Space cooling demand

Cool LIFE

EU CONTEXT

Global temperatures are rising and summers are becoming less habitable across the EU, driving a **surge in demand** for thermal comfort solutions. In fact, space cooling has become the **fastest-growing** use of energy in buildings globally. However, the majority of space cooling systems in place today are r**esource-intensive** and powered by **non-renewables**, with energy efficiency ratings averaging at **less than a third** of what they could be.

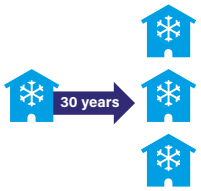
The EU's **Fit for 55** package, as part of the **2030 Climate Plan**, aims to cut emissions to at least 55% below 1990 levels in the coming years – a tall ask for the space cooling sector, where energy consumption has more than **tripled since 1990.** To reach this goal, the widespread uptake of **energy-efficient and cost-effective** solutions is crucial.

An ideal net-zero space cooling scenario would involve a strong push for the implementation of **passive and nature-based** solutions, with the aim of **reducing the demand** for active systems and thereby reducing the need for energy expenditure in space cooling.

FACTS

The average efficiency of space cooling systems is less than a third of best available technologies

Only 23% of space heating and cooling consumption is provided through renewable sources



Energy demand for space cooling is projected to triple by 2050 without action being taken

To align with net zero goals, the efficiency of space cooling systems needs to increase by 50% in the next 8 years

RESOURCES

- European Commission: Heating and Cooling
- IEA space cooling report
- Fit for 55 package
- Green Deal's 2030 Climate Target Plan
- Renewable Energy Directive

Project Overview

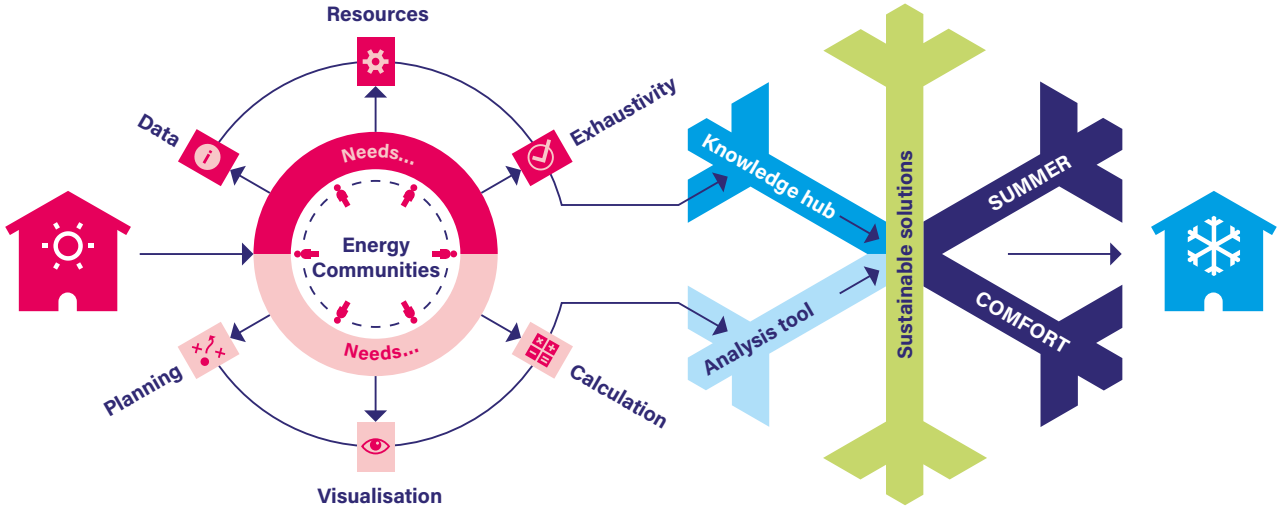
Cool LIFE

ABOUT

The **CoolLIFE project** aims to address the need for **sustainable solutions** to the EU's rising demand for space cooling in buildings. The project will develop **open-source tools** which encourage the consideration of **green space cooling solutions** in public and private decision-making, planning, design, and implementation processes.

The three-year project, beginning in November 2022, is funded by the **LIFE Programme** of the European Union under the **Clean Energy Transition** initiative under grant no. 101075405 — LIFE21-CET-COOLING-CoolLIFE.

coollife.revolve.media



PARTNERS

ABUD Advanced Building & Urban Design

ARMINES

eurac research

ethink Energy Research

IEECP Institute for European Energy and Climate Policy

MINES PARIS | PSL

REVOLVE

TU WIEN Technische Universität Wien

KEYWORDS

- Space cooling
- Open data
- Renewable energy
- Building energy efficiency
- Renovation wave
- Nearly zero-energy buildings
- Climate resilience
- Building stock

BUDGET

Budget: € 1.997.034,23

LIFE21-CET-COOLING-CoolLIFE on LIFE Public Database

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