ASX and MEDIA RELEASE

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Dotz Nano Develops an Innovative Sorbent for Direct Air Capture and Low CO_2 Concentration Industrial Emissions

Key highlights

- **Successful testing of a proprietary functionalized microporous sorbent, designed for direct air capture (DAC) and low-concentration CO_2 point-source applications;**
- **Validation testing conducted by third parties demonstrated high absorption capacity at very low CO_2 concentrations, good kinetics and low affinity to water;**
- **The new sorbent broadens Dotz's offering for a wide range of CO_2 partial pressures, ranging from DAC through low and high concentration point-source carbon capture applications;**
- **In-house sorbent production capacity has been scaled up to support demonstration at scale.**

Dotz Nano Limited (ASX: DTZ, OTC: DTZZF/DTZNY, "Dotz" or "Company"), a leading developer of innovative climate and industrial nanotechnologies, is pleased to announce the successful development of a new innovative functionalized microporous sorbent with ideal features for direct air capture (DAC) and low-concentration CO_2 industrial point-source applications.

Recent tests conducted by Dotz's development partner, SINTEF[1], confirmed that Dotz's new surface-modified polymeric sorbent demonstrates exceptional adsorption capacity at very low CO_2 concentrations, such as air with 400 PPM CO_2. The tests also indicated excellent sorbent kinetics and low affinity for moisture.

Dotz CEO Mr. Sharon Malka stated, "Our new functionalized sorbent is specifically designed to overcome the technical and economic challenges typically associated with capturing CO_2 at low concentrations. The sorbent's unique physical, chemical and mechanical characteristics make it highly suitable for low CO_2 partial pressure gas streams including capturing CO_2 from the atmosphere (DAC).

"This development broadens our reach in the carbon management space and opens new opportunities in low-CO_2 concentration industries and it strengthens our position in the DAC space, which is set to play a crucial role in global climate goals."

The functionalized polymeric sorbent, is a proprietary surface-modified, microporous polymeric-based sorbent. It has been designed to maximize its sorption properties, yielding a superior adsorbent material, specifically tailored for efficient capture of CO_2 in very low concentrations including DAC and low-concentration CO_2 industrial emissions. The sorbent is a high-purity form of polymeric-based

[1] *SINTEF is one of Europe's largest independent research organizations. SINTEF is Norway's largest research institute for energy and climate technology.*

sorbent, modified with functional amine groups that are responsible for its chemical sorption properties.

Dotz's functionalized sorbent validation tests conducted at SINTEF's labs, showed very high CO_2 absorption capacity. Adsorption capacity was greater than 3 mmol/g at 10 kPa (representing low CO_2 concentrations) and greater than 2 mmol/g at 400 ppm (representing direct air capture) as well as very high selectivity vs. nitrogen (N_2).

Dotz, in collaboration with SINTEF, is continuing optimization and testing efforts while engaging in discussions with potential partners for the co-development of sorbent-assisted CO_2 capture systems.

DAC technology is projected to play a critical role in mitigating climate change, with experts estimating that it may be necessary to capture up to 10 gigatons of CO_2 annually by mid-century[2]. The global DAC market is expected to grow from $57 million in 2022 to over $3.5 billion by 2030[3], offering Dotz significant growth opportunities.

The Company continues to advance its portfolio of proprietary nano-porous adsorbents aimed at further reducing the cost of CO_2 capture for both industrial emitters and DAC applications. The focus is on CO_2 capture from diluted flue gases and from the atmosphere by the use of innovative porous structured sorbents that can be regenerated at lower cost and with a lower energy penalty.

This announcement has been authorised for release by the Board of Directors of Dotz Nano.

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About Dotz Nano Limited

Dotz Nano Limited (ASX: DTZ) is a nanotechnology company developing innovative climate and industrial nano-technologies. The Company's primary focus is centered around ground-breaking carbon dioxide (CO_2) management technologies leading towards carbon-neutral future. The Company's proprietary carbon-based solid sorbents, offering an efficient and sustainable approach, facilitating industrial deep decarbonization.

To learn more about Dotz, please visit the website via the following link www.dotz.tech

Future Performance and Forward Looking Statements

This announcement contains certain statements that constitute forward-looking statements that may be identified by the use of terminology such as "may," "will," "expects," "plans," "anticipates," "estimates," "potential" or "continue" or the negative thereof or other comparable terminology. Examples of such statements include, but are not limited to, statements regarding the design, scope,

[2] Carbon Dioxide Removal - Center for Climate and Energy Solutions (c2es.org)
[3] Global Direct Air Capture Systems (DACS) Market Size/Share (globenewswire.com)

initiation, conduct and results of our research and development programs; our plans and objectives for future operations; and the potential benefits of our products and research technologies. These statements involve a number of risks and uncertainties that could cause actual results and the timing of events to differ materially from those anticipated by these forward-looking statements. These risks and uncertainties include a variety of factors, some of which are beyond our control. Forward looking statements, opinions and estimates provided in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward looking statements including projections, guidance on future earnings and estimates are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance.