

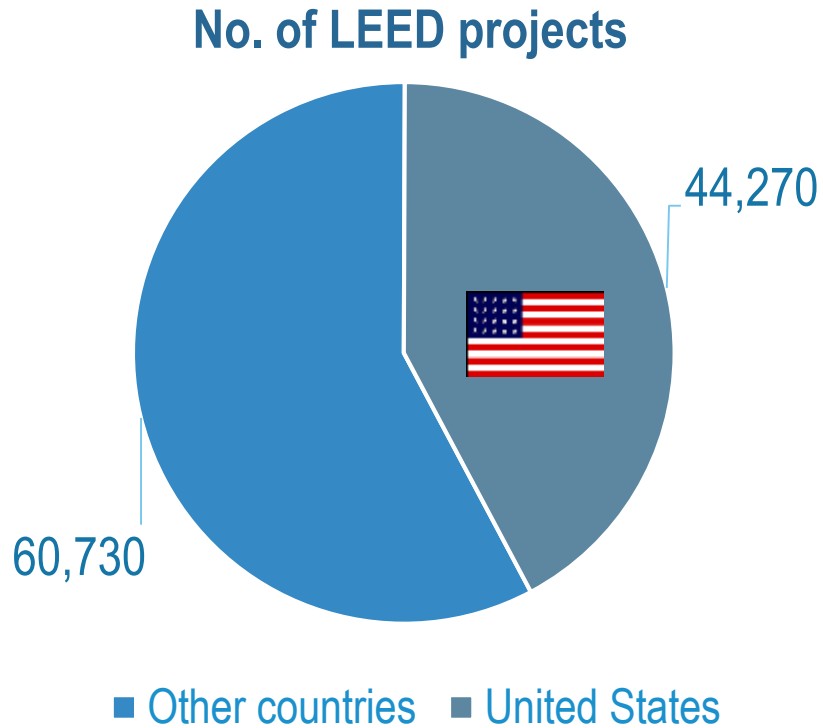


The Green Building Trend in Vietnam

Late entrant. Fast mover

- Green building – an emerging trend in Vietnam
- Sustainability – There's more to it than just "GREEN"

42% of LEED certified buildings are in the U.S. China & Canada lead outside the U.S.

