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ASX:14D

14D PARTNERS WITH UKRAINIAN GOVERNMENT-APPROVED DRONE & UAV MANUFACTURER TO TEST SiNTL™ BATTERIES FOR THE DEFENCE SECTOR

Energia 2000 manufactures 72,000 military drones & UAVs per year for the Ukrainian Armed Forces (the world's largest military drone user) and will evaluate SiNTL-based batteries for adoption across its full UAV production

SiNTL silicon anodes have demonstrated specific capacity of 530 mAh/g against graphite's theoretical maximum of 372 mAh/g, and are targeting 600 mAh/g, directly relevant to extending drone range and payload capacity

KEY HIGHLIGHTS

- **FIRST DEFENCE PARTNERSHIP SECURED:** 14D has entered into a battery evaluation agreement with *Energia 2000*, a strategic Government-approved Ukrainian defence manufacturer with over 25 years' operational history supplying both domestic and international defence markets. *Energia* currently manufactures 72,000 drones & UAVs per year, with plans to scale production up to 360,000 units per year within 24 months through its subsidiary Spectech Industries.
- **UKRAINE IS THE WORLD'S LARGEST MILITARY DRONE & UAV MARKET:** Ukraine now produces over 4 million military drones per year¹ - more than all other NATO countries combined - and a circa 100-fold production increase in just three years¹. More than 500 drone manufacturers are active in Ukraine, with new drone technology often being developed and deployed within weeks rather than years.
- **LIVE BATTLEFIELD AND REAL-TIME WAR TESTING:** SiNTL-based batteries are proposed to be tested in live battlefield conditions in the Ukraine-Russia conflict. This real-world testing will provide real-time performance validation on SiNTL to other NATO-aligned nations, allied governments and Tier 1 defence primes.
- **SiNTL ADDRESSES DRONE RANGE & PAYLOAD CAPACITY ISSUES - CRITICAL REQUIREMENTS FOR DRONES & UAVs:** Battery capacity is a primary limiting factor for drone range, payload and mission duration. SiNTL has already beaten graphite on capacity — 530 mAh/g against graphite's 372 mAh/g — and the program is targeting 600 mAh/g. Drone range is critical in military conflicts; the Ukrainian Armed Forces have recently hit a major milestone, with their drones striking targets in St Petersburg in Russia² (~1200km from Kiev). This is the furthest distance that Ukrainian drones have reached in the Ukraine-Russia conflict. Extending drone range provides competitive advantage over enemy forces.
- **SiNTL TO BE TESTED ON A VARIETY OF UKRAINIAN DRONE & UAV PRODUCTS:** The program will cover fixed-wing UAVs, heavy multirotor systems and FPV drones, providing 14D with direct access to five active Ukrainian drone battalions.

¹ <https://uaconsulting.eu/2025/06/08/drone-production-in-ukraine/>

² <https://abcnews.com/International/wireStory/ukraine-targets-st-petersburg-after-putin-rejects-zelenskyy-133642660>

- **EARLY REVENUE POTENTIAL:** Successful testing with Energia 2000 is intended to be a gateway to full adoption into Energia 2000's drone & UAV production, representing a defined, milestone-driven pathway to a potentially fast-tracked and significant revenue stream.
- **NEAR-TERM EXPANSION OPPORTUNITIES:** 14D has continued to receive additional interest from other drone, UAV, satellite and related industry participants in its energy storage technology. Working with a Ukraine government-approved drone manufacturer is expected to materially raise 14D's industry profile and lead to additional collaboration and commercial opportunities in the near term. The Company looks forward to updating the market on further developments in due course.
- **14D POSITIONED TO HELP SECURE ALLIED BATTERY SUPPLY CHAINS:** China currently produces over 92% of global battery-grade graphite anodes³. SiNTL is a next-generation silicon battery anode technology developed by an Australian company (14D) and George Washington University (GWU) in Washington DC, that can potentially reduce Western supply chain reliance on China for battery components.

1414 Degrees Ltd (ASX: 14D) ("1414 Degrees" or the "Company") is pleased to announce it has entered into a SiNTL™ Battery Qualification Testing and Expert Services Agreement (the "Agreement") for its SiNTL silicon-anode battery technology across Ukrainian unmanned aerial vehicle platforms.

The Agreement is with LLC "RPE Energia 2000" ("Energia 2000"), an established Ukrainian Government-approved defence manufacturer, and LLC "Trecenta Systems" ("Trecenta Systems"), a Ukrainian project supervision and legal services firm that will act as program supervisor, custodian of the Qualification Samples, funds administrator and guarantor under the Agreement.

The program is being structured with Energia-2000 and Trecenta Systems to test SiNTL battery technology across multiple Ukrainian drone platforms, with the program intended to provide the Company with direct access to five active Ukrainian drone battalions for operational evaluation, subject to final documentation, logistics, security and operational approvals.

If successful, the program is expected to provide 14D with a significant commercial pathway into the European defence, drone, UAV and aerospace sectors.

Pictured below and following page - various drones and UAVs being used by the Ukrainian Armed Forces.



³ <https://arxiv.org/abs/2503.21521>



STRATEGIC IMPORTANCE

Battery performance is now a critical constraint in modern UAV operations. Range, endurance, payload capacity, charging time and battery reliability directly affect operational performance.

14D's SiNTL technology is designed to improve lithium-ion battery performance through silicon-anode material that can be integrated into existing manufacturing pathways.

The proposed Ukrainian program gives 14D the opportunity to move SiNTL from technical validation into a real-world drone and UAV application, with testing conducted through defence-sector partners operating in one of the world's most active drone environments and across multiple Ukrainian drone platforms.

This is a material step in 14D's commercialisation strategy. Rather than limiting SiNTL to laboratory or controlled field testing, the program is designed to generate operational data from drone platforms where battery performance is mission-critical. Battlefield testing is expected to fast-track the commercialisation process for the Company's technology and may position SiNTL ahead of competing battery technologies that remain limited to laboratory or non-combat field environments.

PROGRAM STRUCTURE

The testing program is intended to proceed in six stages:

1. SiNTL sample and cell validation;
2. Laboratory cycling and performance testing;
3. Battery pack testing;
4. Bench testing on selected UAV platforms;
5. Flight testing and operational assessment; and
6. Final qualification report and commercialisation review

Each stage will include a pass/fail review before the next stage commences. The initial program is expected to cost approximately A\$500,000, with the first stage expected to run over approximately two to six months, subject to regulatory approvals, logistics and battery availability.

If the technology does not meet the required performance thresholds at any stage, the results will be returned to 14D for technical review and improvement before further testing proceeds. Successful completion of the qualification program is intended to form the basis for Energia 2000's adoption of SiNTL-based batteries into its drone production.

COMMERCIAL MODEL

14D holds an exclusive global licence to the SiNTL technology and retains full commercial rights under that licence.





Subject to successful testing and further commercialisation agreements, 14D expects its commercial model to include:

- supply of SiNTL anode material;
- battery technology licensing;
- royalties on approved battery packs or platforms using SiNTL; and
- future supply arrangements with defence, UAV and aerospace customers.

Any future production, supply or distribution arrangements will be subject to separate binding agreements on these matters.

DRONE & UAV PRODUCTS USED FOR SINTL EVALUATION

The initial testing program plans to use the following drones and UAVs to test and evaluate SiNTL: fixed-wing UAVs, heavy multirotor bomber/interceptor systems and FPV (first person view) strike platforms. These are battery-sensitive applications where range, endurance, payload and charging performance directly affect operational value.

	
<p>AirPlast V1.0 fixed-wing UAV Fixed-wing platform for endurance and range testing</p>	<p>ST.10(6)B Hexa Bomber Heavy multirotor payload and endurance testing</p>
	
<p>ST.17FO Warlord Fiber Optics 30 km FPV strike platform and battery load testing</p>	<p>ST Dragon Mk.II / Mk.III Interceptor High-speed interceptor battery performance testing</p>

Together, these platforms provide the practical test set for SiNTL batteries across the principal UAV classes relevant to Ukrainian battlefield deployment.

