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Summary report on tools development

FRANCE – Bpifrance





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1. INTRODUCTION

BUILDINTEREST aims to improve the financial feasibility and attractiveness of investments in the energy efficiency through the creation of three national platforms (Italy, France, the Netherlands). Said platforms are meant to promote structural dialogue between all stakeholders of the sector: architects, builders, design offices, craftsmen, banks, investment funds and clusters to come up with new financing offers. They also must facilitate the development of financial tools and instruments that will enhance the attractiveness of investment in the sustainable building market.

In this context, Bpifrance, the French Public Investment Bank, set out to develop and animate an FR platform. Tools were implemented during the second year of the project to address some specific barriers of the FR EE sustainable building sector such as:

- **Market fragmentation and lack of dialogue within the same sector**
- **Investors' lack of interest in the EE sustainable building sector**
- **The inadequacy of existing loan offer on EE renovation**
- **The general audience's reluctance to engage in renovation works**

The organization of the FR platform is the following:

- Bpifrance, supported by PNO Consultants, coordinates the platform and runs the day-to-day activities
- The platform gathers close to 150 stakeholders with various backgrounds
- Smaller groups of stakeholders are involved in singular initiatives (pilot project, webinars, e-pitch session, events etc...)

The report describes on the three technical and financial tools developed within the framework of the platform, their objectives, their impacts, stakeholder engagement and the potential for replication from March 2018 to June 2018:

- **The online BuildInterest platform**
- **The renovation pilot project**
- **The Energy efficiency real estate finance leasing scheme**

One year of implementation gave positive results, such as:

- **The registration of 149 stakeholders on the online platform**
- **A total of 144 stakeholders attending the platform events**
- **Signature of a Memorandum of Understanding by xxx heavyweight stakeholders to carry out a renovation pilot project**
- **The definition of a new financial offer: an energy efficiency real estate finance leasing scheme**



2. A TRIAD OF TOOLS FOR DEVELOPMENT

2.1. THE ONLINE PLATFORM: ONE PLACE TO GATHER THEM ALL

2.1.1. Context

- Many EE companies develop innovative tomorrow's solutions but **a few truly benefit from the enough exposure to come forward and/or attract investment** (money, project or commercial partners etc...) to move up a gear
- Many investors consider EE investment as **risky and unprofitable**
- There is great number of actors in the EE sustainable building market but that is also why there is **lack of dialogue between them**
- One of the main barriers to energy efficiency measures in buildings is the investment cost per unit of energy saved. Innovation is key to bring these costs down. **Increasing investments in innovative companies** will thus make EE investments in buildings more attractive.

2.1.2. Description

The BuildInterest online community was launched on an already existing online platform called EuroQuity. **EuroQuity**¹ is the online matchmaking service created in 2008 by Bpifrance to connect the companies of growth with their development partners. Thought for companies, the platform has become the reference service for economic development players:

- Companies that wish to strengthen their equity capital,
- Investors: private equity companies, business angels, individual investors seeking investment opportunities
- Counsel who support them in their procedures



EuroQuity is home to various thematic communities in which economic actors are involved around common interests. As part of the BUILDINTEREST initiative, the community was officially launched on **April 12th, 2017** to:

- Foster matchmaking between innovative companies and potential investors
- Give greater visibility for companies
- Encourage the development of commercial, industrial and RDI partnerships

¹ EuroQuity's website: <https://www.euroquity.com/fr/home>





- Make EE companies “investment ready”



BI online community mainly gathers:

- Innovative SMEs and start-ups in the fields of the energy renovation and sustainable building in search of visibility. Many have been labelled because of the ingenuity of their solutions
- Public support structures that support the development of sustainable building sector
- Investors looking for start-ups/young SMEs willing to open their capital

BPI ran the day-to-day animation of the community through posting of contents, news and invitations, moderating exchanges between members and answering questions. Nonetheless, the goal of the community has always been to encourage spontaneous exchanges between members.

Focus on the online community activities/tools

E-pitching sessions



An **online pitch** was organized in December 2017 to matchmake EE companies with potential investors. The selected companies went through a session in real-life conditions with an expert commenting afterwards – one week before the event. Experts gave them tips to improve their online presentations. On D-day, the companies showcased their projects and needs for capital on an 8-12 slide PowerPoint document, visible on every attendee’s computer. **Pitches lasted 6 minutes, followed by a Q&A session of 2 to 3 minutes each, in which investors typed questions on the screen.** On the next day, all the registered investors get the links to the companies’ profiles on EuroQuity, where they can get the presentation documents from, and contact the manager. **Those who could not attend the pitch received a web link to watch the session.**

Two face-to face pitching sessions took place during the (inter)national events in April 2017 and March 2018 following a similar pattern (save for the web links). **Three additional sessions** were also held between **June 2016 and March 2017.**



(Inter)national events



The BI online community was officially launched back in April 2017 and the international event held in Bpifrance premises on March 9th, 2018 as a part of the BuildInterest Roadshow.

