

Press Release

For immediate dissemination

Mahindra Lifespaces® and The Energy and Resources Institute renew commitment to green building research

Launch guidebooks and toolkits to drive wider adoption of resource-efficient practices in India's real estate and construction industry

Mumbai/Delhi, November 22nd, 2021: Mahindra Lifespaces® ('MLDL'), the real estate and infrastructure development arm of the Mahindra Group, and The Energy and Resources Institute ('TERI') today published key findings from five years of research on resource-efficient buildings, materials and technologies tailored to Indian climates and conditions. Led by a team of experts at the *Mahindra-TERI Center of Excellence (CoE)*, a first-of-its-kind joint research initiative between Mahindra Lifespaces® and TERI, these findings comprise guidebooks and toolkits that were launched in the presence of **Shri Durga Shanker Mishra, Secretary, Ministry of Housing and Urban Affairs (MoHUA), Government of India** earlier today. Mahindra Lifespaces® and TERI also announced the commencement of Phase-2 of research efforts at the CoE, which will continue to focus on developing science-based solutions for India's construction industry.

Delivering the keynote address at the event, **Shri Durga Shanker Mishra, Secretary, Ministry of Housing and Urban Affairs (MoHUA), Government of India** reiterated the importance of collaboration between industry and researchers to develop integrated solutions for all aspects of sustainability, efficiency and comfort in the built environment. He added that the state-of-the-art Mahindra-TERI Centre of Excellence is a commendable step towards making available credible data to support the development of resource-efficient buildings and homes that protect the environment, and enhance quality of life for users.

Focus areas of research at the Mahindra-TERI CoE	Benefits/Application
Standardisation and measurement of building materials: <ul style="list-style-type: none"> • More than 150 new and existing materials have been tested for their thermal properties. • Online, open-source database and tool developed to assess the thermo-physical properties of various walling and roofing materials and assemblies. 	<ul style="list-style-type: none"> • Makes available validated data on materials to build thermally comfortable buildings • Supports reduced energy consumption in buildings • Enables improved user comfort and wellbeing
Building envelope studies: <ul style="list-style-type: none"> • Wall and roof insulation • Sky scanner and solar monitoring unit installed – first-of-its-kind study to monitor sky conditions in Gurugram • Fenestration systems 	<ul style="list-style-type: none"> • Generates realistic simulations required to predict sky conditions, daylight use, and energy use patterns inside buildings • Aids in the design of buildings and homes that can use maximum natural light
Thermal and visual comfort studies: <ul style="list-style-type: none"> • Published thermal comfort and daylighting systems guidelines • Developed <i>Eco-Niwas Samhita Design Aider Tool</i> to ease the implementation of India's Energy Conservation Building Code (ECBC) for residential buildings 	Aids in the design and construction of energy-efficient homes and buildings

<p>Water conservation and management in the built environment:</p> <ul style="list-style-type: none"> • Launched water sustainability assessment reports for Gurugram, Pune and Chennai • Conducted 'rapid water audits' • Developed web-based 'Rainwater Management and Design Calculator' for storage and groundwater recharge 	<p>Helps identify areas for improving water efficiency in buildings, homes and townships</p>
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Arvind Subramanian, Managing Director & CEO, Mahindra Lifespace Developers Limited, added, "With much of India's future building stock yet to take shape, the real estate industry can play a critical role in meeting our country's Net Zero goals and SDG commitments, while at the same time crafting buildings designed for superior user comfort and well-being. We are delighted to continue our partnership with TERI to support the widespread adoption of resource-efficient design and construction practices. The Mahindra-TERI Centre Excellence will continue to work towards bridging the gap in publicly available data, tools and guidelines to support the development of green buildings in India."

In her opening remarks at the launch event, **Dr. Vibha Dhawan, Director General, TERI**, said, "The Mahindra-TERI CoE exemplified our focus on sustainability beyond just business-towards creating a resilient and livable ecosystem empowering a transformative 'greener urban future' across India's built environment."

Welcoming the esteemed dignitaries, **Mr. Sanjay Seth, Senior Director, TERI**, emphasized "That the collaborative joint initiative has created a platform for validated information on materials, technologies and occupant comfort pertaining to the built environment, with the underlying principles of "Greener yet Cheaper" built spaces."