PARTNER ROLES

- **14D** will supply the SiNTL technology, technical support and test battery inputs under its exclusive global licence.
- **Energia-2000** will provide access to Ukrainian UAV manufacturing and platform integration capability, including multiple drone platforms and operational pathways connected to five active Ukrainian drone battalions, subject to final approvals and security requirements.
- **Trecenta Systems** will coordinate and supervise the testing program, including test-unit control, reporting, field coordination and program administration.

NEXT STEPS

The parties are finalising the program documentation and testing framework. Subject to execution of final binding agreements, 14D expects the initial testing stage to commence following delivery of the required SiNTL test batteries and associated technical materials.

The Company will update shareholders as material milestones are achieved.

Commenting on the Agreement, 14D Executive Chairman Dr Kevin Moriarty said:

“This programme gives 14D a direct and practical pathway to test SiNTL™ in one of the most demanding battery environments in the world.

UAV performance is increasingly limited by battery range, endurance, charging time and reliability. SiNTL was developed to address precisely these challenges.

By working with Ukrainian defence-sector partners, we intend to generate the operational data needed to support future commercial discussions with defence, UAV and aerospace customers.

Importantly, 14D retains full control of the SiNTL technology and is positioning the programme around a scalable supply, licensing and royalty model.”

AUTHORISED BY:

Dr Kevin Moriarty, Executive Chairman on behalf of the Board of Directors

For investor enquiries or further information, please contact:

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ABOUT 1414 DEGREES LIMITED

1414 Degrees (ASX:14D) is advancing an integrated clean-energy and industrial decarbonisation platform spanning grid-scale storage, industrial heat, hydrogen and advanced battery materials.

The Company's strategy combines near-term infrastructure revenue with scalable technology commercialisation, underpinned by deep expertise in energy-dense silicon systems and materials engineering. 1414 Degrees owns the Aurora Energy Precinct in South Australia, a development-ready energy and industrial site spanning 16km² within the Upper Spencer Gulf Renewable Energy Zone. Aurora is designed for firming renewable electricity and co-located high-demand users, with grid access, development approvals and proximity to fibre infrastructure supporting global connectivity. The site is strategically positioned to support data centre operators and other energy-intensive industries requiring reliable, low-emissions power at scale. The Stage 1 140 MW / 280 MWh Battery Energy Storage System (BESS) represents a near-term revenue opportunity, with expansion potential aligned to customer demand.

Core Platforms:

SiNTL™: A silicon-enhanced anode material designed to increase lithium-ion battery energy density while remaining compatible with existing manufacturing processes.

SiBrick®: Silicon-based thermal energy storage media forming the foundation of the Company's long-duration energy storage systems.

SiBox® (Industrial Heat-as-a-Service): Long duration energy storage technology that converts low-cost renewable electricity into dispatchable high-temperature heat, supporting industrial decarbonisation across energy-intensive sectors.

SiPHyR®: A silicon-based methane pyrolysis reactor integrating thermal storage to produce low-emissions hydrogen and solid carbon using renewable energy sources.

1414 Degrees' technologies are unified by a single materials platform — leveraging silicon to store, convert and enhance energy across multiple sectors.

For more information, please visit www.1414degrees.com.au

Forward-looking statements

This announcement includes forward-looking statements which may be identified by words such as 'anticipates', 'believes', 'expects', 'intends', 'may', 'will', 'could', or 'should' and other similar words that involve risks and uncertainties. These forward-looking statements are based on the 1414 Degrees' expectations and beliefs concerning future events as at the date of this announcement. Forward-looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of 1414 Degrees, which could cause actual results to differ materially from such statements. 1414 Degrees makes no undertaking to update or revise the forward-looking statements made in this announcement to reflect any change in circumstances or events after the date of this announcement.