

Press Release

Study by EmiratesGBC and Saint-Gobain UAE recommends measures to enhance indoor environmental quality of schools in the UAE

- *Comprehensive report supports the vision of the Emirates Coalition for Green Schools to ensure every child in the UAE learns in a green school*
- *Study identifies that limit values set by the government authorities for IEQ are inadequately met*
- *Webinar to announce report calls for joint efforts by various stakeholders to create and maintain healthier school environments*

Dubai, UAE; March 3, 2021: Emirates Green Building Council (EmiratesGBC), an independent forum aimed at conserving the environment by strengthening and promoting green building practices, today unveiled the findings of its in-depth study on the indoor environment quality (IEQ) of a representative school in the UAE, conducted in partnership with Saint-Gobain UAE.

The report, **‘Making UAE Schools Healthy: In-depth Measurement of Indoor Air Quality’** highlights the need to enhance schools’ indoor environment by taking into consideration not only the air quality but also factors such as lighting, acoustics and thermal comfort. The study is part of the ongoing activities of the Emirates Coalition for Green Schools, which promotes discussions on creating a national vision of healthy, high performance schools that are conducive to learning while saving energy and resources cost-efficiently.

It followed the recommendations of the roundtable hosted by EmiratesGBC in November 2018, which discussed the lack of adequate IAQ in typical UAE schools. At a webinar to mark the launch of the report, industry experts shared the challenges and opportunities for improving IEQ at schools in the UAE and across the region.

Announcing the findings, **H.E. Ali Al Jassim, Chairperson, EmiratesGBC**, said: “While the pandemic situation altered ways of schooling, with the vaccination programme and confidence returning, students are increasingly returning to schools. This presents us the opportunity to highlight the findings of our crucial study on indoor air quality in UAE schools, and take measures to provide a healthy environment for our future generations. The measures will not only contribute to their well-being but also inspire them to champion green practices. The Emirates Green Coalition of Schools helps raise awareness on the concern regarding IAQ. Concerted efforts by all stakeholders – including the public and private sectors – are need to convert the over 1,000 schools in the country into green schools.”

Paul Button, CEO, Saint-Gobain UAE, added: “The study marks a milestone as it provides evidence-based insights on the state of IAQ in our schools. With the pandemic accelerating the need to prioritise the well-being and health of all, taking due diligence measures and implementing scientific measures to enhance indoor air environment alongside other critical factors including acoustics, light and thermal comfort must become a national priority. The UAE has set a model in championing sustainable development and our partnership with EmiratesGBC will further the cause towards a more sustainable nation by helping drive awareness on the need to introduce environmental best practices in our schools.”

The study covered a comprehensive audit of the indoor air quality conditions at a representative school in the UAE, through continuous monitoring combined with standardised air sampling. One of the main findings is that the limit values set by the government authorities for temperature, humidity, and carbon dioxide (CO₂) are far from being met in the two sample classrooms in the selected school. This will have a negative impact on the children's learning abilities.

The identification of individual Volatile Organic Compounds (VOC), carried out through the air sampling, also provided valuable inputs. The main pollutants were identified as acetone, benzene, toluene, ethylbenzene and xylene (BTEX) and terpenes, which are usually generated from cleaning products. The measurements of illuminance and acoustics showed improvements are needed to enhance the well-being and comfort for all occupants and the learning abilities of students.

Another recommendation is to amend local regulations to align with other international green building certifications that consider air sampling and not continuous monitoring devices to determine total VOC concentration. Taking into consideration the pandemic situation, schools are urged to follow the recommended guidance published by global organisations such as American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and the Federation of European Heating, Ventilation and Air Conditioning Associations (REHVA).

The main recommendations are to increase the outdoor air flow rate supplied to the building as per ASHRAE/REHVA standards and to reduce the percentage of indoor air recirculation. This will avoid CO₂ and pollutant accumulation, and also cross contamination. Humidity levels in classrooms must also be maintained at acceptable ranges for thermal comfort and to prevent moulds. Selecting fragrance-free cleaning products and/or those with eco-labels to reduce the concentration of terpenes, and use of low emitting VOC products and window solar films are other recommendations.