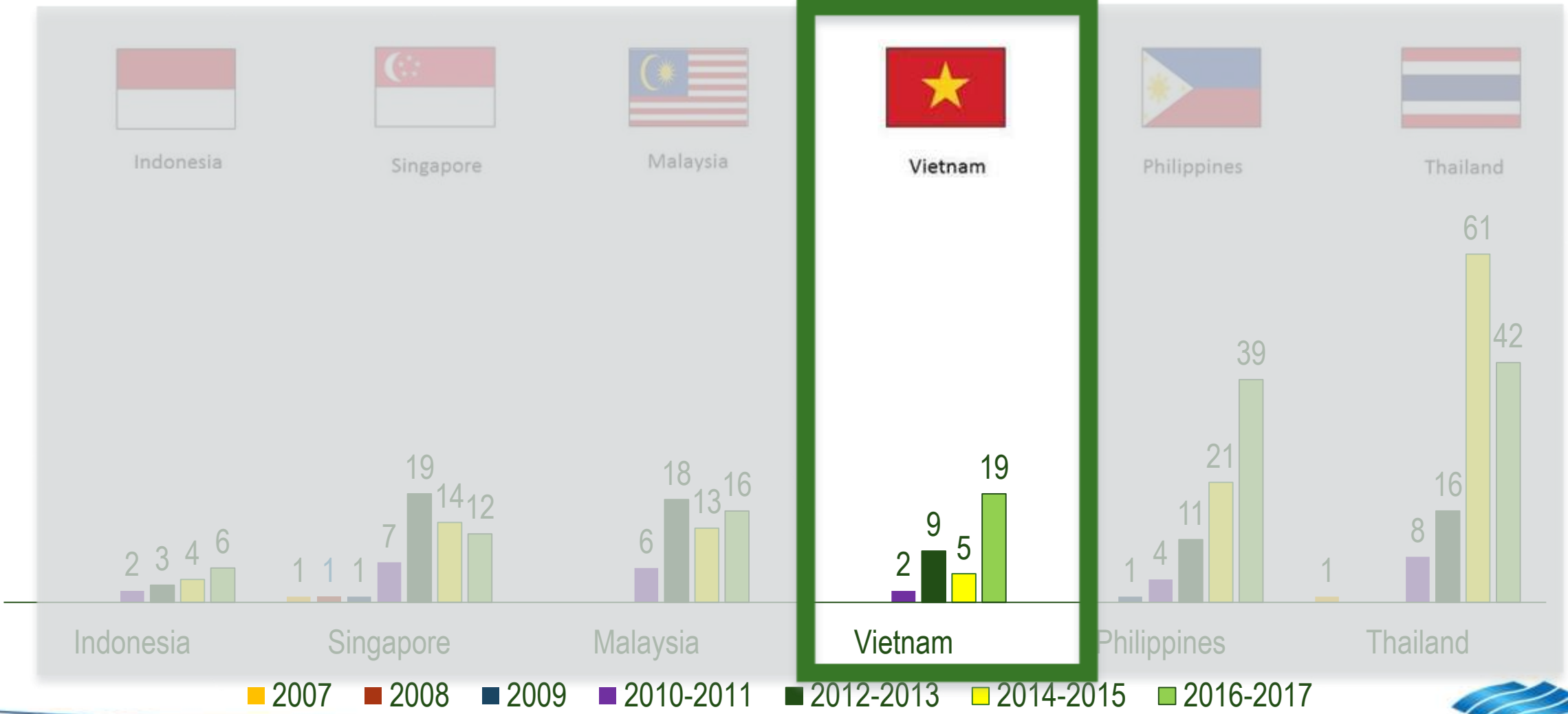


Source: USGBC



Vietnam catching up to leaders in newly certified Green buildings (LEED/EDGE/Green Mark/Lotus) in South-East Asia in recent years

