

## Policy Recommendations

The project has come to interesting, if not surprising, conclusions. The social, cooperative and public housing sector is a key partner within the EU's priority of working towards a low-carbon economy. However, it is important to remember that progress towards energy efficiency is moving at different speeds and subject to very different political, fiscal, sociological and geographic conditions across countries.

**Success is linked to the capacity of regions, cities and countries to put in place the right mix of ingredients:** (I) adequate involvement of residents in the programme design and implementation. (II) Easy and cheap access to funding (III) efficient and integrated technological solutions.

1. Housing renovation to reduce energy consumption and bills is an integrated part of effective neighbourhood, city or region-wide energy transition planning. This must be seen in the context of job creation, therefore reducing the social and economic costs related to unemployment, the burden of which is felt by the whole neighbourhood, city, region and country.

This also links directly into reducing fuel poverty and its health impacts, the cost of which is transferred to health services, empowering citizens financially by increasing purchasing power and through the increased comfort which is often one of the most important demand-side considerations. This is also very closely linked to the cost of energy saving measures. Energy efficient refurbishment should not result in increasing rents to levels that residents can no longer afford, forcing them to leave their homes.

There are also limitations to the effect of smart devices on consumption reduction which must be evaluated and taken into account. The housing organisations are doing a lot to make energy use effective but it is also based on the behaviour of the people living in the buildings. In order to make energy consumption lower and make the future energy market possible, we need to include the tenants, we need neutral information and training.

European Structural and Investment Funds (European Regional Development Fund and the European Social Fund), ERASMUS + and Horizon 2020 programmes should be used to support local energy communities and a potential wide range of activities (financing and installation of local energy production capacities linked to social housing

providers, training of residents and unemployed tenants to help them contribute to the low-carbon economy.

2. While there is huge potential for energy efficiency gains in buildings, the measures needed are not always cost effective for housing providers – even over the long term. We need to ensure that the renovation of housing will be among the projects eligible to apply for various types of EU funding. Such projects require long term and low-cost capital financing, thus public support in one form or another.

A clear obstacle is the long payback time on investment, reducing the interest of private investors or energy service contractors and resulting in a tendency to implement only superficial measures offering short-term returns. What we need is a subsidy covering the gap between energy efficiency measures that are profitable for the housing company in the long run and the climate goals, a guarantee that energy savings not covered by up-front costs and energy production made over the lifetime of the project are covered by subsidies.

Key to success will be the guarantee for affordability for residents.

3. Widespread mature technologies and simple systems are generally preferred, since complex systems require more maintenance and have higher running costs. It is important to monitor the performance of RES used to avoid malfunctioning and explain to owners and tenants how to operate and make the most out of the devices installed. Besides, new technologies such as Off-site manufacturing are needed to build new homes, while retrofit has focused more on incremental improvements to existing properties.

The Dutch EnergieSprong (literally, energy jump) system changes this by delivering retrofit in one off-site manufactured package. It recognises that, from a property management perspective, you want to refurbish a building only once every three decades rather than in small steps over many years. As the retrofit principally adds a new building envelope to the existing structure it can take place in a week and without residents needing to leave their home.

The discussion on the Energy Union (in particular the review of the EPBD and EED) must take those elements into accounts and the EU must promote those promising approaches if it wants to succeed in achieving a fair energy transition.