



## CASH LAP ON ENERGY EFFICIENT RENOVATION OF SOCIAL HOUSING



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#### CONTEXT

- **Global context**

The national legal framework has been recently modified by the laws called « Grenelle 1 » and « Grenelle 2 ». The name “Grenelle” designates the Environment Round Table, instigated by the French President in 2007, whose aim was to define the key points of government policy on ecological and sustainable development issues for the coming years. For the first time, the Round Table brought all the civilian and public service representatives together (State, unions, employers, NGOs and local authorities).

#### **The “Grenelle 2”, adopted in 2010, sets higher energy performance standards:**

- Regarding new buildings

From 2013 (November 2011 in urban revitalization area), all constructions will have to get an energy consumption lower than **50 kwh/m<sup>2</sup>/year (BBC – low-energy buildings)**. A transitory threshold has been defined for 2015, where all buildings consumption will have to be lower than **57.5 kwh/m<sup>2</sup>/year**

- Regarding existing buildings

By 2020, energy consumptions will have to be reduced by 38% and 800 000 public housings will have to be renovated at national scale and reach the **renovation BBC-level (80kwh/m<sup>2</sup>/year)**.

#### Some measures also concern **co-owned properties**:

- From 2012, mandatory **energy audit** for co-owned properties with more than 50 units and with collective heating,
- Obligation, 5 years at the most after the audit, of putting on the general assembly’s agenda an energy saving works plan or an energy performance contracting.

It has been demonstrated that, in co-owned properties, an energetic renovation plan is often the way to consider a more global renovation. That’s why it is nowadays necessary to launch energetic audits combined with technical audits.

- **Local context**

Rhône-Alpes covers 43,698 km<sup>2</sup>, which represents 8% of the total surface area of France. This makes it **comparable in size to Denmark or Switzerland**. With nearly 6 millions inhabitants, our region has a **larger population than Scotland or Denmark**. In terms of demography and GDP (9,7% of total French wealth), Rhône-Alpes Region ranks 2<sup>nd</sup> in France (out of 22 Regions).

In Rhône-Alpes, there are 8 administrative units called “Départements”: l’Ain, l’Ardèche, la Drôme, l’Isère (where is located the Lead Partner Echirolles), la Loire, le Rhône, la Savoie and la Haute-Savoie.

- **Public social housing stock**

Social housing stock amounts to about **435 000 homes** or **16%** of main residences. Among the **40% of residents who rent** their homes, **one third** lives in social housing. The average energy consumption of the regional social housing stock rises up to 230kwh.

There are 85 landlords in Rhône-Alpes - more than 65% of them are public organizations.

93% of this housing is collective (compared to the national average of 87%). The rotation rate for social housing is 9.7% and the average occupation rate is 10.3 years. Overall vacancies remain low at 2.2%. The average number of persons per social housing unit is 2.43.

Two thirds of households have income lower than 60% of the resource ceiling required for access to social housing. **One fifth of occupants live below the poverty threshold**.

36% of occupants of low-rent housings are isolated persons and 18% are single-parent families. In total, households with children represent 46% of tenants.

For more than 15 years, the new supply of public housing (about 10 000 constructions each year) has not been large enough to meet the demand. As a result, construction has felt behind, **100 000 new housings are lacking**.

- **Private social housing stock**

Alone, public housing stock is not able to satisfy the needs of low-income households of getting affordable housing. Social function of private stock is essential. In Rhône-Alpes, there are 120,000 contracted homes in the private sector and 805 000 co-owned properties which represent 38% of the privately-owned main residences. Private stock houses 63% of low-income households of Rhône-Alpes, whether they are owner (30%) or tenant (33%). Private owners build and rent social housing following the same social requirements than the public ones.



- **The regional tool to promote excellence in renovation operations: Environmental Quality of Buildings standard**

In Rhône-Alpes a standard has been set up in 2010 to increase energy performance of social housing: the Environmental Quality of Buildings (EQB) standard. It grants subsidies and technical assistance to landlords or owners who match its criterion. It proposes a **global approach of the renovation** (architecture, energy, material, charges, accessibility, health, etc.) which is based on **technical, energetic and social diagnosis**.

This standard is in accordance with the Regional program for climate, which aims among others to reduce GES emissions of the building sector.

## PROBLEM ANALYSIS

- **Identification**

### Social issue: fuel poverty

Social housing stock houses frail population, who is particularly affected by housing prices raising (100% in 10 years). With the economic and social crisis and the continuous rise in energy costs, fuel poverty is constantly increasing.

A household is affected by fuel poverty as soon as over 10% of its income is devoted to paying their household energy bills. 3.4 millions households would suffer from energy poverty in France and over **300 000 households in Rhône-Alpes are affected by energy poverty**. We value Rhône-Alpes households which have reduced their heat consumption because of financial reasons to 25 000.

In private sector co-owned properties built between 1950 and 1975, which offered initially good quality housing in terms of surface area, heating, lights, etc, are from now on aging and energy inefficient. Their low-income occupants are thus in a situation of vulnerability.

Support retrofitting of social housing is therefore the best answer to reduce energy costs of tenants and improve health and comfort of livings.

### Energy overview of existing social housing in Rhône-Alpes

A study commissioned by the regional association of housing corporations (ARRA – Habitat) has been realised in 2008-2009 in order to give a precise picture of the existing social housing in terms of energy efficiency. This study highlights the **strong potential of energy savings which could be reached through an energy managing plan**.



