

# DECODING SUSTAINABILITY

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*Saint-Gobain*

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# DECODE

**Verb** - convert (a coded message) into intelligible language.  
"he put down the phone and decoded the message"

**Synonyms** - decipher, decrypt, unravel, untangle, work out, sort out, piece together, solve, interpret, translate, construe, explain, understand, comprehend, apprehend, grasp.



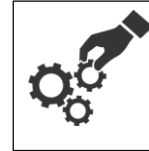
# MEANING FOR SUSTAINABILITY



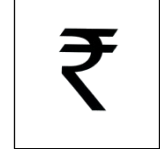
Energy saving



Reduced use of natural resources



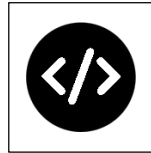
Frugal operations



Too costly capex



Too technical



Literally a coded language for many !

...all positive in reality....

...but ....

...feeling of compromise, sacrifice....

.....difficult to comprehend ....



# MEANING FOR SUSTAINABILITY



Turn it around on its head.....

....Sustainability is Sustained Comfort.....



# MEANING FOR SUSTAINABILITY

## COMFORT IN NUMBERS MULTICOMFORT CRITERIA DEVELOPMENT

Compulsory technical criteria – New Residential





# MEANING FOR SUSTAINABILITY

## COMFORT DESCRIPTORS BY PURPOSE, BY TYPE OF OCCUPANCY

**COMFORT DESCRIPTORS**  
OPEN SPACE OFFICE

**COMFORT DESCRIPTORS**  
MEETING ROOM

**COMFORT DESCRIPTORS**  
CLASSROOM

**COMFORT DESCRIPTORS**  
HALL, COVERED PLAYGROUND (TBC)

**COMFORT DESCRIPTORS**  
PATIENT ROOM (TBC)

**COMFORT DESCRIPTORS**  
NURSING WORKING AREAS (TBC)

Legend: ++ STRONG, + MEDIUM, 0 NEUTRAL

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KPI, descriptor	Evaluation - Measurement	Unit	Bad	Basic	Comfort	High	END USER KPI				
							A	B	C	D	
TC1- Global comfort	% time inside the hyperthermal comfort zone (Top 5%)	%	>75%	>50%	>25%	100%	++	++	0	-	
Thermal	Air velocity	m/s	< 0.15 (W)	< 0.25 (S)	< 0.5 (W)	< 0.5 (S)	++	++	0	-	
	TC2- Local discomfort	Radiant asymmetry (RA)	°C	> 4	> 3	> 2	++	++	0	-	
Acoustic	AC1- Sound level	dB	> 40	> 35	> 30	> 25	++	++	++	++	
	AC2- Room acoustic	Reverberation time (T1)	s	> 0.8	> 0.7	> 0.6	> 0.5	++	++	++	++
IAQ	IAQ1- Stuffy/odors	CO2 content in the air	ppm	> 1000	> 800	> 600	> 400	++	++	0	+
	IAQ2- Chemical pollutants TVOC	TVOC	µg/m³	> 3000	> 2000	> 1000	> 500	++	+	0	+
Visual	VC1- Light quantity	Daylight autonomy (%)	< 20	< 40	< 60	> 80	++	++	+	+	
	VC2- Light quality	Daylight autonomy (%)	< 20	< 40	< 60	> 80	++	++	+	+	
Visual	VC3- Views	UDI exceeded (%)	< 5	< 10	< 20	> 20	++	0	++	0	

NB: different roles for nurses : caring/administrative/hospitality  
Different needs in different services

A. Reduce stress  
B. Improve focus  
C. Improve connection with patients  
D. Improve communication with other staff



# MEANING FOR SUSTAINABILITY

## POWER OF EVIDENCE

HARVARD PUBLICATION

**Short running title:** Green buildings and cognitive function

**Full title:** Associations of Cognitive Function Scores with Carbon Dioxide, Ventilation, and Volatile Organic Compound Exposures in Office Workers: A Controlled Exposure Study of Green and Conventional Office Environments

**Advance Publication:** 26 October 2015

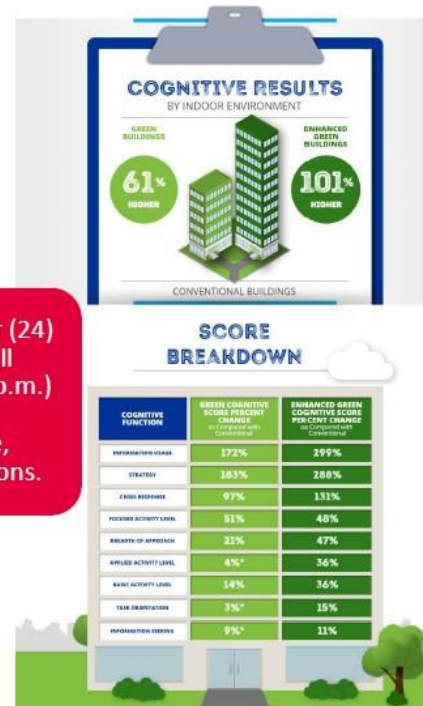
ENVIRONMENTAL HEALTH PERSPECTIVES



**Methods:** Twenty-four (24) participants spent 6 full work days (9 a.m. – 5 p.m.) in an environmentally controlled office space, blinded to test conditions.

