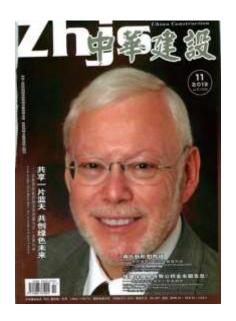


Healthier Buildings for People 让建筑和人民更健康



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让我们这一代每个人体验绿色建筑

GREEN BUILDINGS FOR EVERYONE WITHIN THIS GENERATION











200,000名LEED专业人士

SAFE HEALTHY 健康的 包容的 INCLUSIVE 智慧的 SMART PRODUCTIVE EFFICIENT **EQUITABLE** 平等的 SUSTAINABLE 可持续的 会响应的 **RESPONSIVE** 坚韧的 RESILIENT

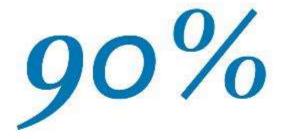
health & wellness is a **right**, not a privilege



办公室的健康、 福祉和工作效率: 绿色建筑的下一个篇章

http://worldgbc.org/news-media/building-business-case-health-wellbeing-and-productivity-green-offices

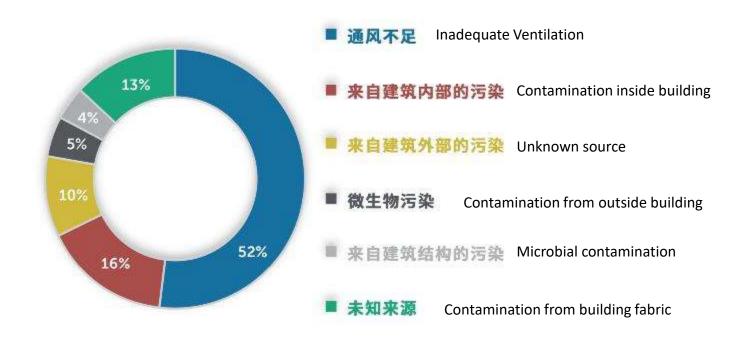
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的员工承认,工作场所环境质量会对他们的 工作态度产生不利影响。

We spend 90% of time indoors

室内空气质量问题来源



空气

提供最优质的室内空气,以改善建筑 住户的健康和福祉。

Create optimal indoor air quality to support the health and well-being of building occupants

材料选择、通风,过滤、湿气控制、维护和运营、问题来源预防、建造过程

派以所作の20th International West, Building Instruct PBC。気温所有材料。

Productivity improvements of 8-11% are not uncommon as a result of better air quality.

- World Green Building Council, 20151

得益于空气质量的改善而使工作效率提高 8-11% 的情况并不罕见。

- 世界绿色建筑委员会, 2015年1

一些污染物的浓度指标室内比室外高2到5倍。

- 美国环保局, 2012 年²

Concentrations of some pollutant indicators can be **2 to 5 times higher indoors** compared to outdoors.

- U.S. Environmental Protection Agency, 2012²

[「]有公安以下記憶」の企業工作表示(最高的效力を一下語彙(Head, Weltery a Productivity in Olice: The rest chapter for group building 、2015年、世界線の建設支援機会。 「美国社会系、区域性有限化合格(いて、生力空气に開発)はA invocation in viscos Ar Dushy (ACI)。| 担税性

CogFX Study

Harvard University T.H Chan School of Public Health Syracuse University State University of New York – Upstate Medical University

FUNDING SPONSOR:
UNITED TECHNOLOGIES CORPORATION (UTC)

2015: Indoor Environment (IEQ)

2x Cognitive Function

Improved indoor environmental quality doubled cognitive function test scores. Scores averaged 101% higher in green buildings with enhanced ventilation compared to conventional buildings

Scores Up Across the Board

Large improvements in scoring were seen across categories such as crisis response, information usage, strategy, task orientation, and information seeking

Value of Increased Productivity

Estimated \$6,5000 in annual improved productivity in green buildings with enhanced ventilation

2016: Buildingenomics

Better Health in Green Buildings

Occupants registers higher levels of cognitive functioning in green-certified buildings, also slept better and reported fewer health symptoms as compared to those in conventional buildings

Holistic Approach

Buildinomics – a new approach that examines the totality of factors in the building-related environment that influence the human health, well-being and productivity of people who work in buildings

More to Come

These are just the early findings.