**60%** of public housing was indeed **built before 1975** and the first Thermal Regulations. Under the terms of the Grenelle environment agreement, 130 000 homes are energy inefficient (**EFG energy classes**), that is **33% of social housing**.

On average, public housing stock in Rhône-Alpes consumes 227 kWh/m<sup>2</sup>/year on heating and hot water. There are almost 150 000 homes where energy consumption for just heating exceeds 250 kWh/m<sup>2</sup>/year. These energy-inefficient homes are for the most part in specific areas and concern collective buildings built between 1949 and 1976, featuring communal heating methods powered by gas, heating oil or a district heating network. The tower blocks **built in the 1960s are therefore the focus of a renovation programme** with the objective of reducing CO2 emissions.

However, this energy inefficiency of the regional housing stock has to be qualified: 43% of the existing housing stock falls into class D et 24% into class B and C. Since years housing associations have invested in renovation programme and so put housing stock in a good energy position which allows now to reach higher energy performance levels.

Concerning private social stock, over **300 000 primary residences are in co-owned buildings built between 1950 and 1975**, with energy consumption between **335 and 400 kWh/m<sup>2</sup>/year**.

- **Causes**

As described above the social housing stock is ageing and wide. The energy regulation has only been recently set up and if the need is known for long, strong programmes have begun only in the past ten years.

That is why the task of a global rehabilitation is technically challenging and needs strong political, organizational and financial support.

The main issue to ensure a steady and fast renovation rhythm is the lack of financing resources. The total amount needed to achieve renovation at the regional scale is very high. The national public financing are decreasing and landlords and local authorities can not fill the gap.

- **Consequences**

To ensure consistency between renovation operations (technically and energetically) an ambitious regional reference table has been set up. It is now commonly used and well recognized, and constitutes the framework of the regional renovation strategy.

This strategy is structured in 4 steps:

- Assessment of energy saving potential in the existing housing stock
- Classification of the different buildings considering their energetic efficiency, and focusing on the most energy-wasting (which present the strongest energy-saving potential)
- Assessment of investment needs for each building category
- Planning of renovation programme with all regional partners (State, Region, other local authorities, energy agency, financing agency...)

But in spite of this technical and strategic framework the main issue remains the great financial needs to achieve the renovation of the whole social housing stock. Global investment needs have



been estimated at 1,9 billion euros (26 000€ per accommodation, in order to renovate 268 000 accommodations). This amount is well above the current investment efforts and capacities.

All ERDF credits devoted to thermal renovation of social housing stock have been invested in the renovation of 3800 accommodations (12 millions euros) – and many projects could not get any ERDF. The regional network of social housing and thermal renovation stakeholders is now quite well structured and dynamic. A strong partnership has grown up between regional-scaled stakeholders – who also gathered together in Rhône-Alpes CASH ULSG.

## LAP MAIN GOAL – CITY ENERGY EFFICIENT SOCIAL HOUSING POLICY

- **What**

As the regional level is a very large one, Rhône-Alpes LAP's objectives are not to implement any "hard" pilot action. We intend to reinforce partnership between existing partners - mainly by developing new fields of cooperation -, and to widen the regional network of social housing actors. Our LAP aims to foster on good practices to capitalize on, regarding the priority themes we identified. The concretization of this experience-sharing and improvement method shall occur on infra-regional territories (mainly cities: the landlords – and all the renovation stakeholders – will set up renovation operations improved by CASH's learning and a reinforced partnership

- **When**

The partnership between LSG members is ongoing since many years, and some strong collaboration actions have already been made (such as the EQB standard setting up in 2007, and its actualization in 2012). Therefore some actions are to be made in a very short term (renovation operations financing for example), some in the middle term (eg: strategic axis on innovative financial tools), and some need time to build a new partnership a to find some budget and are therefore planned in a longer term (eg: training axis of the LAP)

- **How**

The whole LAP is based on a cooperation and networking process. That is why, regarding the strategic – and not operational – nature of our LAP, we intend to build partnership through meetings, workshops, dissemination and awareness raising operations, pilot operations financing, on-the-ground experimentation.

## STRATEGIC AXES

### 1. REGIONAL SUPPORT FOR RENOVATION OPERATIONS IN SOCIAL HOUSING

Following the regional elections and the change of executive committee in March 2010, the regional policy on housing is being reworked. Although they are still based on the same guiding principles (territorial solidarity and sustainable development), **new orientations have been passed in December 2010 by the plenary assembly in favour of a regional renovation plan.**



The **implementation of this plan in 2011-2013** is the principal action of this first axis. It will be lead by Regional Council in partnership with ARRA and ADEME. This plan will fit into the scheme of the QEB approach and will take advantage of the ERDF experience.

Elaborated since springs 2010, it proposes a **global approach of the renovation** (architecture, energy, material, charges, accessibility, health, etc.) which is based on **technical, energetic and social diagnosis**. It brings to housing corporations and to social co-owned properties assistance and financial support. Technical criteria have been adopted by Regional Council at the beginning of 2011 (February). This plan is a progressive one which has been revised after a 1-year test-period thanks to the assessment results and the outputs of CASH project.

## 2. THE STATE OF PLAY, MONITORING AND ASSESSMENT OF PUBLIC HOUSING RENOVATION IN RHÔNE-ALPES : DATA BASE AND STEERING TOOLS IMPLEMENTATION

This axis implies the implementation of several actions:

- ♦ **Study of characterisation of social housing stock** commissioned by the DREAL. Results would be known in *February 2011*.
- ♦ **Observatory of the advances of Grenelle in Rhône-Alpes in matter of housing, construction and city**, project lead by DREAL whose definition is *in progress*. It will consist in a map making and figures.
- ♦ **Regional observatory of the housing stock retrofitting and energy costs management**, lead by ARRA in partnership with Regional council and ADEME.