## BETTER THINKING

BY THE NUMBERS





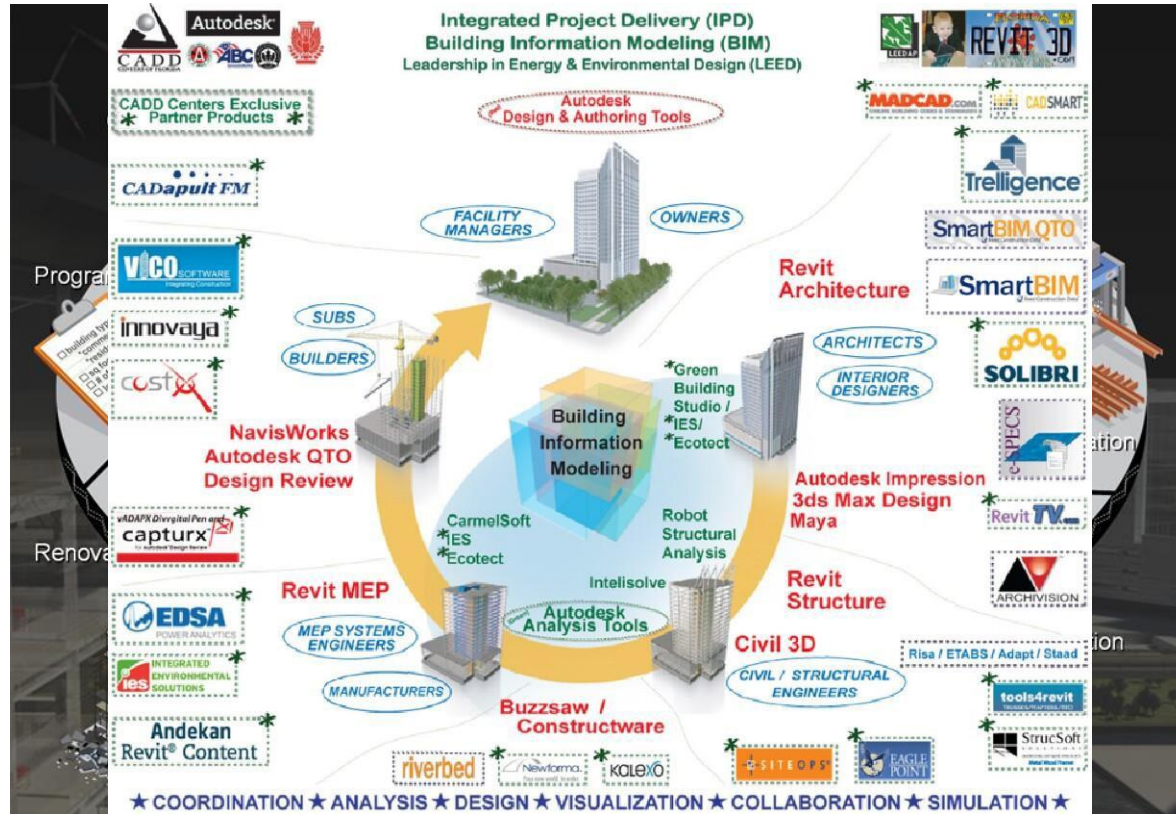
# DESIGNING FOR SUSTAINABILITY







# DESIGNING FOR SUSTAINABILITY





# SKILLING FOR SUSTAINABILITY



National level paper presentation contest and scholarship support event for projects / research study on Glass.

#### How can this help you?

Provide brilliant young minds to your accounts for 3-6 months as apprentices / intern candidates to strengthen their team.

**Beneficiaries:** Architects & Builders



2015 LAUNCH & FIRST EDITION AT ST MADRAS



A first-of-its-kind program in the country, imparts glass processing & facade installation skills to new entrants as well as existing workforce.

#### How can this help you?

Support the industry with well-trained & skilled manpower including Labors, Helpers, Fixmen, Fitters & Supervisors in trades of Glass Processing, Facade & Frenovation and Interior Glass Installation.