绿色建筑评价标识简介-3 Chinese Green Building Label-3



绿色建筑设计 评价标识证书 GBDL certificate

- "绿色建筑设计评价标识":
- 完成施工图设计阶段,2年有效
- Green Building Design Label:
- After finishing execution drawings
- 2 year validity



绿色建筑评价标识 挂牌和证书

GBL plaque and certificate



- "绿色建筑评价标识":
- 竣工并投入使用1年以上,3年有效
- Green Building Label:
- Operation for at least 1 year
- 3 year validity





LEED V4



Like a nutrition label, LEED shows the ingredients that go into a green building, home, or neighborhood.

LEED v4 SYSTEM GOALS

35	Reduce contribution to global climate change 全球气候变化
20	Enhance individual human health 人类健康
15	Protect and restore water resources 水资源
10	Protect and enhance biodiversity and ecosystem services 生物多样性
10	Promote sustainable and regenerative material cycles 可持续材料
5	\$Build a green economy 绿色经济
5	Enhance community quality of life 生活质量

LEED v4 Health-related Credits

Indoor Environmental Quality

Minimum Indoor Air Quality Performance; Environmental tobacco smoke control; Enhanced indoor air quality strategies; Low-emitting materials; Construction indoor air quality management plan; Indoor air quality assessment; Thermal comfort; Interior lighting; Daylight; Quality views; Acoustic performance

Sustainable Sites

Heat Island Reduction; light pollution reduction; open space

Location & Transportation

Bicycle facilities

Pilot Credits

Integrative Process for Health Promotion; Enhanced Acoustic Performance; Indoor Air Quality Procedure; Ergonomics for Computer Users; Prevention Through Design; Lead Risk Reduction; Learning controls for thermal comfort; Local Food Production



WELL 就像是建筑的**营养** 标签,使建筑环境的质量 透明化。 **Seven Concepts**

七个概念





LEED v4关注人的健康福祉。它不仅仅与正确的材料相关,它还关注人。 他们的福祉。当人们在北京寻找办公空间的时候, 他们想得到证据说明这个空间是安全的、健康的。他们想看到LEED证书。

LEED v4 is about wellness. It's not just about the right materials, it's about the people. Their wellness. When people here in Beijing look for office space, they want to see proof that the space is safe, that it is healthy. They want to see the LEED certificate.

Regina Tay

Marketing and Communications

Manager Haworth

海沃氏市场和传媒经理

Get the return on investment in people

投资于**人员**,获得 投资回报。

- 1. Knoll Workplace Research: "What's Good for People, Moving from Wellness to Wellbeing", Kate Lister, 2014
- 2. Studies Include those conducted by organizations including Harvard Business Review, World Economic Forum, and the American Journal of Health Promotion.



- Nool 工作成が研究 "什么对例工有论处,这类从数据对验证等方方面面" Whats Good for Psopie, Moying from Wellness to Well-Bengl, Kate Lister、2014 年

包括由時像產业等能、世界經濟的環及美國佛養促進派表等組織进行的研究。

斯拉莱斯: 世界经典建筑委员会报告"办公室的健康、福祉和工作教师" (Lealer, Weiberg & Productiony o Offices)

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what cannot be **measured** cannot be **managed**准确的数据有助于管理



美国绿色建筑委员会总部的LEED动态奖牌



For the first time ever, the world's largest and most influential green building conference in the world—Greenbuild—is coming to China.

greenbuild.usgbc.org/china

Shanghai October 17-18, 2017



