



## Press Release

### **i-TES, completes 1,4 million capital increase led by EUREKA! Venture SGR together with Tech4Planet, CDP Venture Capital SGR's National Technology Transfer Hub.**

Milan 29<sup>th</sup> May 2023 - **i-TES**, a *deep-tech* startup that develops innovative **thermal storage** solutions, announces the conclusion of a new €1.4 million funding round.

The joint investment effort is led by EUREKA! Venture SGR through "Eureka! Fund I - Technology Transfer", together with CDP Venture Capital SGR through Tech4Planet, the National Hub for Technology Transfer focusing on Sustainability, set up to promote market access and the growth of new startups conceived within research labs, primarily in energy-tech, circular economy, sustainable manufacturing, intelligent mobility, and water management domains.

The company operates within the 2i3T Business Incubator and Technology Transfer of the University of Turin, and focuses on developing thermal storage batteries with phase change materials (PCMs) and thermochemical materials (TCMs). These advanced materials exploit the physical phenomenon of change of state to accumulate and release large amounts of energy. Essentially, they are able to absorb and release large amounts of heat when they pass from one physical state to another, e.g. from the liquid to the solid state and vice versa.

Despite considerable theoretical and lab-scale studies have investigated the use of PCM in thermal storage applications, PCM-based devices are not yet commonly used. Indeed, the relatively low thermal conductivity of most PCMs limits their power density and overall storage efficiency. To achieve both high power density and cooling capacity, PCMs with both high latent heat and high thermal conductivity are required. Moreover, cooling capacity is not an intrinsic property of the material and is highly dependent on geometry, boundary conditions, and temperature cycles.

"i-TES' strong competencies in the field have enabled the development of high-performance PCM thermal batteries. We've optimised key parameters like latent heat and thermal conductivity, enabling the deployment of these devices in practical applications," says **Michele Santovito**, Co-founder and CEO. He further reveals, "The new financial resources will be used to expand the customer portfolio by strengthening the facilities and the team, with new competencies related to production and commercialisation of products, and above all to invest in the technological development of new products such as thermochemical materials (TCM)."

"Another class of materials that is particularly interesting for the development of i-Tes' business is that of so-called thermochemical materials", adds CEO **Noemi Muscarà**, responsible for R&D, keeps saying "These materials no longer exploit a physical change of state but a chemical process, i.e. a hydration/dehydration reaction, through they acquire/release



thermal energy. Unlike PCMs, TCMs is characterised by higher energy densities and lower expected material acquisition costs compared to PCMs. Furthermore, it does not disperse heat over time, allowing for long-term seasonal storage and on-call heat supply in an on/off mode."

A2A has decided to carry out a pilot installation at its the district heating plant in Brescia. The innovative prototype will make it possible to develop distributed thermal storage at the substations of district heating networks, using thermal battery technology with phase change materials.

*The investment in i-TES, thanks to our partner Eureka!, once again underscores A2A's commitment to creating industrial synergies between the Group and the startups in the portfolio of our Corporate Venture Capital program"- comments **Patrick Oungre**, A2A Group Head of Innovation, CVC and Digital Hub. "The experimentation we are conducting at our plant in Brescia to assess the benefits in terms of energy efficiency, is part of the broader innovation strategy to help achieve the energy transition and circular economy objectives of our strategic plan."*

The application experience developed in recent years in the field of thermal storage thanks to PCM batteries and the in-depth knowledge of chemistry, supported by the proximity and contacts of the **Chemistry Department of the University of Turin**, will enable the team to have a solid technological base, allowing them to gain a significant competitive advantage in the field of thermal storage.

**Cristina Prandi**, Vice-Rector for Research-University of Turin, says, *"The University of Turin strongly believes in and supports the entrepreneurial initiatives of young people who plan to launch innovative start-ups, with the aim of promoting the realization of technology transfer projects based on scientific knowledge. The growth of i-TES and its affirmation in deep-tech is confirmation that the sharing of knowledge, skills and resources between academic and entrepreneurial worlds is a key strategy to foster development and innovation within a territory."*

*" i-TES' technologies represent a very interesting solution to address the energy storage emergency and to respond more generally to the challenges of the energy transition; Eureka! Fund's investment in i-TES is particularly in line both with the objectives we have set for ourselves in terms of sustainable finance and with the current context of energy crisis, rising energy prices and diversification of the energy source mix. Comments **Stefano Peroncini**, Managing Director of EUREKA! Venture SGR.*