This observatory aims to give a view on 3 levels:

- 1) An energy cartography with the evolution of the performances ;
- 2) A mid-term view of housing associations investments in matter of renovation (part of energetic works, maintenance operations, etc.)
- 3) A long-term view on some representatives operations (30 to 50) with a comprehensive analyse of techniques, financial engineering, impact on charges, etc.

This action will have 2 phases

- *December 2010- April 2011*: a preliminary mission enabling the validation of the observatory perimeter, the relevance of the proposed data and to check the conditions of data collect and processing.
  - *April 2011-2013*: development of a collect tool and creation of a data base which will be easily used by housing corporations.
- ♦ **GOSPELS project**: « **generation of a monitoring tool of energetic performance in public housing**, *end of 2010-beginning of 2013*, partners : ADEME, ARRA, housing associations, Regional council, technical partners, etc.



It consists in the elaboration of a steering tool for the maintenance and operating of the buildings or for the leading of renovation operations. It aims at:

- Securing acquisition of regular and accurate data in order to provide housing corporations with automated reports which analyse all significant variables.
- Regularly correct maintenance of buildings thanks to monitoring indicators for all technical systems and thus avoid malfunctioning as over consumption of energy.

The first step for GOSPEL is to define a suitable methodology for energy performance monitoring in social housing and the second step will be to realize an operational prototype of software and make the housing corporations able to use and implement this prototype.

### 3. EXPLORATION OF FINANCIAL ENGINEERING: WHICH FINANCIAL TOOL TO FUND ENERGETIC RENOVATION OPERATIONS?

At the actual stage of the regional plan, it is planned to tackle the question of financial engineering in the framework of a **working group gathering departments of the Region**: Finances and Budget Department, Environment and Energy Department and Patrimony Department. These one have initiated discussions on financial tools related to energy efficiency.

With the project CASH, we plan to deal with the specific issue of housing and renovation and to **analyse/develop financial tools like Energy Savings Certificates, Energy Performance Contracting, invest funds**, etc. which could **complete the subsidize logic**.

In this respect, we will take advantages of what has already been implemented by the French State and Regional Council in matter of EPC in public buildings. Others actors like CDC and EIB would be invited to participate in our working group.

### 4. TENANTS ASSISTANCE AND AWARENESS ABOUT ENERGY EFFICIENCY

Regional level of our LSG, compared to city level, is the good one to :

- Initiate a **collective think about tenant consciousness raising** which could be then adapted by each housing associations with implementation of specific tools
- Guarantee a **function of dissemination of good practices** (notably those developed by the local action plan of Echirolles).

### 5. TRAINING OF PROFESSIONNALS

It is first necessary to make a **state of the art** in terms of existing training (pedagogic content, offer, targeted public) in order to precisely define the needs, which at first sight would concern mainly project managers, notably those in charge of rental management. Then, we could develop a **relevant**



**training offer on energy efficiency in existing buildings** as it has been done in the QEB approach on the new constructions.

## 6. PRODUCTION AND DISSEMINATION OF A COLLECTIVE KNOWLEDGE

On the basis of the previous strategic axis and **in a transverse way**, the following actions will be implemented in order to produce and disseminate collective knowledge on energetic renovation in social housing:

- **Promotion and capitalisation of CASH actions lead in Rhône-Alpes through the website [www.logementsocialdurable.fr](http://www.logementsocialdurable.fr) and our regional networks** like the ORHL network (Observatory of regional housing) animated by the State (Housing Regional Department) and the Region. The 2011 actions plan of ORHL will notably include workshops on co-owned properties renovation et on new thermal regulation. The general assembly, at the *end of 2011*, will address the **housing issue at the European scale and will expose first CASH results.**
- Constitution of a **think tank/discussion group on energy renovation of social housing in Rhône-Alpes**, based on the members of the LSG and the different regional partners it works with.

## ULSG INVOLVED

- **Who**

Its members are:

- Rhône-Alpes Regional Council Departments : Housing, Finances and Environment/Energy
- Rhône-Alpes Managing authority (State institution)
- ADEME Rhône-Alpes, French Environment and Energy Management Agency
- ARRA Habitat, Rhône-Alpes regional association of housing associations
- DREAL, Environment, Planning and Housing Regional Department of Rhône-Alpes under the authority of Sustainable Development and Housing French Ministry
- Confédération nationale du logement Rhône-Alpes, regional tenants association

- **Why**

- Rhône-Alpes Regional Council Departments: Political institution. Ability to mobilize the stakeholders and to ensure a regional coherence among all activities
- Rhône-Alpes Managing authority (State institution): ensures the global cohesion of UE policies implementation on Rhône-Alpes' territory.
- ADEME Rhône-Alpes, French Environment and Energy Management Agency: expertise in the energy-saving renovation of buildings





- ARRA Habitat, Rhône-Alpes regional association of housing associations: knowledge of the landlords (its members) and of the characteristics of the regional territory. Ensures the relationship with landlords at a regional level.
- DREAL, Environment, Planning and Housing Regional Department of Rhône-Alpes under the authority of Sustainable Development and Housing French Ministry. Carries out the national housing policies on the regional territory: knowledge of the territory and steering tools.
- Confédération nationale du logement Rhône-Alpes, regional tenants association. Ensures the relationship with tenants and promotes their view in LSG's works.



