



A home for living innovation

Creating the home for living innovation

The Smart Energy Home (SEH) initiative brings together a strong consortium of leading companies to address the need for more energy efficient, smarter and healthier homes.

Existing homes contribute to climate change through the great amounts of energy and resources used to achieve comfort. Modern, innovative solutions and technologies can eliminate this waste of energy and water while improving the comfort level. Despite these solutions being readily available, we still reside in traditionally built homes, continuing to waste valuable resources.

Greater awareness and stricter European legislation are pushing for better buildings. Yet, the market moves slowly. There is a fear that new construction concepts will increase costs, while consumers are reluctant to houses they perceive as 'complicated'.

The SEH consortium is determined to change these perceptions and promote the cost-effective realisation of modern, residential buildings that not only meet stringent energy requirements, but are healthy, maintain excellent comfort, and support the inhabitants in their daily lives.

Did you know that...

...buildings consume 40% of the energy used in Europe and contribute to 40% of the greenhouse gas emissions

...in buildings, a great part of the energy consumed is wasted through inefficiency - the loss is estimated to €60 billion per year in the EU

...building related illnesses cost up to €100 million per year in the EU



Living better in a Smart Energy Home

People living in a Smart Energy Home (SEH) experience a higher quality of life and consume substantially less energy and resources than they would in a traditional house.

Designed with the inhabitant in mind, a Smart Energy Home ensures a healthy, comfortable living environment, which is easy to maintain, and gives full control of how much energy and water that is consumed.

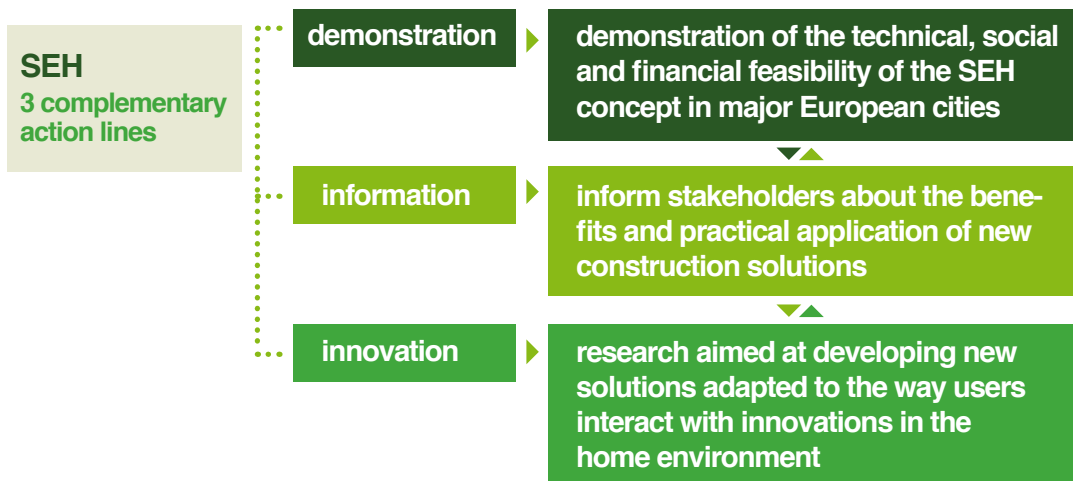
The integration of innovative, yet proven, technologies drastically reduces the net energy and water consumption. A sustainable approach brings down the utility bills and the dependency on future energy costs, while limiting the building's environmental impact.

No need to wait for the future

Fact is that this type of homes can be realised in a financially feasible manner already today. Yet the development towards mass-scale uptake of homes that address both inhabitant satisfaction and the efficient use of resources is still sluggish.

Going further than mere definition, the Smart Energy Home initiative takes concrete action to bring about a change.

SEH is built around 3 complementary action lines:





The DEMObuildings

In order to show the technical, social and financial feasibility of the SEH concept, the SEH initiative sets up a network of DEMObuildings: attractive, multi-dwelling buildings, adapted to local conditions, with energy performance ranking among the top of the national building stock. Furthermore, smart financing solutions will allow for a high quality of life without increasing the final living costs.