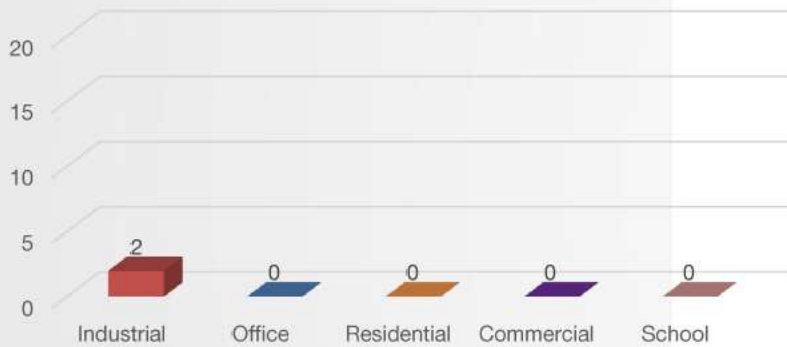
Late start. Fast pick-up



2010 - 2011

02 PROJECTS

by CATEGORIES



by CERTIFICATION SYSTEM



Colgate-Palmolive
LEED Silver - 2010
Industrial building



YCH-Protrade DistriPark
LEED Silver - 2011
Industrial

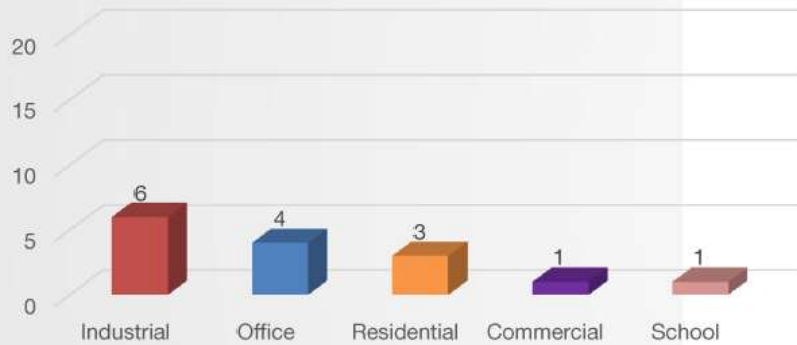


VGBC Vietnam Green Building Council
Hội đồng Công trình xanh Việt Nam

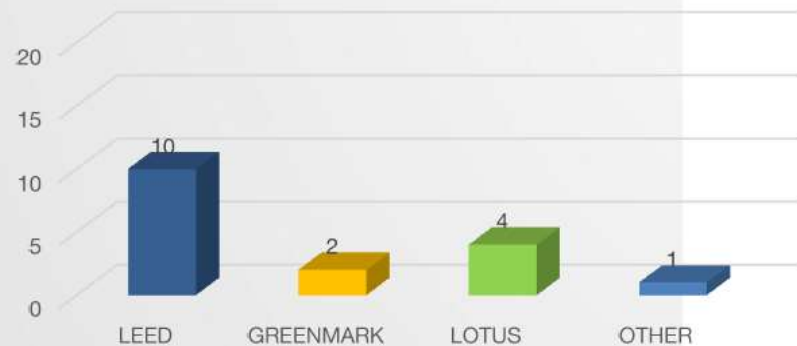
2012 - 2013

15 PROJECTS

by CATEGORIES



by CERTIFICATION SYSTEM

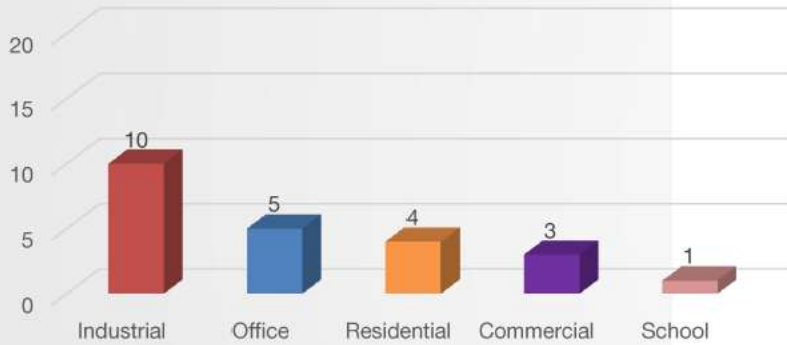


VGBC Vietnam Green Building Council
Hội đồng Công trình xanh Việt Nam