## WORK PLAN

- Activities, results, time schedule, budget, indicators

Axis	Activity	Result	Time schedule			Indicators	Financial resources	Stakeholders
			2013	2014-2016	> 2016			
1. Regional support for renovation operations in social housing (regional EQB renovation plan - public and private housing)	1.1. Follow up the regional renovation plan	Carry out renovation operations based on the EQB Renovation standard	x			<ul style="list-style-type: none"> <li>- Number of EQB-level funded operations</li> <li>- Number of EQB standard updating</li> <li>- Number of EQB standard presentation meetings</li> <li>- Number of connections to EQB-renovation hotline</li> </ul>	75M€ from 2010 to 2050	<b>Main stakeholders</b> - Rhône-Alpes Regional Council - Ademe - Landlords and Arra-Habitat - Tenants' organizations <b>Secondary stakeholders</b> - Financial organizations - Construction firms
	1.2. Carry out pilot renovation operations	Pilot operation with innovative techniques, financial engineering, partnership (public and private housing, collective or not). Promote existing operation and launch new projects		x	x	Number of innovative operations	5M€	
2. The state of play, monitoring and assessment of public housing renovation in Rhône-Alpes : data base and steering tools	2.1. Follow up the development of studies and steering tools	Develop a large panel of monitoring and assessment tools fitting each type of eco-renovation operation	x	x		Monitoring reports of existing tools	2M€	<b>Main stakeholders</b> - Ademe - DREAL - Arra-habitat



implementation	2.2. Design a database to gather data from studies and steering tools	Regularly updated central database gathering the results of studies and steering tools. In order to have a complete view of the state of housing renovation in Rhône-Alpes			x	- Existence of the data base - Number of updates per year	30 000€	- Regional Council <b>Secondary Stakeholders</b> - Organizations for housing assistance
3. Development of financial engineering : which financial tools to fund energetic renovation operations ?	3.1. Organization of a workshop about financial engineering for eco-renovation	Communication about innovative financial tools, their opportunities, the way to implement them at a regional level. Targeted public: social housing and energy efficiency organizations, local authorities.	x			- Workshop report - Number of participants	10 000€	<b>Main stakeholders</b> - Landlords and Arra-Habitat - Regional Council - Echirrolles USLG <b>Secondary Stakeholders</b>
	3.2. Experimentation of innovative financial tools on the ground	Strategic action plan to experiment Energy savings certificates and develop Energy performance contracts (pilot operation or other, eg technical assistance to landlords)	x		x	- Number of pilot operations - Publication of studies and analysis reports	50 000€ (studies and engineering only)	- Caisse des Dépôts - Rhône Alpes Energie Environnement - Tenants' organizations - European Investment Bank

<b>4. Tenants assistance and awareness about energy efficiency : dissemination of good practices at a regional level</b>	4.1. Workshop on inhabitants' involvement with all regional stakeholders of the renovation process	Sharing experiences and paving the way to improve inhabitants involvement: inform stakeholders, create dialog between them, involve the landlords for a better cooperation		x		- Workshop report - Number of participants	10 000€	<b>Main stakeholders</b> - Regional Council - Ademe - Landlords and Arra-Habitat - Tenants' organizations <b>Secondary stakeholders</b> - Firms responsible for exploitation and maintenance - Project manager and Construction firms
	4.2. Produce a regional guide on good practices for tenants' assistance	Guidebook setting up the basis of a regional code of conduct considering cooperation, involvement and awareness raising of the tenants. One part of the guide targeting the tenants themselves and the other one targeting all other stakeholder of the renovation project cycle			x	- Guidebook publication - Number of guidebook presentation meetings	30 000€	
<b>5. Professional training</b>	5. 1. Set up a training programme for each targeted group	Multidisciplinary training tackling each thematic of the LAP, with a focus on the specific need of each public. To ensure a common knowledge basis and awareness raising		x		- Number of training set up by thematic	200 000€	<b>Main stakeholders</b> - Regional Council - Ademe - Landlords and Arra-Habitat - Firms responsible for



	5.2. Training of all the stakeholders of pilot eco-renovation operations	Training each team working on a new renovation project			x	- Number of training participants - Number of professions targeted in each training session	1M€	exploitation and maintenance <b>Secondary stakeholders</b> - Training firms - Organizations for housing assistance
<b>6. Production and dissemination of a collective knowledge (ORHL ; logementsocialdurable.fr ; regional experience sharing platform)</b>	6.1. Organization of an ORHL workshop about energy efficiency in social housing	Awareness raising about the project cycle of eco-renovation operations, issues and solutions as discussed further in the other LAP axes		x		- Workshop report - Number of participants	6 000€	<b>Main stakeholders</b> - Regional Council - Ademe - Landlords and Arra-Habitat - Tenants' organizations - Organizations for housing assistance
	6.2. Collaborative website devoted to the renovation of social housing : development and updates	Collaborative platform opened to the regional players of social housing, energy efficiency, local authorities (could host data from the monitoring database, general information pages, CASH outputs)			x	- Website creation - Number of connexions - 6-months update	30 000€	



## Description of activities per axis

### 1. Regional support for renovation operations in social housing (regional EQB renovation plan - public and private housing)

In partnership with ARRA and ADEME, RA Regional council has developed an environmental quality standard to support renovation operations in social housing: Environmental Quality of the Buildings (*QEB – qualité environnementale du bâti*). Its financial support to landlords depends on the respect of the standard. The contents of this standard have been elaborated together with ARRA-HLM and ADEME, and EQB standard is now recognized by all Rhône-Alpes landlords.