For both events, there also were **roundtables on EE sustainable building specific issues such as renovation of existing building stock according to green standards, energy performance in new buildings and access to the market for private players**. Key stakeholders took in these discussions such as the French Ministry of Ecological Transition, Cerway, the Smart Building Alliance, UNEP Finance Initiative and the French Federation of Real Estate Buyer Agents to name a few².

2.1.3. Impact

- **149** stakeholders registered on the online community
- **39** pitching companies
- **144** stakeholders who attended the events
- **97** investors attending pitching sessions
- **89** online visits from investors to check SMEs online profiles following the online pitching session
- **5** ongoing negotiations between SMEs and investors

2.1.4. Outlooks and potential for replication

The BI online community will keep on going after the end of BuildInterest:

- An assessment of the platform will be carried out in the few weeks following the end of the project in order to improve its organization/running for the next few years, reinforce its added value and launch additional activities
- Webinars and e-pitch sessions will be held once to twice a year. Each webinar will deal with a new EE specific subject
- The FR platform will be promoted (event participation, networking etc...) so that even more stakeholders join the online platform. The number of registered organizations must have doubled up by June 2019

² To learn more on both events, see “D 5.3: National event report” and D 5.4 “International Event Report”.





- Synergies with existing platform/initiatives will be undertaken to promote together solutions to solve EE renovation/building issues and develop common initiatives

2.2. THE RENOVATION PILOT PROJECT: ONE PRACTICAL CASE TO SHOWCASE THE EFFECTIVENESS OF EE RENOVATION

2.2.1. Context

- The renovation pilot project was meant to both address the **reluctance of private individuals to engage in EE renovation works** that are perceived as expensive as well as proposing **financing solutions better suited to EE constraints**
- In addition, setting up renovation works one or two “one-stop shop” EE companies was a way to tackle the market fragmentation issue – aside financial considerations, engaging in renovation often quickly turns into an obstacle course because **few companies offer comprehensive packages when private individual may need several types of intervention**

2.2.2. Description

The pilot action was selected halfway through the BuildInterest project as one of the practical actions to be implemented during the second year.

Several constraints and specifications were defined to reach these goals as well as underline the added value of the pilot action:

- **10 renovation works at the least**

The initial idea was to start with a pilot project for condominiums, but given the inertia of condominiums and especially the delays associated with voting on the work at the General Assembly of condominiums, it seemed more reasonable to move towards individual housing projects. Given the duration of the project, renovating more than 10 different housings was not realistic – yet 10 was a big enough number to experiment.

- **Reaching the « BBC Renovation » standard³**



The BBC label (Low Consumption Building) renovation was launched by the State in 2009, following the existing label for new housing. In the decree that defines it, it is specified that this label is intended only for single-family homes and collective housing built after 1948, put into service for more than 5 years and undergoing renovation works.

³ To read more about the BBC standard: “Les 7 clés d’une rénovation BBC”, Energivie Info, <http://www.energievie.info/page/7-cles-dune-renovation-bbc>



- **Works related costs must be 20% less than the current contract costs**

Since the main goals of the action was to prove that EE renovation works may be effective without being expensive, decreasing the works related costs was a given. However, the notion of “current contract costs” is not consistent for all cases; its definition and room for improvement depends on the type of EE service needed and the type of housing.

- **Two possible options: « basic » and « premium » offers**

There were discussions about providing several technologies from innovative companies registered on the online platforms so that customers may choose between various options. The costs might have varied but all in all, the end game remains efficiency.

- **Loan type: « home purchase + renovation »**



In a context of development of a new loan offer for EE renovation within the Crédit Foncier, the pilot action was thought to be a golden occasion to try and implement his new financial scheme. The financial support provided by the CFF includes the purchase of the house, renovation works in said house before moving in and “blank jobs”.

- **Renovation related costs must not exceed the purchase costs by more than 25%**

The expected range of work costs varies between 20 000 and 30 000 euros.

Above 25%, there is a risk that the mortgage price no longer corresponds to the combination “purchase price + renovation”.

- **Diagnostic phase: 2 months at the most**

The limitation was set to keep the offer competitive; a longer diagnosis phase might have scared away potential customers, who wish to spend as little time as possible out of their new housing.

- **Before and after measurements to assess the energy performance/gain**



It was about evaluating the energy performance before and after renovation works to show that the average energy consumption decreases *post* works.

- **Reaching the NF EN 15251 comfort standard**

Most people do not undertake EE renovation works for the sake of energy-efficiency only, they need the assurance their new home is more comfortable than the former hence the reference to this EU based norm that defines indoor environment criteria for the design and evaluation of the energy



performance of buildings – especially regarding air quality, light, noise, humidity and size of heating and air conditioning systems.

A clear customer process involving an experienced EE company used to intervene as a project supervisor was defined in order to attract private individuals. Sweetcom (the project supervisor) and the Crédit Foncier both agreed on the customer path:

1	<ul style="list-style-type: none"> ○ Presentation of the project by the client to Crédit Foncier (type of work and budget)
2	<ul style="list-style-type: none"> ○ First validation of the envelope by Crédit Foncier. This would also be an opportunity to make an initial sorting of the files on the basis of what Sweetcom is able to bring (question which will have been settled beforehand according to the real cases sent by Crédit Foncier). The Credit could send the customer a presentation on the pilot project and underline the interest of using Sweetcom's services under this scheme.
3	<ul style="list-style-type: none"> ○ Transmission of the file to Sweetcom which appreciates the possibilities of renovation. This diagnostic phase includes a potential eligibility of the client for financial assistance - telephone exchange between the client and Sweetcom.
4	<ul style="list-style-type: none"> ○ If the customer and Sweetcom agree, Sweetcom details in a proposal its field of intervention in regard to the customer's wishes: type of possible services - costs - deadlines...
5	<ul style="list-style-type: none"> ○ Signature of the loan contract between Crédit Foncier and the client (with Sweetcom's proposal accepted by the client attached)
6	<ul style="list-style-type: none"> ○ Launching of the works by Sweetcom according to the modalities described in the proposal

2.2.3. Impact

Quantifying the impact of the pilot project in figures during the life of the BuildInterest project is not possible yet since the pilot action was still a work on progress by the end of the project. Despite that, the pilot action still generated one positive impact:

- **The gathering of key EE sustainable building stakeholders around the table**



Implementing the pilot project was the occasion to have a core group composed of the most relevant FR stakeholders, such as **the Caisse des Dépôts et Consignation (CDC), Crédit Foncier de France (CFF) and Fibres Energivie**, working on a practical case to solve real-life issues. In addition, one of the few FR EE companies able to offer a global renovation package to customers (**Sweetcom**) and of the FR first digital cooperative for energy renovation (**Renocoop**) were present. Last, the recently



registered **Ma Maison en Mieux**⁴ also took part on the initiative and brought its experience the former shareholder of an EE semi-public company in Northern France. This collaboration resulted on the drafting of a **Memorandum of Understanding**, (see Annexure 2.3) a concrete piece of evidence that stakeholders wished to commit to the initiative. The MoU is currently under signature.

The pilot action also caught the interest of another important stakeholder in the FR sustainable building landscape, the **French Scientific and Technical Centre for Building (CSTB)**. As part of another EU project, the CSTB has developed an *in situ* measurement protocol enabling the overall insulation of the building to be identified at reception according to a controlled and robust procedure⁵. The test is meant to provide the industry with operational, simple, fast, accurate and inexpensive measurement tools that will enable professionals to measure the impact of collective work. The test is currently being deployed on houses under construction.

Although the CSTB did not join the pilot action in an official capacity both for organizational reasons and the heavy price of the test (5 000 to 7 000 euros per house), **it offered to apply the test to 1 or 2 houses for free once the selection of housings would be completed.**

Stakeholders involved in or interested in the pilot action

Organization	Stakeholder type	Mission
	Public institution	The Caisse des Dépôts et Consignations and its subsidiaries constitute a public group serving the general interest and the economic development of the country. Bolstering the ecological and energy transition is of its 4 priorities; the Caisse spent €15 bn between 2014 and 2017 to fulfil that goal.
	Banking establishment	The Crédit Foncier is a company specialized in real estate financing and services in France. It is aimed at all players who need an expert expertise to bring a solution to their estate issues: individuals, real estate professionals and real estate investors. The Crédit Foncier has five core businesses: real estate financing for individuals, financing investors and real estate professionals, financing public facilities, real estate services and financial operations.
	Public institution	The mission of the CSTB is to guarantee the quality and safety of buildings, and to accompany innovation from idea to market. The CSTB brings together multidisciplinary skills to develop and share decisive scientific and technical knowledge and to provide stakeholders with the answers they expect in their professional practice. The CSTB carries out 5 key activities: research and expertise, evaluation, testing, certification and

⁴ "A better home".

⁵ To learn more about the CSTB test: <https://www.youtube.com/watch?v=olsdfmM0DB0>





		knowledge dissemination.
	Cluster	The Fibres-Energivie competitiveness cluster was born in 2015 from the merger of the Alsace-Energivie and Fibres clusters. It is the only competitiveness cluster dedicated to building materials in French. Focused on the building sector, it brings together all the players in the value chain (from material suppliers to integrators): chemical industry, materials, building design, construction systems industry, energy equipment, construction trades, building maintenance and property development.
	EE company	The Sweetcom Group was founded in 2002 by the current Chairman of the Group. As a specialist in energy management, the Group assists individuals and companies in the energy transition; from the detailed diagnosis of housing needs to the proposal of adapted solutions, installation and maintenance.
Ma Maison en Mieux	EE company	Both founders took part in the creation of an EE semi-public company in Northern France – with a participation from the local government. Said company was meant to promote EE renovation work through support, identification of financing solutions and mobilization of a craftsmen network. Building on this experience, two former participants now wish to launch their own EE company.

2.2.4. Outlooks and potential for replication

Since the renovation works did not start before the end of BuildInterest, the focus for the next few months following the project will be on the identification and selection of houses to be renovated, the diagnosis phase and the measurement of energy performance before the renovation works start.

Once the pilot is finished, there will be another assessment of the average energy consumption post renovation works, feedback from the customers and an assessment of the overall initiative (organization, duration, effectiveness of the customer process etc...). Should the results be positive, Bpifrance, with the support of the stakeholders who took part in the pilot project, will **advertise the action**. All will mobilize their respective networks to **replicate the project on a bigger scale. A handbook will be available in two languages** so that French and international may rely on practical recommendations based on real-life cases.



2.3. THE PROPERTY LEASING SCHEME: A NEW FINANCIAL OFFER FOR OWNERS OF PRODUCTION FACILITIES TO EASE THE INTEGRATION OF ENERGY RENOVATION WORKS

2.3.1. Context

- When it comes to the current financial landscape for sustainable building, the weakest spot stems from **the lack of support for companies that owned their production equipment** when it comes to EE renovation or its financing remains, despite numerous financing schemes on the market
- Following through Bpifrance sustainable building financing policy
- Keeping up with the objectives fixed by the energy transition law for green growth (TECV⁶) – especially the goals on **decreasing energy consumption and improving the energy performance of the building stock**

2.3.2. Description

The property leasing offer proposed by Bpifrance aims at encouraging more SMEs and mid-sized companies to resort to leasing to undertake building acquisition projects incorporating an energy performance improvement component.

The proposition might be amended until its official validation so the exact details and characteristics of the offer must remain confidential until its official launch – all the more since the implementation of the offer depends on passing the next Finance Act (cf 2.3.4. Outlooks and potential for replication). Talks are being held between Bpifrance and the relevant Ministries⁷.

2.3.3. Impact

Quantification in figures of this new offer may only be possible from 2019 onwards. Main expected long-term expected impacts are, among other things:

- Modernisation and valuation of companies' real estate assets
- A spill-over effect of other banking establishments, which could gradually deploy this market offer
- Contribution to regional development and attractiveness through the modernisation and increased EE performance of professional real estate parks, particularly industrial ones

⁶« LOI n° 2015-992 du 17 août 2015 relative à la transition énergétique pour la croissance verte ». The law must help strengthening energy independence of the country, reduce French greenhouse gas emissions and give everyone concrete tools to accelerate green growth.

⁷ More details will be shared with the European Commission, in confidence





2.3.4. Outlooks and potential for replication

Bpifrance prepared the leasing proposition and managed to get it on the agenda of the relevant government officials and the parliament. Before the actual implementation though, the Parliament has to pass legislation to determine for a year the nature, amount and allocation of the State's resources and charges, and the resulting budgetary and financial balance: this is the Finance Act. The application of all tax measures depends on this law. Since the scheme Bpifrance wishes to develop on is a fiscal measure, it can only be implemented if included in the next Finance Act – the Act must then be passed by the Parliament.

Given the rigid process to follow before the actual implementation of the leasing scheme, the offer is not expected to be applied effectively until 2019.



3. ANNEXURES

3.1. Email invitation to investors for the e-pitch session (19th December 2017)

Dear all,

We made a selection of European companies in the energy efficiency & sustainable building sectors: seed, series A and B **from 300 k€ to 17 M€**.

All of them have been awarded or passed competitive selections. You can see them speak online 6 minutes each on **Tuesday December 19th at 3 pm CET** ([register](#))

This session is organized in the framework of of the [BuildInterest](#) Project.

