



## Building 4 People: People-Centric Buildings for European Citizens

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# Executive Summary

Buildings we live and work in are affecting our environment, our physical & mental health, our wellbeing and even our productivity. People spend on average 90% of time indoors and one in six Europeans live in unhealthy buildings. Plus, studies show that in more than 40% of enclosed spaces, people suffer health and comfort complaints.<sup>1</sup> Buildings also have a key role to play in combatting the impacts of climate change. In Europe, buildings are responsible for 40% of energy consumption and nearly 36% of CO<sub>2</sub> emissions. In order to meet the COP21 Paris Agreement goals and European Union's 2030 climate and energy targets, it is essential to focus on existing buildings, the vast majority of which are inefficient and will require renovation between now and 2050.

The broad alignment of environmental and health agendas presents an opportunity to not only invest in better performing buildings, but also to improve the quality of life for people using these buildings. Enhancing

the health and comfort of people in buildings has a huge potential for economic and societal benefits such as better health, increased productivity, reduced sick leave and a decrease in associated medical costs.<sup>2</sup> We call this approach "Building 4 People."

There is a wealth of evidence demonstrating the links between healthy indoor environment and productivity. Digitalization and automation is making building performance data (e.g. air quality, temperature, noise, energy consumption) more available; in parallel, consumer awareness and expectations for comfortable and healthy places are growing.

This paper describes a "state of the art" for the debate about healthy, comfortable and productive buildings by looking at both policy and market dimensions. The European Union has demonstrated leadership in fighting climate change, promoting the energy transition and creating new opportunities for European

<sup>1</sup> Philomena Bluysen. 2009. The Indoor Environment Handbook: How to Make Buildings Healthy and Comfortable.

<sup>2</sup> The Healthy Indoor Environment: How to Assess occupants' wellbeing in buildings. Philomena Bluysen. Routledge: London 2014.

citizens through the circular economy. However, health, wellbeing and productivity of building users remain subsidiary topics in the EU policy discourse, and there is no clear champion within the Commission where these issues are prioritized.

On the market side, real estate owners, managers, and investors are reporting an increasing demand for healthy, comfortable and productive spaces. Employers are looking closely at real estate through a lens of employee productivity. At the same time, the energy efficiency community is recognizing that the transition to high performing buildings will not be driven by energy savings alone; instead it must be approached through a people-centric perspective. Increasingly, companies are making commitments to promoting healthy, comfortable buildings that improve people's wellbeing and productivity.

Having surveyed the existing efforts, out of many building attributes affecting people's health and wellbeing, we are focusing on four parameters:



### Temperature

reflecting the basic human need for protection from extremes of temperature



### Light

pointing to the need for adequate workspace lighting and the effect of light on wellbeing



### Air

demonstrating the needs for clean, healthy air, free from harmful pollutants – many of which cannot be directly sensed, but can nevertheless cause serious health effects



### Noise

showing that noise can be extremely disruptive, damage our hearing or cause distress, anxiety, hindered communication and reduced concentration

Buildings are highly fragmented by type, ownership and use; this paper will focus on non-residential buildings.

In order to stay at the forefront of the transition to people-centric buildings, companies should:

- **Invest in and promote people-centric and healthy buildings**
- **Publicly commit to lead the industry**
- **Establish a voluntary commitment framework**
- **Calculate the financial impact of healthier, happier and more productive people**
- **Invest and support people-centric building professionals.**

To foster broad adoption of human-centric high performing buildings, policy makers need to:

- **Increase support for research and innovation on how buildings impact human health and wellbeing**
- **Improve national renovation strategies to include considerations for health**
- **Provide guidance for optimization and building automation.**
- **Ensure optimization of the energy use of technical building systems and building automation**
- **Reform the cost-optimal methodology**
- **Incorporate financial considerations for healthy buildings in policy documents**
- **Provide guidance for people-centric public procurement.**

Buildings 2030, in collaboration with strategic partners, is promoting Building 4 People approach to accelerate the transition to people-centric buildings.

## CONTACT US



**Rodolphe Nicolle**  
Executive Director

[Rodolphe.Nicolle@buildings2030.com](mailto:Rodolphe.Nicolle@buildings2030.com)



**Kristina Klimovich**  
Senior Manager

[Kristina.Klimovich@buildings2030.com](mailto:Kristina.Klimovich@buildings2030.com)