The report outlines a clear call to action to diverse stakeholders. This includes the need for government authorities/policy makers to drive action to improve and maintain good IEQ, which will in turn help the nation achieve its goal of building a knowledge-based and globally competitive society. The report urges schools and school facility managers to prioritise actions that improve IEQ and to lead by example, while parents, students and school staff are called upon to advocate for improvements and enabling change by acting as advocacy groups and continuously checking the IEQ performance.

The study reaches out to designers and green building consultants to streamline adequate IEQ levels in their design and construction of schools, and urges manufacturers and suppliers to understand and disclose the health implications of their products as well as ensure their products do not have toxic chemicals. NGOs and research institutes can play a part by reaching out to their wider network for expertise and accelerating the movement towards green schools.

In addition to **H.E. Ali Al Jassim** and **Paul Button**, speakers at the webinar included: **Majd Fayyad**, Technical Manager, EmiratesGBC; **Jason John**, Technical Engineer, EmiratesGBC; **Nada Chami**, Head of Product & Innovation, Saint-Gobain; **Valérie Goletto**, Senior R&D Project Leader, SGR Paris, France; **Vincent Gignoux**, Analytical Chemistry Lab Manager & R&D Portfolio Manager, Insulation R&D Centre, France; **Catriona Brady**, Director of Strategy and Development, World Green Building Council; **Corinne Mandin**, President, International Society for Indoor Air Quality and Climate & Head of Unit – Exposure Assessment and Indoor Air Quality, CSTB; **Avinash Kumar**, Associate Partner, Godwin Austen Johnson; **Graeme Scott**, Director, Fairgreen International School, Dubai; **Abdel Aleem Khan**, Specialist - Policies &



Environment Urban Policies – Planning & Infrastructure Sector, Department of Municipalities & Transport, Abu Dhabi. The session was moderated by Dr. Waleed Yagoub, Director, EmiratesGBC .

Schools and other stakeholder groups, including private sector entities working towards promoting sustainability, can become part of the Emirates Coalition for Green Schools. They can also support and undertake sponsorship packages that offer several benefits including recognition as an 'Emirates Coalition for Green Schools Champion'. For further information, please visit <https://emiratesgbc.org/> or contact the EmiratesGBC team at office@emiratesgbc.org or call: 04 346 8244.

-ends-

About [Emirates Green Building Council](#):

The Emirates Green Building Council (EmiratesGBC) was founded in June 2006, and became the 8th full member of the World Green Building Council in September 2006. EmiratesGBC promotes and educates on green issues in the built environment and is the official body for the UAE endorsed by the World Green Building Council. EmiratesGBC currently has around 170 members in the UAE which represents 1000s of individuals interested and involved in Green Building in the UAE and the region. In addition, EmiratesGBC members receive discounts on a number of programmes such as those related to conferences, seminars, training and green building events.

For more information:

Kelly Home | Iman Ahmed
ASDA'A BCW | +9714 4507600
kelly.home@bcw-global.com
iman.ahmed@bcw-global.com

About [Saint-Gobain](#):

Saint-Gobain designs, manufactures and distributes materials and solutions for the construction, mobility, healthcare and other industrial application markets. Developed through a continuous innovation process, they can be found everywhere in our living places and daily life, providing wellbeing, performance and safety, while addressing the challenges of sustainable construction, resource efficiency and the fight against climate change.

This strategy of responsible growth is guided by the Saint-Gobain purpose, 'MAKING THE WORLD A BETTER HOME', which responds to the shared ambition of all the women and men in the Group to act every day to make the world a more beautiful and sustainable place to live in.

Saint-Gobain in the UAE includes some of the best-known and respected companies in the construction sector including: Gyproc, Weber, KIMMCO-ISOVER, Glass International, Vetrotech, Sage Glass, Solargard, Saint-Gobain Performance Plastics, Abrasives, Adfors, and Ecophon.

€42.6 billion in sales in 2019

More than 170,000 employees, located in 70 countries

Committed to achieving Carbon Neutrality by 2050

For more information about Saint-Gobain, visit www.saint-gobain.com and follow on LinkedIn <https://www.linkedin.com/company/saint-gobain-uae>