You can also access the 100 profiles of the European companies in this sector in our dedicated [BuildInterest community](#). Just create an account on EuroQuity.

Here is the program. You are welcome!

Smart building / Predictive services and maintenance

Our platform continuously calculates the optimal building maintenance plan. Our different sensors are able to detect wood-rot, the use frequency of water pipes as well as the healthiest meeting room available within the facility. Data are then collected and analyzed to facilitate the work of facility managers on a daily basis.

Winner of Green Brick Award | 1,5 M€ sought

Energy Storage

We make a thermodynamic energy storage system starting at 100kW for one third of the cost of lithium-ion batteries. Our system has a 70% round-trip efficiency and very low maintenance costs due to our proprietary compressor design with no moving parts.

Prize-winner of Innovation 2030, a worldwide competition organized by the French Government | \$1M sought (seed round)

Sustainable building / Marketplace

We are the first marketplace of reusable and bio-based materials for construction. Millions of tons of waste material are dumped every years and we are able to save them, hauling them from the





deconstruction site to a nearby building site. We make this possible by using altogether our innovative user-experience designed digital tool, our data-machine and our experience in engineering consulting.

As a smart trading material place, we use waste and technology to build the future.

Prize-winner Green Tech Verte of the Ministry of Environment | 1M€ sought

Energy storage and efficiency / Heating

Motivated by the stricter energetic regulations in Europe and worldwide, our ambition is to create the heating of the 21st century. Our solution relies on a patented architecture of connected space heater in which a storage battery is embedded. It generates high energy savings and enables a cost effective self-consumption of renewable energy, for offices and dwellings.

Winner of the Grand Prize EDF Pulse 2016 | 3M€ sought

Sustainable building / Renewable materials

Our company produces an energy-efficient, sustainable building material. The company has developed an innovative cellulose insulation, made from 100% recycled fiber, for use in residential and commercial building applications which provides better thermal insulation than competitive products while using less than half the material thanks to an innovative production process.

We are active in the Italian Market and made some positive trials in France.

Winner of Climate-KIC Phase 1-2, Top50 at Slush Competition 2017 | 2,5M€ sought

Smart building/ Energy performance

Our solution is an innovative real estate platform. It centralizes all building data to make it easily and quickly accessible to users (asset and property managers, tenants, etc.). Smart and collaborative, the application enables lease holders to increase productivity and energy efficiency. We assist owners in digital and energy transition and we give value to their real estate assets.

Prize-winner of the call for projects "Digital pad" of the Plan for Building Digital Transition | 500K€ sought

Renewable energies / Solar thermal

Our company has developed a system to recover solar thermal and environmental energy without disfiguring the landscape through the use of ordinary-looking tiles that provide heating and hot water to the household.

Owner of 3 patents | Prize-winner of the Gold Medal at the 38th Salon of inventions of Geneva | 300K€ sought





Solar Energy / Energy Storage / IoT / Power Electronics

Our company manufactures solar inverters with integrated artificial intelligence, dedicated to self-consumption of energy with the use of storage. By choosing our solution, the user makes his household energy independent, with a lowered cost of generated kWh. Our technology is protected by an international patent.

Marketed by more than 30 distributors and available in 70 countries, with several thousand units already sold, our inverters are renowned for being innovative and reliable.

Rewarded by the French Tech pass | 17M€ sought

Sustainable building/ Renewable materials

Our company leads the world of building towards renewable construction: developing, building and marketing wooden buildings, made of small basic elements "Nano®" that allow the building to be mounted in record time, guaranteeing comfort, performance and reversibility, then to be dismantled to give it some new uses.

Part of the Materiaupole Paris | 1M€ sought

E-pitch is an online pitch session based on a web conferencing system. No installation is needed on your side.

> Companies will each have **6 minutes** to pitch, and investors may ask questions via a chat window throughout the pitch.

> You will be able to see the company profiles and their presentation documents on the EuroQuity platform after the event.

To get the web conference link, register now on : <https://goo.gl/forms/rmb82maeLyanMaSW2>

We'll gladly explain you the details if you have questions, please do not hesitate to contact us!