The event also saw the kick-off for the project "**Multi-pronged Approach to Promote Use of Energy Efficient Glazing in Indian Context**" This project is envisaged under the aegis of MoU signed between TERI and Glazing Society of India (GSI) in February 2021.

In his special address, **Mr. A.R. Unnikrishnan, Chairman, GSI**, said, "It is essential to increase the awareness, build simplified tools and train the entire construction value chain for the right selection and use of energy efficient glass in buildings as per the Indian energy codes and standards. Initiating this exercise from Affordable housing would be an ideal platform to showcase the increased energy efficiency of buildings with the use of right glass and to ascertain the occupant comfort. Today's TERI – GSI project kick off would provide a larger momentum and benefits to the consumers in understanding and selecting the energy efficient glass for the buildings".

Research at the Mahindra-TERI CoE is aligned to multiple Sustainable Development Goals (SDG) adopted by the United Nations – SDG 13 on climate action; SDG 7 on clean and sustainable energy; and SDG 6 on sustainable water use. The Mahindra-TERI CoE has generated interest from researchers, students, government institutions, academia, and industry globally. The University of New-South Wales, Sydney, has signed an agreement with TERI for testing the thermal properties of materials developed in its research lab at the CoE. Industry partners such as Asahi India Glass Ltd. (AIS) will help augment the testing capabilities of the Mahindra-TERI CoE with equipment for testing transparent materials such as glass.

The Mahindra-TERI research lab in Gurgaon is a SVAGRIHA 5-star rated facility, accredited by the National Accreditation Board for Testing and Calibration Laboratories (NABL).

About Mahindra Lifespace Developers Ltd.

Established in 1994, Mahindra Lifespace Developers Ltd. ('Mahindra Lifespaces') brings the Mahindra Group's philosophy of 'Rise' to India's real estate and infrastructure industry through thriving residential communities and enabling business ecosystems. The Company's development footprint spans 27.4 million sq. ft. (2.5 million sq. m.) of completed, ongoing and forthcoming residential projects across seven Indian cities; and over 5000 acres of ongoing and forthcoming projects under development/management at its integrated developments/industrial clusters across four locations.

Mahindra Lifespaces' development portfolio comprises premium residential projects; value homes under the 'Mahindra Happinest®' brand; and integrated cities and industrial clusters under the 'Mahindra World City' and 'Origins by Mahindra' brands respectively. The Company leverages innovation, thoughtful design, and a deep commitment to sustainability to craft quality life and business growth.

The first real estate company in India to have committed to the global Science Based Targets initiative (SBTi), all Mahindra Lifespaces' projects are certified environment friendly. With a 100% Green portfolio since 2013, the Company is working towards carbon neutrality by 2040 and actively supports research on green buildings tailored to climatic conditions in India. Mahindra Lifespaces® is the recipient of over 80 awards for its projects and ESG initiatives.

Learn more about Mahindra Lifespaces® at www.mahindralifespaces.com

About Mahindra

Founded in 1945, the Mahindra Group is one of the largest and most admired multinational federation of companies with 260,000 employees in over 100 countries. It enjoys a leadership position in farm equipment, utility vehicles, information technology and financial services in India and is the world's largest tractor company by volume. It has a strong presence in renewable energy, agriculture, logistics, hospitality and real estate.

The Mahindra Group has a clear focus on leading ESG globally, enabling rural prosperity and enhancing urban living, with a goal to drive positive change in the lives of communities and stakeholders to enable them to Rise.

Learn more about Mahindra on www.mahindra.com / Twitter and Facebook: @MahindraRise/ For updates subscribe to <https://www.mahindra.com/news-room>

About TERI

The Energy and Resources Institute (TERI) is an independent, multi-dimensional organization, with capabilities in research, policy, consultancy, and implementation. It has pioneered conversations and action in the energy, environment, climate change, and sustainability space for over four decades.

The institute's research and research-based solutions have had a transformative impact on industry and communities. Headquartered in New Delhi, it has regional centers and campuses in Gurugram, Bengaluru, Guwahati, Mumbai, Panaji, and Nainital, supported by a multi-disciplinary team of scientists, sociologists, economists and engineers, and state-of-the-art infrastructure.

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