What?

The EU-funded project DRIVE contributes to speeding up the deep and circular renovation process, for a better and more sustainable future. We are doing this to make the approach to circular renovations better by making it more environmentally friendly, cost effective and attractive for consumers and investors.

What is our definition of a circular renovation?

A circular deep renovation, which contributes to a circular built environment, is based on 100% life cycle renewable energy, and all materials used within the system boundaries are part of infinite technical or biological cycles with lowest quality loss as possible.

Want to get in touch? Or are you interested to join our ***Stakeholders Advisory board****?*
Email us at ***info@drive0.eu***

More information at www.drive-0.eu

Who we are

Huygen Installatie Adviseurs
www.huygen.net/

Zuyd Hogeschool
www.zuyd.nl/

Pich Architects
www.picharchitects.com

WEBO
www.webo.nl/

National and Kapodistrian University of Athens
en.uoa.gr

Salfo & Associates SA
www.salfo.gr

Valencia Institute of Building
www.five.es/

Knauf Insulation
www.knaufinsulation.si/

Factory 0
www.factoryzero.nl/

University of Bologna
www.unibo.it

ISSO
www.isso.nl

Technological University of Dublin
www.tudublin.ie

Timbeco
www.timbeco.ee

Coady Architects
www.coady.ie

Aliva
www.aliva.it

Tallinn University of Technology
www.ttu.ee

Housing Europe
www.housingeurope.eu

Institute for Innovation and Development of University of Ljubljana
www.iri.uni-lj.si/

Architects' Council of Europe
www.ace-cae.eu

International Union of Property Owners
www.uipi.com

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DRIVE

For a better, sustainable future, we need to change the way of construction and renovation.

We need to improve the renovation processes to become more circular and sustainable!

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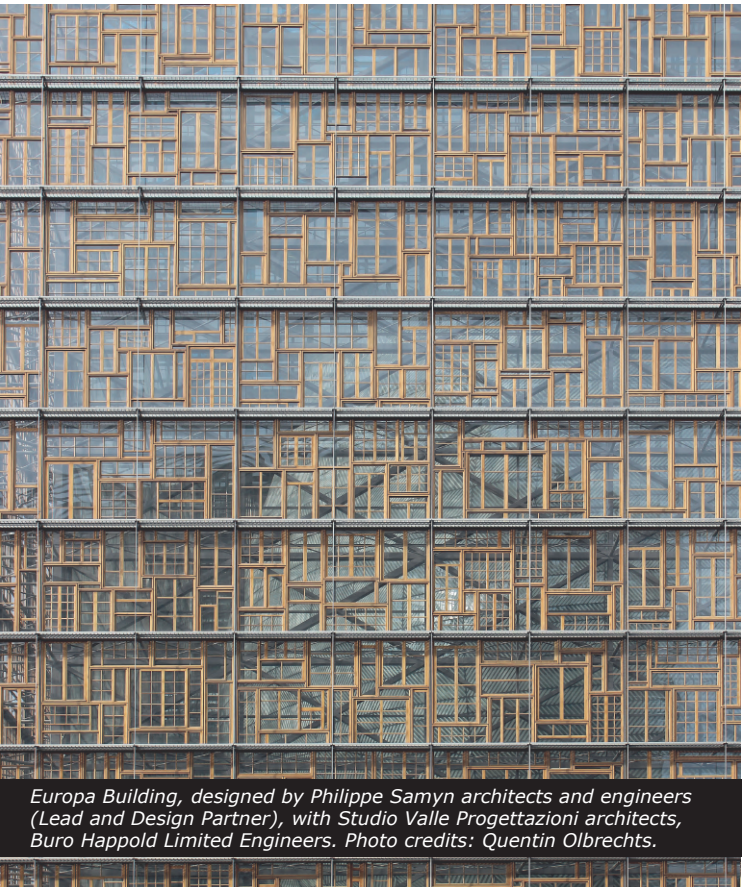
Why?

The built environment is responsible for 40% of final energy consumption in the EU. The embodied energy in buildings counts for up to 60% of the building's life cycle energy, with collateral embodied CO2. This needs to change.

Improving the circular renovation process will improve the way we build. Within the EU more than 50% of all extracted materials are attributed to buildings. The exploitation of natural resources and its collateral environmental impact is a serious threat to the natural, social and economic systems in the EU.

Renewable energy technologies as well as reuse and recycling of resources/materials are needed to overcome this challenge. Therefore, a transition to both a deep and circular renovation process for the total European building stock is necessary.

That's where DRIVE comes in.



Europa Building, designed by Philippe Samyn architects and engineers (Lead and Design Partner), with Studio Valle Progettazioni architects, Buro Happold Limited Engineers. Photo credits: Quentin Olbrechts.

How?

We want to improve the circular renovation process in 4 main elements and steps:

1. **Benchmarking**
   We will start by making an inventory of recent product and technology developments. With that, we will make an assessment on the usability and potential for a further development to circular products, reusing materials from renovation sites.

2. **Concept development**
   The next step is to come to a concept development for the demonstration buildings. To support this process a morphological design approach for circular renovation will be developed. This will also be supporting the further development of a total circular renovation process.

3. **Attractive & understandable information**
   In order to improve the circular renovation process to be both more attractive and more reliable to owner and occupants. An important objective in DRIVE is to provide home-owners with attractive and understandable information of the total performances of their renovated homes. This includes the monitoring of energy, comfort and IEQ and translating the data into understandable information including guidance and tips.

4. **Demonstration & evidence**
   These steps will be demonstrated and validated in a number of demonstration cases in different European countries: Greece, Slovenia, Italy, Spain, the Netherlands, Estonia and Ireland. Each case represents an approach to achieve a circular way of renovation, as well as a specific local challenge. A case-specific monitoring action plan will be devised, which will be the basis for the testing of the circular renovation concepts.

DRIVE 0 is following three strategies to develop, implement and scale-up circular renovation of the existing housing stock:

① Re-using and recycling locally available materials by urban mining;
② Using bio-based engineered materials (wood, hemp, flax);
③ Combining the two previous actions for circular renovation.