Best Regards,



3.2. List of pitching companies⁸

Online session		
Company	Nationality	Activity/technology
	FR	AgilCare develops a new way of building: RENEWABLE CONSTRUCTION. It is a durable wooden construction that can be transformed, disassembled at any time without impact or waste and reassembled on a new site for other uses.
	FR	Bazimo is a web application that centralizes all information related to office buildings to make them easily and quickly accessible to all stakeholders. This platform allows owners to regain possession of data and history concerning their buildings (administrative, technical, energy consumption monitoring, etc.) but also to process and analyze them to reduce financial and technical risks, while optimizing the energy performance of buildings.
	IT	Enerpaper srl was born with an innovative project, conceived and developed with the aim to create a natural product can isolate thermo-acoustic buildings. The use of cellulose stabilized, which through a particular production process, is able to turn into a product with characteristics of flame-retardant, anti-mold and anti-dusting, responding to the need to create a thermo-acoustic barrier against the dispersion of the buildings, exploiting the natural properties of the cellulose itself.
	FR	After several years of research and development, IMEON ENERGY, a French manufacturer of solar inverters, has developed IMEON, an innovative electronic system to make a home autonomous through the intelligent use of a solar installation coupled with batteries.
	FR	Designed in 2016, the Lancey heater combines a conventional radiator, an intelligent thermostat and a battery capable of operating it completely autonomously for two hours. The advantage of the system is that it consumes electricity when it is cheapest by charging overnight. The radiator works on inertia, with natural stones. It can thus

⁸ The list of pitching companies at the national and international event are available in D 5.3 “National event report” and D 5.4 “International event report”.





		provide a constant temperature by heating a room of up to 20 m2.
	FR	MATABASE is a market place and services for a circular economy at the service of the building industry. Pioneers in France in the recycling of building waste through our innovative market place, our team of experts in reuse and eco-materials supports local authorities, construction companies, design offices and architects in the implementation of a new circular building management model. We carry out re-use missions and prove that it is possible to re-use tons of materials within a local perimeter and without the need for storage.
	NL	Buildings produce lots of data: the building management system keeps track of the temperature, the ventilation unit measures CO2 levels and the security system knows if someone is present. All this data is useful on its own, but connect the data with each other, and the results are extremely powerful. Suddenly, one knows the amount of energy it takes the installation to create a comfortable and healthy indoor climate. One can make cleaning rounds more efficient by designing it on occupancy patterns. And best of all, one can automatically set out actions for improvement.
	FR	Toi-Sol developed a new solar recovery heat system relying on rooftiles as solar panels. Heat is recovered through tiles that have an ordinary exterior appearance. Thus, here the "solar collectors" are the tiles, and from a semantic point of view, it is not to confuse them with the solar collectors of the solar panels. The tiles thus acquire a double function, namely to ensure the roofing of the building - the laying of the tiles remaining classic - and absorb heat from solar rays, but also from the ambient environment and water droplets, to then transfer it to a heat transfer network installed below.
Cross-sectoral pitches		
	FR	BeeBryte is leveraging artificial intelligence to have commercial buildings, factories, EV charging stations or entire eco-suburbs consuming electricity in a smarter, more efficient and cheaper way while reducing their carbon footprint. Our software-as-a-service is minimizing utility bills with automatic control of heating-



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		cooling equipment (e.g. HVAC), pumps, EV charging points and/or batteries. We even take into account any solar energy to maximize self-consumption.
	FR	Eranova is a Biotechnology company expert in green chemistry for the production of biosourced plastic for packaging market both for Biodegradable plastic films and for durable rigid plastics; the resource is Starch coming from bloom of green Algae which are polluting and as waste does not have any value. Our technology does not rely on culture of cereals to produce plastics, which should be kept for the food industry.
	FR	Lumnex, a French company, has been designing, manufacturing and marketing public lighting equipment since 2011. Lumnex's innovative technology solutions save energy and reduce maintenance costs through centralized management. Since 2016, through its partnership with Silver Spring Network (Itron), Lumnex has offered a radio solution based on the implementation of a mesh RF network enabling the development of the connected city. Our network is capable of hosting connected objects (IoT) for an intelligent city.
	FR	In order to go further in optimizing energy consumption reductions, SENR is developing its own range of STEADY Go hybrid solar air conditioners which cover a power range from 12 kW to over 250 kW on a single network.
	FR	Sylfen, in partnership with the French Research Center on nuclear power, has developed a secure storage technology that can store very large quantities of energy. By combining hydrogen with traditional batteries, we can now safely store the amount of energy needed for any building. Thanks to hydrogen, a carbon-free energy carrier that can be used both to power clean fuel cell vehicles and to produce electricity and heat in cogeneration for the buildings, eco-neighbourhoods or cities of tomorrow, we can now rely on intermittent energy sources.