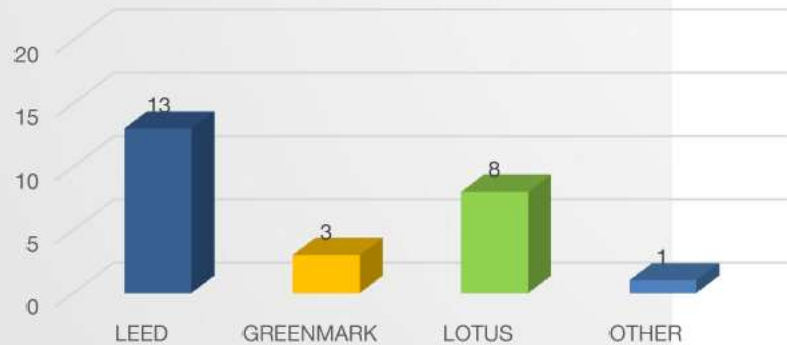
2014

23 PROJECTS

by CATEGORIES



by CERTIFICATION SYSTEM



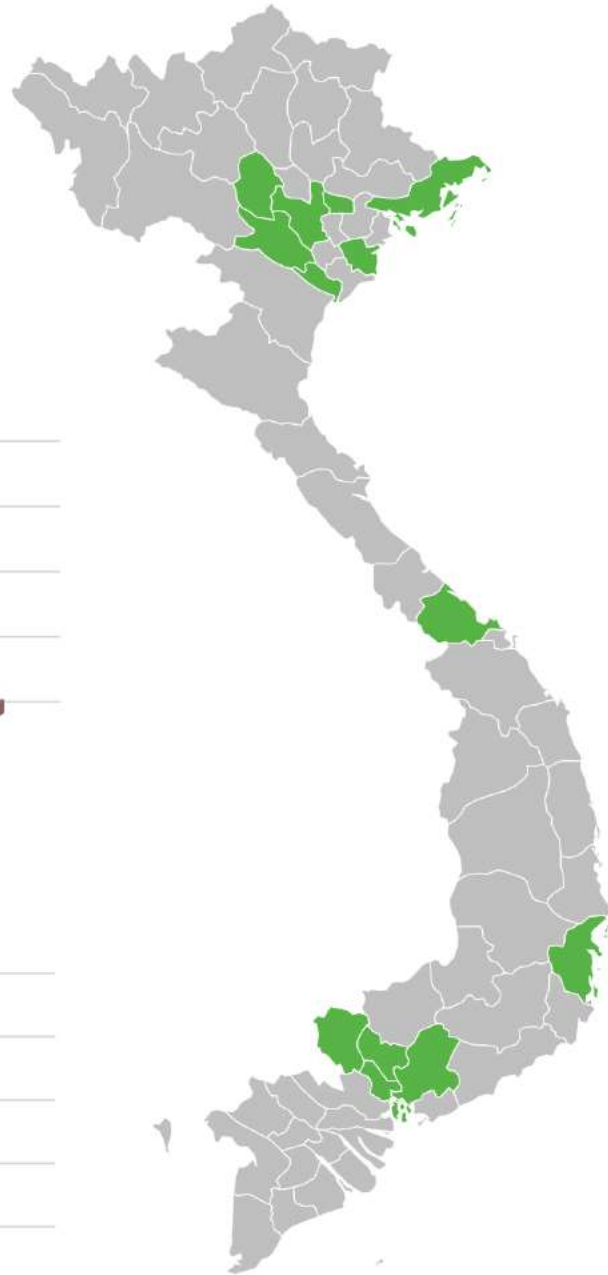
2015

27 PROJECTS

by CATEGORIES



by CERTIFICATION SYSTEM



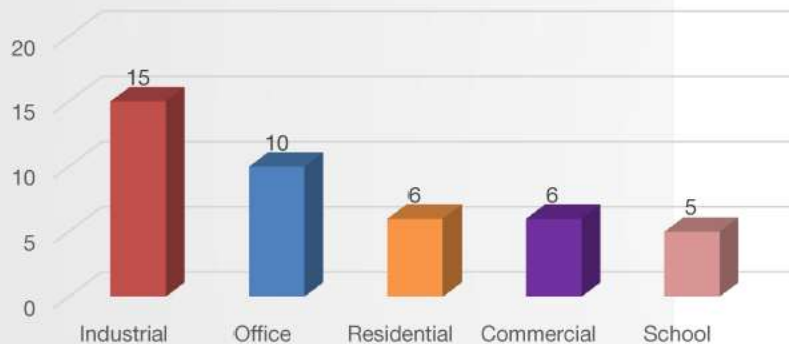
2016 – 2017

Forecast

42 PROJECTS

and more

by CATEGORIES

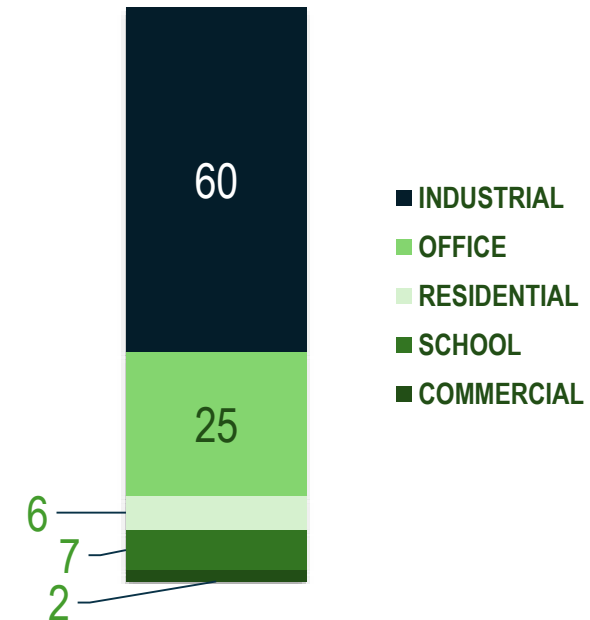


by CERTIFICATION SYSTEM



VGBC Vietnam Green Building Council
Hội đồng Công trình xanh Việt Nam

170 Green Building projects registered for certification in Vietnam in 2017



What's driving this change?



