition and reconstruction toward energy zero buildings, incorporating wider impact elements, such as smart mobility (car sharing), urban services improvements and urbanization costs elimination.

[Abitazioni intelligent \(Smart dwellings\)](#)

ACER and Schneider realized a pilot project about consumption measurement and smart monitoring: the project involved a social housing building with 6 apartments where Schneider Electric installed a wireless system for temperature control set on two scenarios, out of home and in house.

Which specific problem(s)/obstacle(s) does the tool/solution target?

Uncertainty associated with energy savings + limited insight in current energy performance of buildings

Results achieved even without practical training:

Average global saving per housing units: 16,13%

Global saving (net form "heat losses"): ~20%

Global reduction of gas consumption (gross value, included limit cases): 26, 6 %

[Deep renovation proposal \(Green Building Council + ENEA\)](#)

The proposal would apply to apartment buildings and would enhance deep renovation (consumption reduction from 40 to 80%). Through the creation of a dedicated fund (Cassa Depositi e Prestiti) the 90% of the intervention costs would be covered, while the 10% would be payed by the building owners. Payback period would be 10 years: the fund would recover the 65% from national funding (similarly to eco-bonus) using public finance to support the entire process. In other 10 years the remaining investment will return through the energy bills (savings). Renovation works would be market-led even if the verification and certification of quality would be made by a public third party.

Which specific problem(s)/obstacle(s) does the tool/solution target?

EE interventions limited to light renovations that don't allow significant energy savings and uncertainty of fiscal deductions.

What makes this solution more promising/successful than current solutions in the market?

Lateness in paying would be excluded (through the investment recovery thanks to the public finance and the Energy bills). An innovative aspect is the passage from fiscal deduction to incentive.