**Beneficiaries:** Processors, Fabricators & Interior Glass Installers



SIGIC is an initiative that aims at bringing about improvements and enhancements to Glass Processing Companies.

#### How can this help you?

Improve the quality standards and payback of customers with best techniques, training, right practices & audits.

**Beneficiaries:** Processors, Fabricators & Interior Glass Installers



## GLASS ACADEMY



State-of-the-art e-learning content developed by Industry experts and subject matter experts delivered seamlessly through Glass Academy learning platform.

#### How can this help you?

Support your accounts with free e-learning resources and reference materials on their profession.

**Beneficiaries:** Building Industry



## Glass Curriculum

Industry based Elective courses for Students of Architecture.

#### How can this help you?

Get the best among your Architectural firms as our Guest Lecturers.

**Beneficiaries:** Architects, Energy Consultants



## G-Workshop

A series of workshops for professionals and students in the industry.

#### How can this help you?

Train and identify the potential new players in the industry to help them become bigger & better professionals.

**Beneficiaries:** Fabricators, Dealers, Kitchen Makers, Installers



## Enlightened Spaces

A series of webinars presented by the who's who in the world of design and architecture that helps you discover ways to make walls disappear and achieve the impossible.

#### How can this help you?

Get your best accounts to attend our webinar sessions from industry experts. If they are one among them, we are offering them a session to enlighten us!

**Beneficiaries:** Architects, Builders, Facade & Energy Consultants





# FUTURE FOR SUSTAINABILITY

## Engage

*Agile, dynamic, adaptable, inspiring, comfortable, bright, fun*

## Useable

*Functional, learnable, user-centred*



## Empower

*Welcoming, inclusive, nurturing, secure, motivating, accessible*

## Supportive

*Sustainable, maintainable, robust, safe, healthy*

## Learning



## Social

## Mental and Physical Wellbeing



## Sense of Belonging

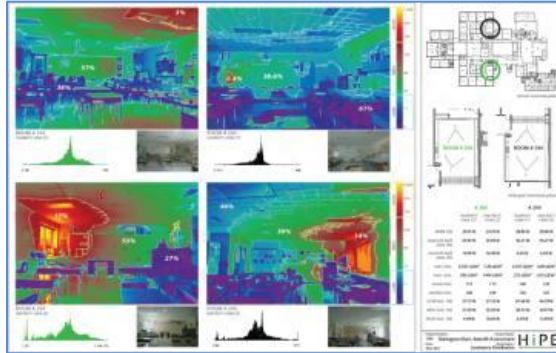


# FUTURE FOR SUSTAINABILITY



## Education Sector A Design Guide

Creating the optimum learning environment  
in schools, colleges and universities



**sound education** Site Search

Event locations: [London](#) > [Stockholm](#) > [Munich](#) > [Copenhagen](#) >

During the course of 2012, a series of international seminars were held in London, Stockholm, Munich and Copenhagen.

These seminars named Sound Education - brought to you by Ecophon, were exclusive events which explored and revealed some disturbing facts and exciting news about auditory environments in schools.

**8 Videos**

Fabehavn Sound Education Seminar 2012

**12 Videos**

München Sound Education Seminar 2012

**5 Videos**

Click here to view the TED Talk at TED.com

**19 Videos**

Click here to read more about the Essex story

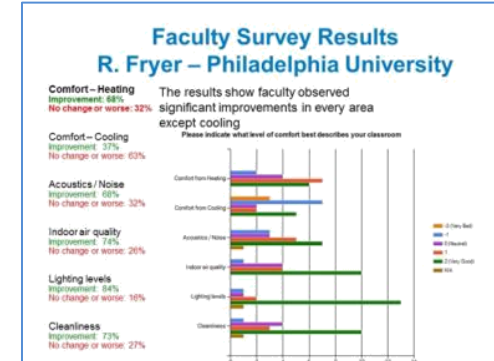
**Essex Classroom**

Click here to view the Ballroom pop video

**SStudy App**

Click here to download the Study App for iPhone

Click here to download the Study App for Android



- ### Faculty Survey Results
- Differences in observed student behavior:**
- Engagement up by 67%
  - Trouble completing tasks down by 50%
  - Noise complaints down by 88%
  - Trouble seeing down by 67%
  - Complaints of too hot or cold:
    - 33% say worse
    - 33% say the same
    - 33% say better
  - Indoor allergies are reported as being the same, but that outdoor allergies may be increasing



# DECODING SUSTAINABILITY



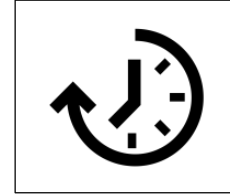
Meaning



Designing



Skilling



Future

for

# Sustainability

Thank You !