Recent government incentives boost residential and office buildings registrations for green building certification



President Place, District 1, . Hồ Chí Minh

FLOOR AREA RATIO +1 FOR GREEN BUILDINGS

**HIỆP HỘI
BÁT ĐÔNG SẢN VIỆT NAM**

Số: 54/TM - VNREA

V/v Mời tham gia lễ ký kết đồng hành
cùng Chương trình Phát triển (công
trình) xanh & bền vững

**CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập- Tự do- Hạnh phúc**

Hà Nội, ngày 22 tháng 8 năm 2017

THƯ MỜI

Kính gửi: ...

Thực hiện chức năng và nhiệm vụ của Hiệp hội được quy định tại Điều lệ Hiệp hội. Ngày 20/04/2017, Chủ tịch Hiệp hội ký Quyết định số 26/2017/QĐ- VNREA-BCH thành lập Ban điều phối phát triển Công trình xanh nhằm Xây dựng tổ chức, triển khai thực hiện kế hoạch hành động về Chương trình thúc đẩy phát triển công trình xanh trong lĩnh vực nhà ở đô thị, dịch vụ thương mại và du lịch trên phạm vi toàn quốc, phù hợp với Chiến lược Tăng trưởng xanh quốc gia và Kế hoạch hành động Quốc gia về tăng trưởng xanh đã được Thủ tướng Chính Phủ ban hành.

Để khởi động chương trình, ngày 26/05/2017 tại Hà Nội, Hiệp hội đã tổ chức Hội thảo “Chương trình phát triển công trình xanh tại Việt Nam”. Tiếp nối chương trình, ngày 09/09/2017 Hiệp hội tổ chức Hội thảo tại TP HCM với chủ đề “**Phát triển công trình xanh trong bối cảnh biến đổi khí hậu ở Việt Nam**”. Cụ thể:

1. Nội dung chương trình (trong file đính kèm)

2. Thời gian, địa điểm

- Thời gian: 08h00 ngày 9/9/2017

- Địa điểm: Sài Gòn Prince Hotel – 63 Nguyễn Huệ, Phường Bến Nghé, Quận 1, TP HCM.

DEVELOPERS COMMITTED TO GOING GREEN



2010



Estella Apartment
D2, HCMC

117,000m²;
719 Căn hộ

Green Mark-Gold 2010
Singapore

2010



Riviera Cove Villas, D9, HCMC

10 ha
35,000m²
96 villas

Green Mark 2010
Singapore

2012



President Place Building
D1, HCMC

15,000m²
LEED Gold 2012
USA

8 Projects under certification



 Vista Verder Apartment	 Riviera Point Apartment	 Diamond Lotus Apartment	 Saigon Center 2	 Lavenue Crown CDT: Lavenue Crown, (góc HBT & Lê Duẩn)	 German house CDT: DN Đức (Đ.Đ. Duẩn, M. bên Rừng)	 Viet Capital Center CDT: Viet Capital bank (Ngô văn Năm, Q.1)	 Satra Tax Center CDT: SATRA (Thương và SAK cũ)
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Going green does not have to cost significantly more – TTT Office



TTT Architects office
Green solutions

- 4% cost: Energy efficient solutions (get back in 4 years)
- 3% cost: Increase interior air quality (paid for our health)
- 1% cost: Contribute to environment

Cost increased for GREEN: **8% of total cost**

Sustainability trend in industrial buildings led by large corporations.

