HOW SMART CAN A BUILDING BE?

The Smart Readiness Indicator (SRI)

In the EU, every Member State can decide to introduce a label showing how smart buildings are.

Why use smart technologies?

Smart technologies in buildings make it possible to live and work in healthier and more comfortable buildings with lower energy use and carbon emissions.

All buildings can benefit from basic smartness upgrades like **room thermostats**.

Buildings with photovoltaic panels and electric cars can benefit from **advanced energy management systems**.

Smartness is one of the few options to save energy in **historic buildings**.

Smarter buildings can **save up to 30% of the energy** they consume.

In Europe, office buildings represent

25% of the non-residential floor space

26% of the energy consumed in tertiary sector

Improving the smartness of office buildings not only allows to achieve energy savings, but also contributes to improve well-being in workplaces.

Source: Lapillonne B, Sebi C, Pollier K, Mairet N. Energy Efficiency Trends in Buildings in the EU - Lessons from the ODYSSEE MURE project. ADEME

How can smartness in offices improve the physical and emotional health of its users?

VENTILATION

BASIC TECHNOLOGY	SMART TECHNOLOGY
Clock control.	Variable air flow control based on air quality sensors (CO_2).
Functionality Level: Non-smart – Max smartness	Functionality Level: Non-smart – Max smartness

DYNAMIC ENVELOPE

BASIC TECHNOLOGY	SMART TECHNOLOGY
Manual control.	Shading control on room sensor data (illuminance levels).
Functionality Level: Non-smart – Max smartness	Functionality Level: Non-smart – Max smartness

HEATING

* BACS: Building & Automation Control System

BASIC TECHNOLOGY	SMART TECHNOLOGY
Normal thermostat in each room.	Individual room control with BACS* communication and occupancy detection.
Functionality Level: Non-smart – Max smartness	Functionality Level: Non-smart – Max smartness

Positive impacts beyond energy savings

Better Indoor Environmental Quality (IEQ) tends to	**Improved control level on shading system**
Increase the occupant satisfaction	Reduces heating and/or cooling needs
Increase employee's health and productivity, reducing sick leaves, absenteeism and turnover	Improves thermal and visual comfort of employees
Reduce direct medical costs for sick leaves or indirect costs related to poor employee performance	Allows more visual contact with nature because the blinds are down only when needed, with proven positive effects on concentration, stress, and cognitive performance

There is still a long way to go

The **SmartBuilt4EU project** aims to raise awareness amongst building owners and occupants of the value behind building automation and electronic monitoring of technical building systems.

The smart buildings community supports EU policies and funding programmes to encourage the further uptake of smart buildings.

SmartBuilt4EU – The European Smart Buildings Community

Are you a **building owner**, a **manufacturer** or a **sustainability professional**?

Are you working on an **innovation project** that needs a boost in visibility?

Do you want to contribute **defining the future EC-funding calls** on smart buildings?

Support the deployment of smart buildings and join the community!
smartbuilt4eu.eu/join-our-community

Credits: Eurac Research / Illustration designed using the resources of Freepik.com
This work has been developed in collaboration with the H2020 project SmartBuilt4EU