3.3. Memorandum of understanding of the renovation pilot project

MÉ MORANDUM D'ACCORD

(MoU)

Entre

CRÉDIT FONCIER DE FRANCE, SA au capital de 1 331 400 718,80 € dont le siège social est situé au 19, rue des Capucines, 75001 Paris, immatriculée au Registre du Commerce et des Sociétés de Paris sous le numéro 542 029 848,

prise en la personne de **Monsieur Alain David**, Directeur du Développement, domicilié audit siège,

ci-après dénommée le « **Crédit Foncier** » ,

d'une part,

Et

SWEETCOM, SAS à associé unique au capital de 700 000 € dont le siège social est situé au lieu-dit Chez Chevreuil à Laprade, 16390, immatriculé au Registre du Commerce et des Sociétés d'Angoulême sous le numéro 443 044 243,

Prise en la personne de FINANCIERE MIGNON, Société par actions simplifiée immatriculée au Registre du Commerce et des Sociétés d'Angoulême sous le numéro 494 442 338, Présidente,

Elle-même prise en la personne de **Monsieur Raphaël Mignon**, Président, domicilié audit siège,

ci-après dénommée « **SWEETCOM** » ,

d'autre part,

Et





PÔLE FIBRES ENERGIVIE, Association régie par la loi du 1er juillet 1901, dont le siège social est au 27 rue Philippe Seguin à 88000 EPINAL, inscrite au Registre du Commerce et des Sociétés d'Epinal sous le numéro 485 092 274,

prise en la personne de **Monsieur Jean-Luc Sadorge**, Directeur Général domicilié audit siège,

ci-après dénommée « **FIBRES ENERGIVIE** » ,

d'autre part,

Et

QUARTUS RESIDENTIEL, SAS au capital de : 40 000 000,80 € dont le siège social est situé à 1-5 Rue Paul Cézanne, 75008 Paris, immatriculée au Registre du Commerce et des Sociétés de Paris sous le numéro 380 497 701,

prise en la personne de **Monsieur Frank Hovorka**, Directeur de la Stratégie, domicilié audit siège,

ci-après dénommée le « **QUARTUS**» ,

d'autre part,

Et

RENOCOOP, Association régie par la loi du 1er juillet 1901, dont le siège social est au 22 rue de Savoie 75006 PARIS, inscrite en préfecture de la Somme le 16 juin 2016 sous le n° de déclaration (RNA) W802011824,

prise en la personne de **Monsieur Dominique LEFAIVRE**, Président, domicilié audit siège,

d'autre part,

Et

Monsieur Eric Parent, agissant au nom et pour le compte de la société **MA MAISON EN MIEUX**, société en formation, dont le siège social est situé au 3bis, rue Barthélémy 95160 Montmorency,

domicilié audit siège

ci-après dénommée « **MA MAISON EN MIEUX** »

d'autre part,





Et

BPIFRANCE Financement, SA au capital social de 839 907 320 euros, dont le siège social est situé au 27-31 Avenue du Général Leclerc, 94710 Maisons-Alfort Cedex, immatriculée au Registre de Commerce et des Sociétés de Créteil sous le numéro 320 252 489,

prise en la personne de **Monsieur Pascal Lagarde**, Directeur Exécutif, domicilié audit siège,

ci-après dénommée « **Bpifrance** »,

d'autre part,

Et

PNO CONSULTANTS, SAS au capital de 37 000 euros, dont le siège social est situé 7, rue Rouget de L'Isle, 75001, Paris, immatriculée au Registre du Commerce et des Sociétés de Paris sous le numéro 500 199 831,

prise en la personne de son représentant légal, **Monsieur Jamel BOUZENZANA**, Directeur Général, domicilié audit siège,

ci-après dénommée « **PNO** »,

d'autre part,

Crédit Foncier, QUARTUS, FIBRES ENERGIVIE, RENOCOOP, SWEETCOM, MA MAISON EN MIEUX, Bpifrance et PNO sont ci-après désignés collectivement par les Parties et individuellement par une Partie.

Il a été préalablement exposé ce qui suit :





Article 1 - Objet du Memorandum

Le présent Mémoire vise à définir les rôles et les attributions entre les Parties pour la réalisation d'un projet « pilote » de rénovation énergétique de logement dans le cadre du projet européen H2020 CSA BUILDINTEREST.

Commencé en avril 2016, ce projet de deux ans est destiné à mettre en œuvre des solutions opérationnelles pour augmenter l'attractivité des investissements dans la filière Construction durable et efficacité énergétique.

L'objectif premier de BUILDINTEREST est de servir d'aiguillon à la création d'une communauté de toutes les parties prenantes du bâtiment durable et de l'efficacité énergétique qui n'ont aujourd'hui pas de moyens structurés de communiquer entre elles.

La première année du projet a été consacrée à la validation d'une roadmap identifiant les barrières, moteurs et des solutions opérationnelles au sous-investissement dont souffre le secteur en France. La deuxième année est dédiée à la mise en place de solutions concrètes identifiées dans la roadmap. Pour la plateforme française, la solution retenue consiste en la réalisation de travaux de rénovation énergétique dans le cadre d'un projet pilote.

