

Global Study Asks: How Do Green Buildings Impact Thinking, Health, Sleep?

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A Harvard study is recruiting buildings around the world to discover the impact of green buildings on health and productivity.

WHAT IS THE TRUE VALUE OF A GREEN BUILDING?

New research from the Harvard T.H. Chan School of Public Health, called **THE COGFX STUDIES**, is changing the green building discussion by unveiling its impact on human performance. **STUDY 1: INDOOR ENVIRONMENTAL QUALITY** set the methodology. **STUDY 2: BUILDINGOMICS** took the research out of the lab, connecting green buildings with occupants' health and productivity. Now, **STUDY 3: GLOBAL BUILDINGS** scales the research globally.

STUDY 1: INDOOR ENVIRONMENTAL QUALITY
STUDY 2: BUILDINGOMICS
STUDY 3: GLOBAL BUILDINGS

THE LAB • THE U.S. • THE WORLD

THE IMPACT OF GREEN BUILDINGS ON COGNITIVE FUNCTION
STUDY 3: GLOBAL BUILDINGS

3-YEAR GLOBAL STUDY

2017 GOAL 10 BUILDINGS
2018 GOAL 50 BUILDINGS
2019 CUMULATIVE GOAL 100 BUILDINGS

Findings become available **BEGINNING IN 2018**

REAL-TIME DATA

Data will be collected over several months using **MOBILE TECHNOLOGIES** to study the impact of green building on cognitive function

PARTICIPANTS
Office workers in participating buildings volunteer to take part

CONNECTED DEVICES
User-friendly smart technologies

RESEARCHERS
Harvard researchers receive anonymous, real-time data through the ForHealth app

A GLOBAL CALL FOR ENTRY: THECOGFXSTUDY.COM

#THECOGFXSTUDY

Primary support for this study comes from research sponsor JPMorgan Chase and Co. © 2017 United Technologies

Researchers at Harvard T.H. Chan School of Public Health and SUNY Upstate Medical University are recruiting 100 office buildings from around the world to be part of a new, first-of-its-kind study to examine the effects of global indoor environments on employee productivity and health. Click image to enlarge. (PRNewsfoto/United Technologies and UTC Cli)

How do green buildings impact thinking, sleep quality, and health? Researchers at Harvard T.H. Chan School of Public Health and SUNY Upstate Medical University are recruiting 100 office buildings from around the world to be part of a new, first-of-its-kind study to examine the effects of global indoor environments on employee productivity and health.

green buildings

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For the next three years, the research team will assess employee cognitive function performance — a key indicator of productivity — using a proven, standardized app-based process. Participants will get the “ForHealth” kit from the Healthy Buildings team at Harvard that includes an environmental sensor for their desk and a wrist monitor to easily capture feedback on sleep and physical activity. The sensors connect seamlessly to a custom-built “ForHealth” app that integrates data from the sensors and is used to administer the tests.

“Much of what we know about things like exercise and nutrition comes from the great human epidemiological cohort studies, like the famous Nurses’ Health Study. We haven’t had a similar study done for buildings — until now. This is a powerful study design that will allow us to quickly expand our knowledge of how buildings influence health across all 9 Foundations of a Healthy Building,” said Dr. Joseph Allen, Assistant Professor of Exposure Assessment Science at the Harvard T.H. Chan School of Public Health, Director of the Healthy Buildings Program at the Center for Health and the Global Environment at Harvard Chan School, and Principal Investigator for the study.

The launch of the new study builds on the acclaimed COGfx studies, which revolutionized the concept of green building by unveiling its impact on human performance. The COGfx research shows significantly improved cognitive function scores among employees in green building environments, and this new, global study aims to better understand specific building-level factors that deliver improved thinking, productivity and health in building occupants around the world.

The first COGfx study set the methodology and found a doubling of cognitive test scores when participants worked in a setting optimized for indoor environmental quality, like those found in green buildings. The second study took the research out of the lab, connecting green building with occupants’ health and productivity in 10 U.S. office buildings across geographic regions, finding a 26% improvement in cognitive test scores for those working in certified green buildings. Now, this third study will scale the research to further explore the connection between green buildings and human performance around the world.

“United Technologies is working to accelerate the green building movement around the world. We are engaged in an entirely new conversation on the value of green building because of this groundbreaking research,” says John Mandyck, Chief Sustainability Officer, United Technologies. “With an expanded value proposition that now includes productivity along with energy and water savings, we hope more building investors, owners, and tenants will choose green building. The research demonstrates that green building is not only good for the environment but also for people — that is a powerful combination.”

“We know that green office buildings improve health, wellbeing, and productivity thanks to groundbreaking academic research and data from leading businesses which are measuring the way buildings positively affect their staff,” said Terri Wills, CEO of the World Green Building Council. “This new global study will build upon existing research by demonstrating that relationship on a global scale, further strengthening the case for action. We’re eager to see the results.”

To kick off the global study, Harvard is working with JLL to sign up the first cohort of buildings. JLL specializes in real estate and investment management and with operations in more than 80 countries, and has the ideal geographic reach for the COGfx Global study.

“The ‘human experience’ is becoming the driving force in how workplaces are designed, built, and managed,” said Bob Best, Executive Vice President, JLL. “At JLL we are turning our approach to building management inside-out. It’s not how people fit into the buildings we manage; it’s how we manage the buildings to fit the needs of the people inside. The future of work is here and this research is key to our new strategy.”

Initial findings from the first set of buildings are expected in 2018. An overview video of the COGfx research and COGfx Study 3: Global Buildings can be found on YouTube. Building owners interested in participating can apply online via TheCOGfxStudy.com.