

## National toolkits launched

The country specific versions of the [technical](#) and [engagement](#) toolkits are now available on the LEAF website.

Designed to be used together as a step-by-step guide for the retrofit of apartment buildings, the technical toolkit provides guidance to identify the most appropriate energy improvements, and information to assist with the decision making process.

Whilst the engagement toolkit acts as a project management guide to support the process. Providing information on important considerations before, during and after the retrofit including: the benefits of retrofit, resident liaison, planning the project and the permissions required.

## Case study progress

LEAF has 24 case study buildings across Europe. These buildings are a key tool for the project. Initially they helped partners to recognise the main barriers to the retrofit process which provided the basis for the technical and engagement toolkits.



Now, two years into the project a number of the case studies are making good progress, in particular Telford road, Edinburgh, where external wall insulation is currently being fitted. Energy efficiency measures are also due to be installed at a case study building in Saint Etienne, France (more detail overleaf).

The case studies will shortly become involved in evaluating the technical and engagement toolkits that they have helped to produce.

For up to date information on our case studies please visit the [LEAF website](#).

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## Recent events



April 2015

### Partner Meeting, Lyon

Discussion of case study evaluation and toolkit dissemination



March 2015

### Energy efficient methods of building and retrofit conference, Budapest

LEAF engagement toolkit introduced and explained by Energiaklub



February 2015

### FASUDIR Meeting, Munich

Developing a strategy for retrofit on a district scale. LEAF was presented by Fraunhofer IBP, highlighting potential barriers to this process



# Case study spotlight:

## Les Mouliniers, Saint-Etienne France

This residential block was built in the 1950s, and is comprised of four apartments, all of which are privately owned. The owners decided to carry out a significant energy efficiency retrofit and asked their energy local agency, ALEC42, for advice.

The building is of concrete construction and currently has no insulation. Heating and hot water is supplied by individual gas boilers, which vary in age. There is double glazing but this is very old and has deteriorated considerably. The energy consumption is currently very high: around 380 kWh/m<sup>2</sup> per year, energy rating F in France. The owners decided to use the LEAF methodology to help them to develop their retrofit plan.



To begin with thermal imaging and an energy audit were completed to determine which measures were most appropriate. It was decided that this would include external wall, loft and floor insulation, mechanical ventilation with heat recovery, replacement double glazing and upgrading two of the older boilers with condensing versions. It is hoped that once fitted these measures will reduce the annual consumption to around 100kwh/m<sup>2</sup> (energy rating C). If this reduction is achieved, residents should see considerable savings on their energy bills.

The building is managed by an enthusiastic association of property owners, who have regular meetings which has enabled decisions to be made quickly. The project has also benefited from access to financial subsidies from the regional authorities and the government. Work is due to commence at the end of 2015.

## Upcoming events

LEAF will be presented at:

**2015**

- Apartment retrofit conference – FLAME



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