Seeking collaboration in major cities

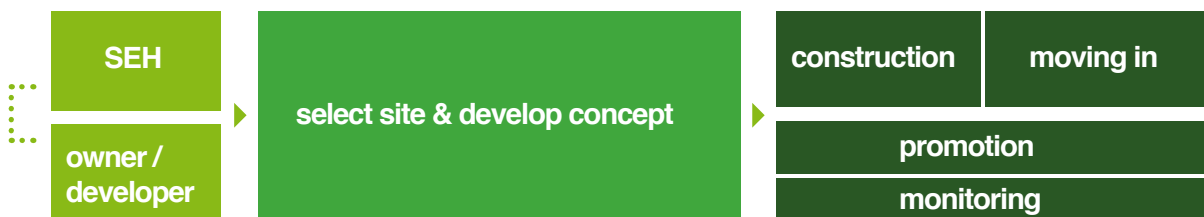
For these DEMObuildings, the SEH initiative is seeking to open dialogue with real estate actors in major European cities. We are looking for property developers who are engaged in residential buildings, show involvement in energy/sustainability issues and seek to promote this interest on a European level, and are open to innovative collaboration with reliable industrial actors.

Benefits of realising a DEMObuilding

Joining forces with the SEH consortium provides a unique opportunity to receive expert support to develop attractive and sustainable residential buildings:

- Specialized support to apply and integrate cutting-edge, yet proven, technologies, based on the knowledge and experience of SEH member companies.
- The knowledge, tools and skills needed to enable the involved actors to replicate the concept in future developments.
- Economic assessment and support in identifying financing solutions, taking into account a range of energy price scenarios.
- Extensive promotion towards inhabitants, industry, society and policy-makers.
- The commitment of large industrial companies, ensuring reliability, effectiveness and on-time actions.
- Advantage of participating in the SEH network when pursuing local, national and European co-funding opportunities.

The DEMObuilding process



A holistic view on the home

The SEH initiative considers that a holistic perspective on residential buildings is important in order to steer the housing market towards sustainable solutions. A modern house must provide for low consumption of resources and be attractive to live in. People search for a healthy, comfortable home that is adapted to their needs. Integration is therefore a key issue.



Energy & Resources

Through innovative solutions and smart technology, the demand for energy and water will be radically reduced. Renewable energy sources will ideally cover the remaining energy demand. As for water, part of the demand can be covered through recovery and collection techniques.

Health & Comfort

The key for SEH is to design the home around the end-users and their needs. High indoor air quality and easy maintenance are essential. Depending

on the target group, SEH can also allow for applications for telemedicine or enhanced accessibility.

Smartness

A smart home is more resource-efficient, comfortable and healthier. Through intelligent solutions, mainly based on information and communication technologies, the inhabitant gains control over energy and water consumption, building management, security etc. The solutions in SEH are user friendly and support the inhabitants in their lives.



Together we can bring green development off the ground.

The Smart Energy Home consortium is teaming up with real estate developers in major European cities to construct or renovate multi-dwelling buildings according to the SEH principles: providing a sustainable living experience without any radical increase in costs.

Real estate developers are sought who:

- are engaged in residential buildings;
- show involvement in energy/sustainability issues and seek to promote this interest on a European level;
- are open to innovative collaboration with reliable industrial actors.

In addition to real estate actors, the initiative is also open for dialogue with additional industrial and public stakeholders who could contribute to the Smart Energy Home objectives.

The Smart Energy Home consortium consists of five multinational companies, each a leader in its field, offering complementary solutions to support a new generation of buildings. In specific projects, collaboration will also be sought with manufacturers of the best technologies necessary to create a complete Smart Energy Home.

 **BASF**
The Chemical Company

 **EVONIK**
INDUSTRIES

 **acciona**

 **Roca**

 **PHILIPS**

 **Smart Energy Home**

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