**EQB standard is the core intervention of RA Regional council to support social housing renovation.** This is why the main members of USLG are ARRA and ADEME, the two partners in the setting up of EQG standard. Therefore this axis is the main one in the LAP.

#### 1.1. Follow up the regional renovation plan

The main activity of our LAP consists in developing the influence of this standard, in order for the landlords to be more ambitious when setting up a renovation operation. The overall goal is to support a high quality level in renovation operations, and to convince landlords to launch new ones thanks to Regional council subsidies.

The role of CASH in this target is not really to increase the results of this renovation plan, as it is already well developed. It is weather to replace it in a more integrated approach: CASH will strengthen the partnership and introduce new cooperation topics. These topics constitute the 5 other axis of the LAP.

#### 1.2. Carry out pilot renovation operations

EQB standard has a BBC+ level (Low Consumption Building), which is a level of energy excellence. In order to improve the required criterion for this level, to convince landlords that such operations are achievable and economically viable, and to develop the technology, it could be necessary to set up some pilot operations. They could benefit of an extra-subsidy if they really fit ambitious targets and are socially exemplary.

The main obstacle to launch such operations will be to find the required extra financial resources, and to design technical requirements both ambitious and incentive.

### 2. The state of play, monitoring and assessment of public housing renovation in Rhône-Alpes: data base and steering tools implementation

In Rhône Alpes many stakeholders are involved in supporting energy renovation of social housing. They know each other and work mainly in partnership. Their respective interventions cover diverse but complementary fields. Therefore a centralization of all information is needed, as well as developing steering tools to improve the coordination of their interventions.

Two kinds of steering tools are needed: one at the scale of an operation (energy consumption monitoring), and the second at the regional scale (coordination).

#### 2.1. Follow up the development of studies and steering tools

Different studies have been launched to monitor the technical efficiency of the operations (energy consumption, CO2 emissions...) and to spot the main needs of renovation. The main are GOSPELS project (ADEME), one to monitor production costs, and one to monitor the state of social housing stock improvement (DREAL). They have been set up in cooperation between USLG members (before the launch of CASH project). The USLG will support the diffusion of information coming out of these studies, and eventually identify new needs of studies.

#### 2.2. Design a database to gather data from studies and steering tools

As studies are launched by different organizations their results, even if shared, are not centralized. This database could improve the sharing of information on the state and efficiency of social housing renovation in Rhône-Alpes. The creation of this base has been suggested by the USLG. It will probably take time to decide which of them will support the costs and the duty to update the database, and to negotiate the data sharing rights between the involved organizations.

### **3. Development of financial engineering: which financial tools to fund energetic renovation operations?**

This axis has been identified as a priority by our USLG. In a context of lack of financial funds for both landlords and public organizations, increasing the use of existing financial tools and develop new ones is a requirement. The main tools on which our works will focus are Energy Savings Certificates, Energy Performance contracts, and the financial contribution of the tenants themselves. All of these tools are known and even used by some landlords, but remain secondary in the budget of a renovation operation.

#### 3.1. Organization of a workshop about financial engineering for eco-renovation

One of the main problems in Rhône-Alpes regarding financial tools is that they are not well known. Organizing a regional workshop to spread out information about it could be part of a strategy to convince landlords to profit by financial engineering. This workshop could gather all stakeholders of retrofitting operations: landlords, public organizations, tenants' organizations, public and private financing organizations...

As stakeholders' interests are sometimes different regarding funding, this workshop could be a way to launch a constructive regional debate on financial engineering in the social housing sector.

#### 3.2. Experimentation of innovative financial tools on the ground

Our LSG intends to experiment innovative financial tools. The aim is to test whether they fit or not to the specificities of energy renovation operations in the social housing sector.

First and foremost we intend to:

- foster the use of Energy savings certificates. A study will be launched in order to propose ways of improvement.
- Experiment an Energy Performance Contract on an operation on the ground. As we need a concrete operation to initiate it we work in partnership with Echirolles USLG on this topic.

The USLG intends as well to work on the issue of requiring financial support to the tenants.

### **4. Tenants assistance and awareness about energy efficiency: dissemination of good practices at a regional level**

The final efficiency of a renovation depends on the tenants' behaviour. Without them using the new devices as forecasted the energy consumption drop can be much lower than expected. That is why tenants have to be aware of the energy issue, of the advantages they have to use energy in a moderated way, and of the way to use the new equipments installed in their home. This awareness raising and information should be displayed on the ground by landlords. This is why at a regional level the USLG intends to play the role of experience-sharer and support to good initiatives.

#### 4.1. Workshop on inhabitants' involvement with all regional stakeholders of the renovation process

Inhabitants will be well informed and willing to "play the game" of energy saving if they have been involved in the renovation process until its beginning. Landlords try to involve inhabitants in this way, but they are often dissatisfied. That is why a regional workshop about tenants' involvement could be a place to bring all stakeholders to discuss about why, how, when inhabitants could take part to the renovation process. It could be a place of pilot experiences-sharing. Its main goal would be to raise awareness about the need of involving inhabitants to ensure the final efficiency of a renovation operation.