**Massimo Gentili**, Partner of Eureka! Fund adds, *"Thermal storage is a thriving field of research and offers a lot of opportunities to face the challenges of electrification and renewable energy. i-TES' thermal batteries are compact, in fact they occupy 1/3 the volume of a classic water system, and they are modular, a feature that makes it easy to achieve energy demand, as they do not require special handling for installation and can be integrated into both existing and new systems.*



*Thanks to these features, they can be used in multiple applications, including district heating, renewable energy sources, TLC radio base station air conditioning systems, and waste heat recovery in industrial processes".*

*"i-TES is an excellent example of the path we want to support through Tech4Planet, the National Technology Transfer Hub dedicated to Environmental Sustainability that we have launched as CDP Venture Capital just over a year ago: top-quality university research in a strategic sector such as energy storage, accompanied towards company foundation and towards the market, meeting specialized investors such as Eureka Venture and leading industrial partners capable fully espousing the team's business objectives, to aim for national and international growth." **Claudia Pingue, Head of the Technology Transfer fund at CDP Venture Capital SGR**, comments "Investing in technology transfer by bringing together the players involved to create value is one of the objectives of our strategic plan."*

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EUREKA! Venture SGR and CDP Venture Capital SGR were assisted by the law firm L&B & Partners Avvocati Associati, with a team composed, for corporate aspects, of Partner **Davide Peloso**, Managing Associate **Genny Muccardi** and Junior Associate **Umberto Biga** and, for aspects related to industrial and intellectual property law, of Partner Valentina Bonomo and Counsel Elena Ronda.

Instead, the Company and the Founders of i-TES were assisted by **Mario Donadio**, Partner of the law firm *Leading Law*. The notarial aspects of the transaction were followed by **Stefania Anzelini**, Associate Notary of the Milan Notary Firm.

#### **i-TES Srl**

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#### **EUREKA! Venture SGR**

Independent venture capital firm licensed by the Bank of Italy and focused on *deeptech investments*, i.e. deep science investment and digital tech investment. The company manages more than €100M: the first Alternative Investment Fund, "**Eureka! Fund I – Technology Transfer**," was launched in 2020 and invests in proof-of-concept, spin-offs, startups and companies aimed at exploiting the results of Italian scientific research activity in the field of Advanced Materials and more generally Materials Science and Engineering. The second Fund, "**BlackSheep Fund**" launched in 2021, invests in digital technologies such as AI and big data applied to the MadTech (Marketing & Advertising) sector.

For more information: <https://www.eurekaventure.it>.



### **CDP Venture Capital SGR**

CDP Venture Capital is an asset management company (70% CDP Equity and 30% Invitalia) with more than €3 billion in resources under management. It aims to make Venture Capital a cornerstone of the country's economic development and innovation, creating the conditions for an overall and sustainable growth of the Venture Capital ecosystem. It operates with a series of funds that aspire to support startups in all their life stages, making both direct and indirect investments.

For further information: <https://www.cdpventurecapital.it>

### **Tech4Planet**

Tech4Planet is the National Technology Transfer Pole for Sustainability, which was created on the initiative of CDP Venture Capital through its Technology Transfer fund, in collaboration with the Politecnico di Milano, along with the Bari and Turin Polytechnics, to support the birth of new startups conceived within laboratories and research centers. CDP Venture Capital Sgr is anchor investor and promoter of Tech4Planet – Sustainable Hub, together with co-investors a2a and Iren.

For further information: <https://tech4planet.it>

### **A2A**

Listed on the stock exchange, with more than 13,000 employees, the Group manages the generation, sale and distribution of energy and the sale and distribution of gas, district heating, the waste cycle, electric mobility and smart services for cities, public lighting and the integrated water service. Sustainability is at the heart of A2A's strategy and to promote the country's growth and make the energy transition energy and the circular economy concrete realities, the business plan calls for 16 billion investments to 2030 in projects aligned to the ONU Agenda.

For further information: <https://www.gruppoa2a.it/it/home>

### **L&B Partners Avvocati Associati**

The Firm L&B Partners Avvocati Associati offers assistance and legal advice, extrajudicial and judicial, in multiple areas of law, with significant experience in managing complex investment and technology transfer transactions, including in venture capital and private equity contexts, in specific Industries, such as energy, infrastructure, deep tech, digital tech, life sciences & healthcare. The firm is part of the L&B Group and in synergy with the financial advisory firm, L&B Partners S.p.A., guarantees its clients effective assistance with both the legal and business profiles of each specific initiative.

For further information: [www.lbpartners.it/avvocati-associati/](http://www.lbpartners.it/avvocati-associati/)