Many apparel and footwear brands set “green” targets for their suppliers

NIKE, INC. HOW WE WORK

COMMITMENTS MANUFACTURING

72%

NIKE BRAND FOOTWEAR THAT COMES FROM FACTORIES THAT MEET MINIMUM REQUIREMENTS OF NIKE ENERGY & CARBON PROGRAM

adidas

every drop counts

50% LESS ENERGY

50% FEWER CHEMICALS

25 LITERS WERE SAVED MAKING THIS SHIRT

100% PERFORMANCE MADE WITH LESS WATER

RETHINK REDUCE

NIKE, INC. MANUFACTURING INDEX: METRICS ROAD MAP

ACHIEVING OUR VISION OF A SUSTAINABLE SUPPLY CHAIN REQUIRING FACTORIES TO BALANCE PERFORMANCE ON EVERY DIMENSION AS A CORE TO OUR BUSINESS RELATIONSHIP.

FACTORY				GROUP*
QUALITY ★ 25% PRODUCT ISSUES DEFECTIVE RATES MANUFACTURING PROCESSES	DELIVERY ✎ 25% DELIVERY PRECISION PLANNING PRECISION	COSTING \$ 25% COST COMPETITIVENESS COST ACCURACY COST TIMELINESS	SUSTAINABILITY 🌿 25% LEAN IMPLEMENTATION ENVIRONMENT/ENERGY LABOR, HEALTH & SAFETY	STRATEGIC METRICS 🧩 MANAGEMENT VISION & STRATEGIC PLANNING LEADERSHIP PLANNING & DEVELOPMENT



Coca Cola Factory, HCMC

LEED Silver 2015 USA



**BigC Green Square ,
Shopping Centre
Dĩ An, Bình Dương –**

**LEED Gold 2013 USA
Lotus Silver 2013 Vietnam**



Case study: Canifa – Garment Factory - Hung Yen



Materials

Item	Maximum LEED points	Potentially Achievable
Sustainable sites	26	16
Water	10	8
Energy	35	12
Materials	14	4
Indoor air quality	15	4
Innovation	6	4
Regional Priority	4	4
Total	110	52

Sub-item	Maximum LEED points	Potentially achievable
Heat Island Reduction – Non-roof	1	1
Heat Island Reduction - Roof	1	1
Recycled Content	2	2
Regional/Local content	2	2

Case study: Canifa – Garment Factory - Hung Yen

Cost of Steel contribution

	Value (\$)	Percent (%)
Total project investment	5,000,000	100%
Total materials cost	2,200,000	44%
Total steel (long & flat) cost	500,000	10%

LEED points contribution

Credit	Points
Heat Island Reduction – Non-roof	1
Heat Island Reduction - Roof	1
Recycled Content	2
Regional materials	1
Total Points	5
Certification Requirement	40
% Steel (long & flat) points contribution	12.5%

Incoming version LEED v4 more stringent materials requirement.
Enhancing role of steel building materials, especially in cladding.



- 01/11/2016: LEED v4 must be used for any new registration
- 30/06/2020 : Deadline to submit design for existing LEED v3 registrations

1. More stringent requirement for materials:
 - Higher SRI
2. Life Cycle requirements :
 - Aged SRI
 - New credit : Building Life Cycle Impact Reduction

Environmentally sustainable



However, a commercially sustainable building needs to be more.

It needs to withstand nature's harsh conditions



Devastating Effects of storms on industrial building roofs



A photograph of a large industrial workshop or factory that has suffered significant structural damage. The roof, which was supported by a complex steel truss system, has partially collapsed, with large sections of corrugated metal roofing and wooden beams falling away. The interior is cluttered with stacks of raw wood, piles of green and yellow corrugated metal sheets, and various pieces of machinery, including a large blue and white industrial machine. In the background, a red banner with white text is visible, along with another sign. The overall scene conveys a sense of disruption and loss of business operations.