#### 4.2. Produce a regional guide on good practices for tenants' assistance

The regional level is not appropriate to manage the direct relationship with the tenants. It can therefore produce some guidelines of recommendations, and disseminate good practices about tenants' assistance about energy efficiency. This could be done through a guide targeted on tenants themselves, on landlords, as well as firms working on the operations.

### **5. Professional training**



Improve the social and environmental efficiency of a renovation operation requires a change in the way of leading the works. The firms responsible for the works and maintenance need to be more trained on how to deal with inhabitants' expectations and needs, how to help them to get used to their new equipments, how to use more energetically efficient technology...

RA Region is responsible for regional professional training programs. ARRA trains landlords to operations set-up. ADEME carries on trainings on energy efficiency. This is why our partnership, linked with landlords and firms, could set up a training plan to improve the regional field of thermal renovation. Two main obstacles are identified in this axis. The first is the need to build a strong partnership (maybe public-private) to identify the needs and to set up a broad-scale training plan. The second obstacle is the requirement to find out new financial resources to carry out the plan.

5. 1. Set up a training programme for each targeted group

The targeted groups could be: works firms (administrative staff and workers), maintenance firms (idem). If ambitious, this training plan could be a part of a regional training program toward all professionals of thermal building renovation field. (There is a need to develop such skills in the region in order to build up an economically and technologically competitive field).

The training program could have two parts. The first one could be institutionally supported by the Regional council, and could target the training of young future professionals. The second one might be supported by ADEME, private firms, some public organizations, and target active professionals.

The ambition of this training is to cover several topics (social, technique) and it requires a broad and well-structured partnership.

5.2. Training of all the stakeholders of pilot eco-renovation operations

When designed the training plan will have to be launched and carried out. This will need a communication plan toward the firms, and maybe requires some incentives to convince them of the advantages they could gain if training their staff. This will take time and requires strong financial needs and political support.

Thus our LAP proposes firstly to test this training program on the firms involved in the pilot operations (axis 1). It could be a way to communicate about the training, to test its quality and to get a first feed-back from the firms on it.

**6. Production and dissemination of a collective knowledge**

This axis aims to bring together the results of the whole LAP, and more broadly, of all the works done by the regional partnership on social housing thermal renovation. Gathering information could increase the visibility and the efficiency of interventions done at the regional level.

6.1. Organization of an ORHL workshop about energy efficiency in social housing

ORHL workshops (Regional Housing Monitoring) regularly gather regional housing actors to discuss about a specific topic. Energy renovation of social housing could be the theme of such a workshop. It could be a place to share CASH results and to launch a regional dialog on this important subject.

6.2. Collaborative website devoted to the renovation of social housing: development and updates

In a longer term a website could be set up to gather the results of the exchanges. It will ideally contents the database (axis 2), and be an improved version of the existing website [www.logementsocialdurable.fr](http://www.logementsocialdurable.fr). (This website is devoted to EQB standard but not specifically to the thermal renovation.)

- Stakeholders analysis related to activities

<b>Problem</b>	Eco-renovation of social housing
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<b>Stakeholder</b>	<b>Interest for the activity</b>	<b>Specificity / skills</b>	<b>Capacity to involve in the activity /</b>	<b>Required support / sources of motivation</b>
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			obstacles	
<b>Main Stakeholders</b>				
Rhône-Alpes Regional Council	Co-elaboration of renovation standards. Strategic planning. Co-funding (relative to the environmental and housing policies). Networking, experience-sharing	Ability to mobilize the stakeholders and to ensure a regional coherence among all the activities	Additional working load compared with usual housing activities	
Ademe	Co-elaboration of renovation standards. Technical expertise	Expertise in energy-saving renovation of buildings, and in quantification and monitoring of the energy consumption	Additional working load compared with usual housing activities	
Arra-Habitat	Co-elaboration of renovation standards. Identification of efficient pilot activities, information from and to the landlords	Knowledge of the landlords and of the characteristics of the regional territory	Additional working load compared with usual housing activities	
Landlords	Buildings' owners	Efficient management of the housing stock ; relationships with the inhabitants	Strong economic constraints / lack of resources to invest	
Tenants' organizations (CNL)	Support tenants' interests	Consultations to identify tenants needs and their solutions, to set up and implement solutions with the tenants	Not much consulted and federated. Few human resources	Consult them more systematically
<b>Secondary stakeholders</b>				
Echirolles Local Support Group	Experiment some innovative instruments on pilot operations	Apply the designed financial instruments to a concrete operation	High technical requirement, pilot operations to be identified	Need to join the thematic working groups to acquire the required technical knowledges
DREAL	Carries out studies on the renovation of public buildings and private social housing in Rhône-Alpes Region	Sets up the national housing policies on the regional territory : knowlegde of the territory and steering tools.	Existing projects and studies / Additional working load if news studies to launch	
Financial organizations	Can fund renovation projects	Use of innovative and profitable financial instruments	Emerging and risky market	Convince them of the economic profitability of the operation



