



ONLINE DISCUSSION ON THERMAL ENERGY RECUPERATION FOR SUSTAINABILITY

Organised on the 8th of February 2024, this online discussion gathered selected participants across Europe, including industry representatives from Trane Technologies and ten Scientix Ambassadors.

Amid the growing global awareness of environmental concerns, Trane Technologies' experts shared their engagement focused on the value of thermal energy recuperation, which refers to the use of heat energy that is released from some industrial processes and would otherwise dissipate into the immediate environment unused.

Educators were invited to participate in a meaningful discussion to shed a light on the impactful initiatives occurring within their respective educational institutions and local communities, and to offer recommendations on how industry can support education.

PREMIUM PARTNERS



GENERAL PARTNERS



More information: stemalliance@eun.org

STAKEHOLDERS



2 EXPERTS

Erik van Oossanen is the EMEA Senior Leadership Team of Trane Technologies, as Product Portfolio Leader of Applied Chillers and Heat pumps. In this role, he is responsible for the development of Trane's Applied Product Portfolio, anticipating the actual and future market requirements. During his entire career, care for Sustainable solutions, and connected to this, the reduction of the Energy intensity of the World, has been his prime objective.

As a professional in supporting HVAC solutions and services, **Hugues Depré** is passionate about delivering sustainable heating and cooling solutions to customers and hopes contributing to a better environment for future generations. Being a seasoned professional with a solid energy engineering and HVAC control background and a strong team player, he is experienced in supporting innovative energy efficient heating and cooling solutions.



10 TEACHERS / 9 COUNTRIES

Vasiliki Tomara, Secondary school teacher, **Science, Greece**

Avgoustinos Tsaousis, Secondary school teacher, **Math and Physics, Cyprus**

Natalija Budinski, Head of School, **Math, Serbia**

Nikola Delevski, Secondary school teacher, **Science and Physics, North Macedonia**

Ida Coppola, Secondary school teacher, **Technology, Italy**

Carlos Cunha, Secondary school teacher, **Physics and Chemistry, Portugal**

Filimon Diamantidis, Secondary school teacher, **Technology, Greece**

Roberta Trapani Maggi, Head of Department Digital Literacy, **Science and Technology, Malta**


Vesna Lampić, Kindergarten teacher, **Transdisciplinary STEM, Croatia**

Sezai Ogulluk, Vocational Highschool teacher, **Technology, Turkey**



KEY TAKE-AWAYS

CHALLENGES




Limited Funding: Schools struggle to invest in sustainable infrastructure, technology, and educational materials due to limited funds.

Outdated Infrastructure: Old school buildings and lack of energy-efficient features make it difficult to implement sustainability measures.

Curriculum and Workload Issues: Time constraints, heavy workloads, and a lack of expertise can impede the integration of sustainability into teaching.

Parental Involvement: Busy schedules and commitments make it tough for parents to actively participate in sustainability efforts.

NEEDS



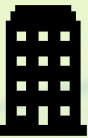
Access to Resources: Ready-made materials and practical strategies for teaching sustainability, including hands-on activities and real-world examples.

Technology Integration: Familiarity with digital tools, including AI, to enhance sustainability education.

Community Engagement: Partnerships with industry professionals and STEM experts to provide mentorship and resources.

Practical Experience: Opportunities for teachers and students to gain real-life experience and case studies in sustainability education.

HOW CAN TRANE TECHNOLOGIES SUPPORT EFFORTS TOWARDS SUSTAINABILITY IN EDUCATION



Innovative Solutions: Providing tailored technical solutions to efficient energy consumption.

Professional Development: Support training and courses for teachers to promote sustainable solutions.

Enhancing Education: Improving learning environments, reducing operational costs in schools, and promoting quality education.

Community Support: Backing local projects promoting sustainability, fostering positive community relationships.

WANT TO LEARN MORE?

You can find the presentation from the event, reading materials and other related links below:

1. [New heat pump technology enables reuse of waste heat from cooling systems](#)
2. [Trane Heating. Naturally - Youtube video](#)
3. [HVAC Technologies in Applications - Youtube video](#)
4. [Where STEM education and building a sustainable world come together - webinar](#)
5. [Online discussion on Thermal energy recuperation ppt](#)
6. [Background notes](#)

Contact

Luigi Prisco, STEM Alliance support coordinator (luigi.prisco@eun.org)

Agueda Gras-Velazquez, Head of Science education department
(agueda.gras@eun.org)