Business operations
interrupted

AN TOÀN ĐỂ SẢN XUẤT, SẢN XUẤT PHẢI AN TOÀN

NĂNG ĐỘNG - SÁNG TẠO - TÍN DỤNG - CHUNG THỰC

Thị trường Bất Động Sản Việt Nam



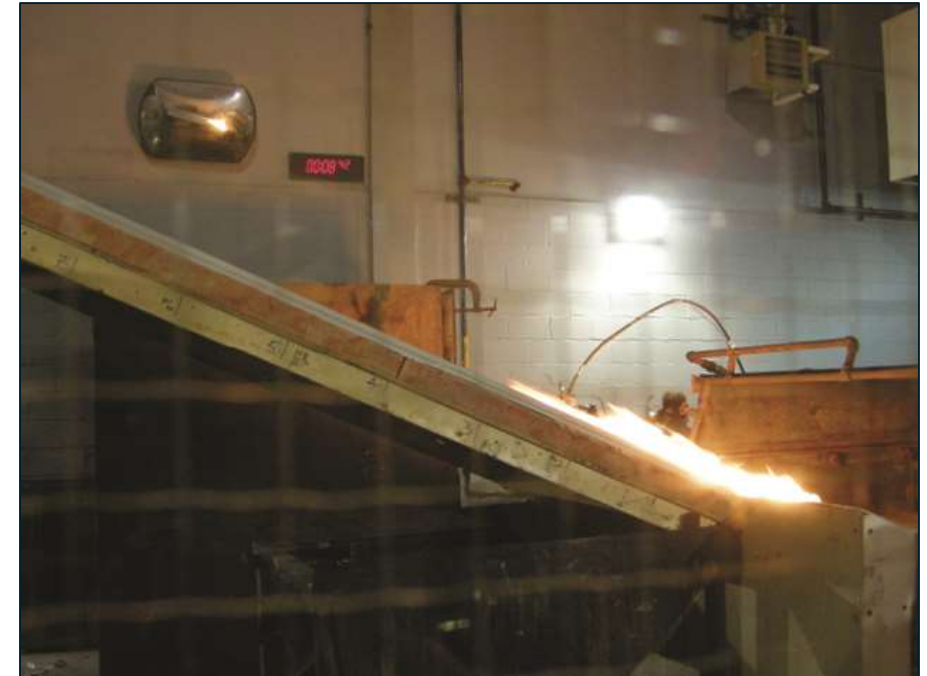
FM Approved solutions recommended for protecting the building from damage to itself and others around it.

Tested at FM APPROVALS' accredited laboratory for resistance against wind up-lift & fire spread.



Wind up-lift resistant

Minimize damage to building



Retards flame spread.