Project manager firms	carry out the renovation works in a more efficient way	Adapt the technical characteristic of the works to the particular nature of the pilot action	Costly technical and organizational changes	Demonstrate them the economic profitability of the operation and the advantages for public relations
Firms responsible for exploitation and maintenance Organizations for housing assistance (FAPIL, Fondation de France, Compagnons bâtisseurs...)	Adapt the project management to involve tenants better. Staff Training.  Knowlegde of the tenants, expertise in social housing sector	Technical management of the system, contact with the inhabitants  Communication of informations, lobby	Need to adapt the classical project cycle : resistance to change and learning process  Lack of structured datas and human resources Priority has been given to investments in energy-saving renovation / Use of innovative financial tools remains low	negociation / contract clauses, and awareness raising on the efficience of a participatory approach  Best promotion of their activities  Need to be convinced of the efficience of the innovative financial tools
Caisse des dépôts	Provides loans for the local authorities	Ability to try out innovative instruments and to provide funds		Need to be convinced of the efficience of the innovative financial tools
Rhône Alpes Energie Environnement	Advisor of local authorities and private firms on energy savings	Provides advise on financial tools for energy savings	Not specialized on financial engineery knowledge of innovative financial instruments / do not take part in the design of these instruments	Need to be convinced of the efficience of the innovative financial tools
European Investment Bank	Potential partnership to create new financial instruments	Support for innovation, financial support		Need to be convinced of the efficience of the innovative financial tools, and of the possibility to develop them at a large scale Market opportunities if clear training requirements for the professionnals (e. g. to achieve a standard)
Private training firms	Provides training programmes for the main stakeholders	Training sessions for various publics	Costs to set up the new training programmes ; risks of a new market	

▪ Risk analysis and Logical framework

Goal	Indicators and how to verify (Monitoring)	Risks & assumptions
<b>Objective 1.</b> Regional support for renovation operations in social housing		
<b>Output 1.</b> The social housing stock in Rhône Alpes is renovated in order to achieve the national GHG reduction objectives	Measure of existing social housing stock GHG emissions reduction	Ability to measure GHG emissions reduction
<b>Activity 1.1.</b> Follow up the regional renovation plan	Number of EQB-level funded operations Number of EQB standard updating Number of EQB standard presentation meetings Number of connections to EQB-renovation hotline	No changes in political guideline supporting the regional renovation plan Sufficient financial resources
<b>Activity 1.2.</b> Carry out pilot renovation operations	Number of innovative operations	Cooperation between stakeholders to design and run such operations
<b>Objective 2.</b> The state of play, monitoring and assessment of public housing renovation in Rhône-Alpes		
<b>Output 2.</b> The regional renovation process can be monitored and strategically planned	Regional database and committee for the renovation planning and monitoring	Leadership assumed by one organization to coordinate partners and invest in this action
<b>Activity 2.1.</b> Follow up the development of studies and steering tools	Monitoring reports of existing tools	No issue or changes during the works
<b>Activity 2.2.</b> Design a database to gather the data extracted from studies and steering tools	Existence of the data base Number of updates per year	Sufficient financial resources Cooperation to share data and tools
<b>Objective 3.</b> Development of financial engineering		
<b>Output 3.</b> Find out sufficient financial resources to support the regional renovation process	Increased financial amount for renovation actions Decrease of subsidy share in the total	No changes in financial and energy regulation Technical skills available to design new financial tools
<b>Activity 3.1.</b> Organization of a workshop about financial engineering for eco-renovation	Workshop report Number of participants	Interest of the targeted groups Technical skills available to explain the financial tools

<b>Activity 3.2.</b> Experimentation of innovative financial tools on the ground	Number of pilot operations Publication of studies and strategic position papers	Availability of suited pilot operation, of technical and financial resources Cooperation between stakeholders
<b>Objective 4.</b> Tenants assistance and awareness about energy efficiency		
<b>Output 4.</b> Inhabitants are involved in the renovation process of their houses	Behavioural change assessed by field surveys	Involvement of the landlords/owners Inhabitants interest in getting involved
<b>Activity 4.1.</b> Workshop on inhabitants involvement with all regional stakeholders of the renovation process	Workshop report Number of participants	Interest of the targeted groups
<b>Activity 4.2.</b> Carry out a regional guide on good practices for tenants assistance	Guidebook publication Number of guidebook presentation meetings	Availability of an inventory of existing exemplary operations in Rhône-Alpes
<b>Objective 5.</b> Training of professional		
<b>Output 5.</b> All renovation stakeholders know the whole renovation process cycle and include good practices in their jobs	Increased partnership and change in working methods assessed by field survey	Willingness of behavioural change No increased costs for the stakeholders
<b>Activity 5.1.</b> Set up a training programme for each targeted group	Number of training set up by thematic	Availability of an assessment of training needs Sufficient financial resources
<b>Activity 5.2.</b> Training all the stakeholders of pilot eco-renovation operations	Number of training participants Number of professions targeted in each training session	Setting up a regional training scheme Involvement of the targeted groups Sufficient financial resources
<b>Objective 6.</b> Production and dissemination of a collective knowledge		
<b>Output 6.</b> The regional set of measures to support thermal renovation is well-known and convinces landlords and owners to invest in their housing stock renovation	Number of landlords and owners soliciting regional support for thermal renovation of their social housing	Existence of a regional communication and awareness raising strategy

<b>Activity 6.1.</b> Organization of an ORHL workshop about energy efficiency in social housing	Workshop report Number of participants	Compilation and analysis of CASH outputs and capitalization on regional renovation plan
<b>Activity 6.2.</b> Collaborative website devoted to the renovation of social housing : development and updates	Website creation Number of connexions 6-months update	Availability of financial resources Leadership of one partner to manage the website Cooperation to fill in and update the website

## PRIORITY ACTIONS / PILOT OPERATIONS

Considering its large-scale approach, Rhône-Alpes' LAP is focused on strategic actions. The main issue to ensure a high level of housing rehabilitation is to find out financial resources. In 2007-2013 Operational Program, ERDF finances renovation operations of the regional social housing stock. ERDF has been immediately programmed by regional social housing landlords, but all needs have not been fulfilled. (15M€ ERDF were devoted to energy renovation of social housing). Thus much more money is needed to achieve our energy efficiency objectives for the social housing sector. This priority is related to the first and the 3<sup>rd</sup> axis of our LAP (regional renovation plan and financial engineering).

