

Passivhaus homes deserve a helping hand

If the electric car has drawn a wide range of incentives to speed its adoption, the high-efficiency home, with a larger and far more lasting benefit, still awaits the same institutional recognition.

This article was written in early November 2016 with a specific hope: that its content would soon become obsolete. The argument starts from a comparison that remains useful for understanding how public administrations can accelerate a positive transformation when they choose to support it.

The electric car as an example

Anyone considering an electric car finds a favourable context today. It drives silently, cuts pollution almost to zero and leaves home with the tank always full. Alongside these advantages come purchase discounts and a set of incentives that depend on the municipality of registration: reductions on tolls, on car parks and metered zones, cuts to the circulation tax and priority spaces. In the not-too-distant future, even preferential circulation over vehicles that could face restricted access in certain cities.

That a vehicle which helps reduce pollution should receive support of every kind is consistent: it is a sustainable change, and the public sector has a facilitating role here. In recent years the electric car has begun to take off, and it is no longer surprising to pass one or to learn that someone close has left behind the false myths of this technology.

The contrast, however, is hard to understand. In Spain the purchase and use of electric cars are made easier, while passive houses receive no equivalent support, even though their benefit is greater and far more durable.

The benefits of the passive house

Passivhaus homes, highly energy-efficient, biopassive and ecological, sharply reduce the energy needed to maintain indoor comfort. This translates into notable financial savings and, at the same time, into lower pollution linked to producing that energy. The bioclimatic passive houses [we build at PAPIK Group](#) save close to 70% of energy. Such is the case of Passivpalau, in Palau-solità i Plegamans (Barcelona), where its owners have confirmed the savings after moving there from a home in the same development. These are houses with no energy mortgage: they allow saving and, ultimately, generate wealth.

The environmental benefit does not stop there. Biopassive houses, built with sustainable materials, not only respect the environment but can absorb more CO₂ than they generate. When we build a Passivhaus home we turn to materials such as timber.

To obtain the beams and panels of the structure, the forestry sector has needed years of planting trees that, as they grow, absorb large amounts of CO₂. The result is that raising a house captures more CO₂ than it emits. Moreover, processing the timber generates no waste: every offcut has a use, and even the shavings can become biomass. Building a home and cleaning CO₂ from the air without producing waste is what is often described as a situation in which everyone wins.

In short, building a biopassive Passivhaus home saves a considerable amount of energy, saves money, purifies the climate, generates no waste and guarantees indoor comfort all year round. And those benefits last for many years, because a house accompanies a whole lifetime and often that of several generations.

An example to follow

It is worth returning to the starting point. The electric car has marked a paradigm shift in mobility and transport. To encourage it, public and private institutions have made it more attractive through support measures, a sound strategy: any transformation, however beneficial, carries an initial cost that can act as a brake. That is why advantages were offered to the pioneers until the sector took hold: direct purchase incentives, help installing charging points, discounts of up to 100% on tolls, priority parking zones, reductions in metered areas and cuts to the circulation tax. This is how a paradigm shift is achieved.

Passive houses have a far longer useful life than a car. The benefits of building to the Passivhaus standard last for decades, and the cost of not doing so is also carried for decades.

Moving to action

It is hard to understand why no incentives exist for building passive houses: reductions in property tax, cuts to fees and building permits, or public facilities built to this standard. Through the Plataforma de Edificación Passivhaus, of which PAPIK Group is a member, work is under way to change this scenario. There are several routes to boost the visibility and spread of this kind of construction.

Municipalities are the ones able to offer reductions in taxes such as property tax or in building permits. The call is for them to join in and become a **#SustainableMunicipality**, reducing the property tax and fees of bioclimatic passive houses with Passivhaus certification. Proposing these incentives to one's own town council, officially or publicly, is a step within any citizen's reach. A **#SustainableMunicipality** lowers building-permit fees for sustainable homes and promotes social housing built to high-efficiency criteria.

Around the world there are examples of incentives for efficient construction. In Spain, so far, there is the commitment of the Basque Country, which builds social housing to these criteria, and that of Villamediana de Iregua, which in 2013 ruled that all new municipal buildings must meet the passive-house standard, with a commitment that 10% of private development would do so too. On the financial side, Triodos Bank offers variable mortgages according to the efficiency of the construction: the greater the efficiency, the lower the interest.

The public sector can foster quality construction that does not mortgage the future with high energy consumption. The aim is to establish a new building paradigm based on sustainable buildings with no energy mortgage, a principle that also guides our [energy retrofit](#) projects.

Backing efficient construction with incentives is not a privilege for the few, but the fastest way to establish a housing stock that saves energy for decades.