Localise damage



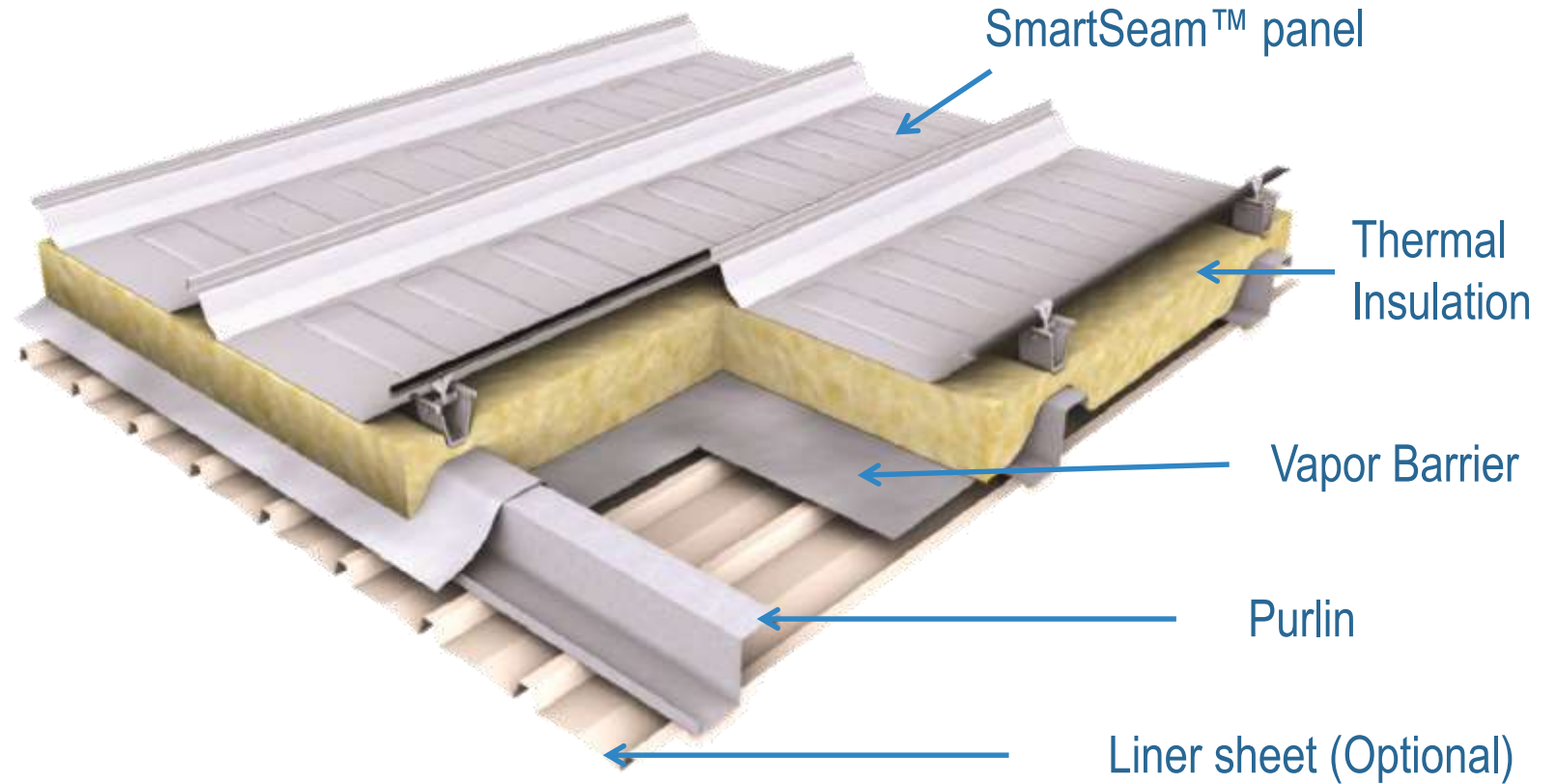
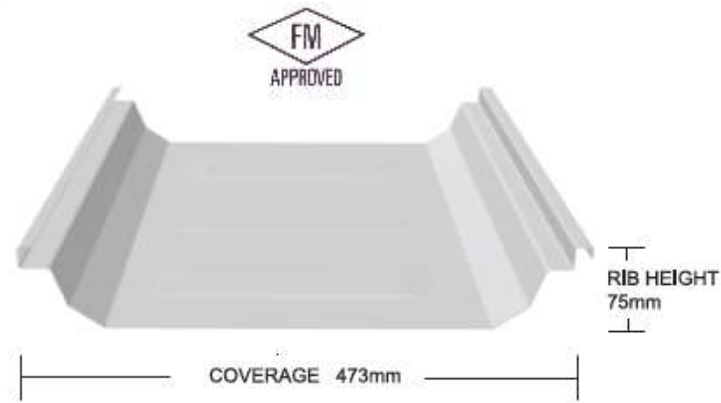


APPROVED

Compliance to FM approved

Đáp ứng tiêu chuẩn FM approved

Lysaght SMARTSEAM™



Features	Benefits
➤ 360° seaming technology	➤ No air leaking. No water leaking
➤ Super high rib of 75mm	➤ Roof run up to 150m ➤ Minimum roofing pitch: 2%
➤ Simulated Wind up-lift testing by FM Accredited laboratory ➤ FM Approved Certificate	➤ Reliable data for roofing design. ➤ Reduce Clients' risk



In closing...

- Green Building – a smart choice that turns a well-designed building into a Certified Green Building at virtually no extra cost.
- It makes commercial sense, especially in the Central region, to think also about “sustainability” from an engineering angle.

Thank you