Besides this “traditional” subsidy model, the priority action of our LAP is to develop the use of new financial tools such as Energy Saving Certificates (ESC) and Energy Performance contracts, and to raise awareness about UE tools (such as JESSICA).

- Regarding **ESC**, one problem is that some landlords can not benefit of them due to regulation constraints (the amount of energy savings is too low). In the framework of CASH ULSG, Rhône-Alpes Region will launch a study to find out solutions to pool ESC at a regional scale in order for these landlords to reach together the critical size to sell them. To put in place the tool proposed by the study, investments will be needed. **ERDF could cover some of these investment costs** (e.g.: fund the capital of a public society which could sell and redistribute ESC for the landlords) – which are not yet budgeted.
- Rhône-Alpes ULSG is working as well with Echirolles USLG to set up a feasibility study for the launching of an Energy performance contract on pilot renovation operations in Echirolles.

These two pilot operations represent some of the first steps toward a global reflection about a new financing scheme for the social housing renovation operations. To achieve this ambitious project, **engineering support is needed and that is where UE could support our project**. ERDF credits could be used to finance technical support (experts in economics, law, energy), and to finance some pilot investments (e.g.: public society to pool ESC). In this process, coordination costs with all the stakeholders could be high (local authorities, national authorities, landlords, banks, energy firms, associations...)



The other axis where a clear financial gap exists is the one related to training. Here UE could provide funds to:

- Pay professionals to set up a training program for stakeholder of the renovation project cycle (it needs a background work to assess the lack of training and of knowledge in order to design efficient training sessions)
- communicate about this new training program – fundamental, heavy and 1-2 year long work to be sure that each stakeholder knows about it and see the advantages of being trained
- Hand out the training sessions (1 to 3 years), capitalize on their results, update them and set up new programs in an improvement process.

This activity could be co-coordinated by Rhône-Alpes Region (competent to set up and finance professional training), ADEME (already providing training sessions on energy savings), ARRA-HLM (who trains the landlords on project management).

## POLITICAL COMMITMENT

Rhône-Alpes' LAP is supported by the Vice-President of Rhône-Alpes Region in charge of Housing policy. She attended two CASH seminars and follows LAP evolution, asking to strengthen the partnership and develop activities on some axis (eg : axis "citizens involvement").

Rhône-Alpes Regional council voted the launch of CASH project in 2010 (délibération n°10.10.277). It has been reminded about CASH when voting the launch of a study on financial tools in the framework of the project (July 2012). The report presented to the vote has informed the Regional Council about the LAP contents.

The CASH project has been orally presented to the elected committee responsible for housing policy, on September 27<sup>th</sup> 2012. RRA local coordinator and one member of City of Echirolles have led this presentation.

Rhône-Alpes Region is also committed in CASH final conference organization (with the help of Rhône-Alpes delegation in Brussels), which some of its elected representatives and directors will attend.

The LAP has then a non-official status but it shall stimulate the political decision.

CASH is built on a strong pre-existing partnership between Rhône-Alpes Region, ARRA-HLM and ADEME which is has a strong political and technical support. Therefore the project is devoted to set up new cooperation axis in this partnership and to widen it by encouraging the participation of new stakeholders. Thus, these new CASH activities will benefit of this solid partnership to thrive on the long term.

## REFERENCES

Information about EQB standard: <http://www.logementsocialdurable.fr>



## TOOLS DEVELOPED

### **EQB standard**

The main tool developed by the partnership is the EQB standard (the reference tables can be downloaded on the web-site above – in French). It has not been designed by CASH activities however as it has been launched in 2007.

### **Study on energy savings certificates in thermal renovation operations**

Regarding financial engineering a study will be launched in October 2012. It will focus on energy savings certificates (ESC). In France the regulation does not allow landlords with a small housing stock to sell them (indeed the ESC amount is below a bottom limit). Therefore the study will have two aims:

- Evaluate the amount of potential ESC that can not be used by these “small” landlords. If aggregated, the amount of ESC will probably raise above the limit. Therefore the study shall suggest how to put the ECS together in order to sell them and to redistribute the benefits to the landlords.
- Propose a role for RA Region in this process. Is it efficient and relevant for the Region to take a role in this process? Then how could RA play a role? Shall it be the organization that will sell ESC for the landlords? Shall it support another which will do it?

The technical requirements of the study have been designed together with USLG members. The results will be shared among them. The study will last 4 months and will be partly funded by CASH USLG budget.

### **Study on Energy Performance Contracts in thermal renovation operations**

Our USLG is working together with Echirolles USLG on designing a study on Energy performance contracts (EPC). These contracts give an energy efficiency target to the firm responsible for the renovation works. Its full payment will depend whether or not this target is achieved.

Echirolles’ landlords are interested in testing such contracts, but they have never been used for such operations in Rhône-Alpes, and very seldom in France. This is why we firstly intend to launch this study, which aim will be to assess if EPC are relevant for the targeted operations.

If they seem to be relevant another study could be launched to support the landlords in designing their EPC. It would be a very innovative experience for the social housing sector in France.