Article 2 - Objectifs du projet Pilote

Le but de ce projet pilote est la mise en place de chantiers de rénovation énergétique au cours de l'année 2017/2018 par des opérateurs employant des technologies matures et peu coûteuses sur du logement résidentiel, qui feront l'objet d'un soutien financier adapté aux conditions particulières de la rénovation.

Article 3 - Spécifications du Pilote

Les présentes parties se sont entendues sur les neuf spécifications suivantes :

- i. Le projet pilote vise la réalisation *a minima* de 10 rénovations sur du logement résidentiel;
- ii. Les rénovations opérées devront tendre vers un standard « BBC » Rénovation – équivalent neuf ;
- iii. Les coûts des travaux devront être inférieurs de 20% par rapport à ceux du marché si possible ;
- iv. Les opérateurs privilégieront des technologies d'efficacité énergétique simples et sûres mais devront aussi tenter d'intégrer dans la mesure du possible des technologies plus pointues identifiées dans le cadre du projet BUILDINTEREST ou par l'une de ses plateformes ;
- v. Les opérateurs tenteront de se rapprocher autant que possible de la norme NF EN 15251 relative au confort des particuliers



- vi. Le soutien financier ne se déroulera que dans le cadre d'opération de prêt « acquisition + rénovation » ;
- vii. L'enveloppe de la rénovation devra être limitée à 25% maximum du coût d'achat du bien ;
- viii. La phase d'étude et de diagnostic sera limitée à 2 mois maximum ;
- ix. La garantie de la performance énergétique portera sur des mesures thermiques réalisées avant et après les travaux par les opérateurs ;

Article 4 – Répartition des rôles

- i. Le Crédit Foncier et FIBRES ENERGIVIE identifient des dossiers de type « acquisition + rénovation » et proposeront à leur clients ou contacts de participer au projet.
- ii. Le Crédit Foncier propose un financement adapté intégrant une enveloppe de travaux « en blanc ».
- iii. L'agrégateur de service SWEETCOM propose des solutions adaptées au projet du (des) clients identifiés par le Crédit Foncier ou FIBRES ENERGIVIE, intégrant si possible des variantes de ces technologies. SWEETCOM intervient comme seul maître d'œuvre des travaux dans le cadre du projet et propose un processus de rénovation sur la base de l'enveloppe de travaux validée par le Crédit Foncier.
- iv. Bpifrance et PNO n'interviennent qu'en tant que coordinateurs et facilitateurs du développement du projet pilote.
- v. FIBRES ENERGIVIE, QUARTUS, RENOCOOP et MA MAISON EN MIEUX n'interviennent que comme observateurs du projet pilote. MA MAISON EN MIEUX pourra toutefois adresser à SWEETCOM ou au Crédit Foncier des prospects identifiés au travers de son réseau.

Article 5 - Responsabilités

Il est précisé que les présentes parties ne sont tenues que par une **obligation de moyen**.

Il est notamment attendu des opérateurs de travaux qu'ils aient recours à des technologies simples, tout en intégrant des variantes de ces technologies à chaque fois que cela sera possible et qu'ils se conforment à l'obligation de vérification de performance intrinsèque ainsi que celle de la vérification de la bande passante de la consommation énergétique.

Article 6 – Signatures

En foi de quoi, les Parties au présent Mémoire par l'entremise de leurs représentants dûment autorisés ont signé le Mémoire aux dates et jours indiqués ci-dessous et attestent qu'elles ont lu, compris et accepté les modalités et conditions du Mémoire telles qu'elles sont énoncées.





La date d'entrée en vigueur du présent Mémorandum est la date de la dernière signature apposée sur la page. Il restera en vigueur jusqu'au 1^{er} juin 2019.

_____ Date :

Alain DAVID, Crédit Foncier de France, Directeur du Développement

_____ Date :

Raphaël MIGNON, Sweetcom, Président

_____ Date :

Jean-Luc SADORGE, Pôle Fibres Energivie, Directeur Général

_____ Date :

Frank HOVORKA, Quartus Résidentiel, Directeur de la Stratégie

_____ Date :

Dominique LEFAIVRE, Renocoop, Président

_____ Date :

Eric PARENT, au nom et pour le compte de la société Ma Maison en Mieux, en cours de formation

_____ Date :

Pascal LAGARDE, Bpifrance Financement, Directeur Exécutif

_____ Date :

Jamel BOUZENZANA, PNO Consultants, Directeur Général

