# CasaClima







CasaClima WHO WE ARE

Living in one's own house is a goal that many people pursue. Whoever takes it on, however, faces many challenges: the design, the planning of the work, the choice of materials, the monitoring and controlling of the implementation; all stages that require competence and professionalism.

The aim of the **CasaClima project** is to help its customers to realize a comfortable and sustainable home, with low energy consumption and respect for the surrounding environment. More than a third of energy consumption and  $CO_2$  emissions in Europe are due to construction related sectors. Building with CasaClima today means showing responsibility and respect for the environment in a long-term perspective.

The promoter and coordinator of the project is the CasaClima Agency, a public and independent body that with professionalism, practicality and neutrality, takes on the task of checking the quality of the entire construction process from the planning, to on-site audits, to the issuing of the CasaClima certificate and the CasaClima plaque.



CasaClima

CasaClima®



**The CasaClima energy and environmental certification** is a quality seal designed for new buildings and energy refurbishment projects.

A CasaClima building requires less energy through a high performing building envelope and an optimized use of modern and energy efficient systems (heating, cooling, ventilation, lighting etc.) and is often coupled with the usage of renewable energy sources.

First and foremost the CasaClima quality seals stand for improved comfort, healthy indoor conditions and environmentally sustainable buildings.

**CasaClima is an energy and environmental standard and a guarantee of a quality build.** A CasaClima building can be realized using the most varied of construction systems, technologies and materials and a maximum freedom of design.



## CERTIFICATE AND PLAQUE

The CasaClima certificate is issued by the CasaClima Agency or by its partner agencies, which are public bodies not involved in the construction process. It shows, in a clear and transparent way, the energetic and ecological performances of the building.

# THE CASACLIMA CERTIFICATE, BESIDES INDICATING THE ENERGY CLASS, ALSO DEALS WITH:

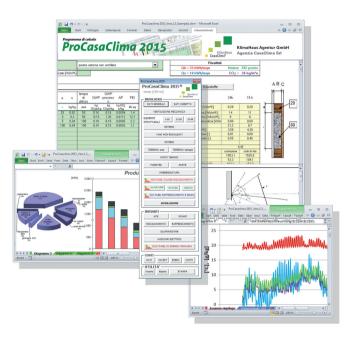
- The efficiency of the building envelop, which expresses the energetic quality of the building envelop.
- The global energy efficiency, which expresses the overall evaluation of the quality of the building skin and of the choices of the technical building services, which is expressed in primary energy demand and CO<sub>2</sub> emissions.
- Environmental sustainability, expresses compliance with the criteria of the CasaClima Nature protocol.

Upon the release of the certificate, one also receives a **CasaClima plaque**, generally placed near the entrance, which testifies the overall design and execution quality of the building.





#### ProCasaClima



ProCasaClima is an Excel<sup>®</sup> based calculation tool, downloadable for free from the CasaClima Agency website, for the evaluation of the energy requirements of heating and sanitary hot water, but also for cooling, dehumidification, lighting and auxiliary energy. The calculation of the environmental assessment for the sustainability certification (Nature) is also integrated into the calculation.

The section of the technical building services enables the evaluation of the primary energy demand,  $CO_2$  emissions and the percentage of renewable energy used. It allows to perform dynamic simulations that are essential for an effective evaluation of indoor comfort during the heating and cooling season.

**ProCasaClima** is a particularly flexible instrument, which can be used for the certification, for the design, as well as for the evaluation of the different system choices also from the point of view of cost-benefit optimization. It also allows to perform a simplified calculation for a quick evaluation overlook.











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CasaClima NATURE

**CasaClima Nature** is the sustainability protocol that evaluates and certifies a building considering both aspects related to energy consumption and the impact on the environment, but also the influence of the construction on the health and well-being of people who live or work in it.

**CasaClima Nature** objectively evaluates the environmental footprint of materials and systems used in the construction as well as the water footprint.



To ensure the comfort and health of users, detailed requirements are given for air quality, natural lighting, acoustic comfort and protection against radon gas. Each evaluation criterion requires that all quality standards must be achieved in order to obtain the CasaClima Nature certification.



KlimaHaus CasaClima®

REFURBISHMENT



The experience of the CasaClima Agency has shown that **each existing building is unique** and requires a specific approach.

For this reason, a certification protocol was developed, which is both simple and flexible, yet rigorous in finding the most appropriate solutions for each refurbishment project. **CasaClima R** promotes quality in energy upgrades of residential buildings, non-residential buildings and of individual apartments, with specific measures for the recovery of historic buildings subject to protection.

The purpose is to obtain energy efficiency along with a comfortable and healthy indoor environment while complying with the architectural quality aspects and while taking into account the optimal ratio between costs and benefits.



#### **SUSTAINABILITY**

Based on the CasaClima Nature protocol the Agency has developed a series of seals of approval, taking into account the specificities and needs of different areas of application: ClimaHotel for sustainable tourist facilities, CasaClima Welcome for small accommodations, CasaClima Work&Life for tertiary buildings, CasaClima Wine for wineries and CasaClima School for school buildings and kindergardens.

In order to make sure that sustainability does not remain a mere intention but turns into concrete and effective action, clear requirements have been introduced, which are transparent and easily verifiable. The identified criteria are divided into three areas of evaluation that consider the impacts of energy-environmental aspects, of indoor comfort and environmental quality and economical and managerial aspects.

The structure of the various protocols is similar and provides a complete and continuous verification from the project phase, to the realization and finally of the management phase. The CasaClima sustainability protocols, first developed solely for the evaluation of new structures, were later implemented for the certification of restoration and / or expansion projects.





### CasaClima TRAINING



In order to spread awareness of its certification protocols, as well as building physics, energy effi-

ciency, construction techniques, materials, technical building services and renewable energies, the **CasaClima Agency provides training** for all those involved in the construction process. In addition, CasaClima promotes initiatives to raise awareness and empower the citizenry on issues such as energy conservation, sustainability and climate change.

In order to disclose these issues, the CasaClima Agency has, together with its network partners, continuously worked on expanding its course offer.

The CasaClilma Agency organizes a multitude of training courses, events, workshops and conferences on these topics. Furthermore, in collaboration with the Free University of Bolzano and the LUMSA University of Rome, the CasaClima Agency offers two Master programmes.