

Nexsen

Rapid, lab-grade accuracy
at the point of care

IPO Investor Presentation – September 2025



Nexsen Limited
ACN 655 182 497
Proposed ASX:NXX



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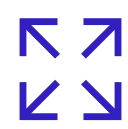
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On 29 August 2025, the Company released a prospectus (Prospectus) for the offer of fully paid ordinary shares in the capital of the Company (Shares) referred to in this Presentation, a copy of which can be accessed from the Company’s website at www.nexsen.bio. All offers of Shares for the capital raising referred to in the Presentation Materials will be made in, or accompanied by, the Prospectus. Investors should consider the Prospectus in deciding whether to acquire Shares and any person who wishes to apply for Shares must complete the application form that is accompanied by the Prospectus.

Rapid, lab-grade accuracy at the point of care

Nexsen is a nano-biotechnology company developing a next-generation biosensing platform that combines ultra-bright nanoparticles, high-affinity bioreceptors, and modular lateral flow architecture to deliver lab-quality diagnostics in a low-cost, user-friendly format.

Nano-technology company with proprietary biosensing platform



Scalable bio-sensing platform

Platform technology unlocking rapid development of multiple point of care and point of use diagnostic products with lab-grade accuracy



Patented and proprietary technologies

Proprietary elements enabling lab-grade diagnosis at the point of care and at the point of use

Government supporting commercialisation



Government & regulatory backing

Total grant support exceeds +\$10.9 million in project value providing significant leverage to Nexsen's cash outlays



Near term commercialisation

Clinical trials for Nexsen's first product, the GBS Rapid Sensor are expected to commence in Q4 2025

Developing a range of POC products for large global markets



Growing suite of products

Nexsen has multiple products under development targeting markets dominated by lab testing



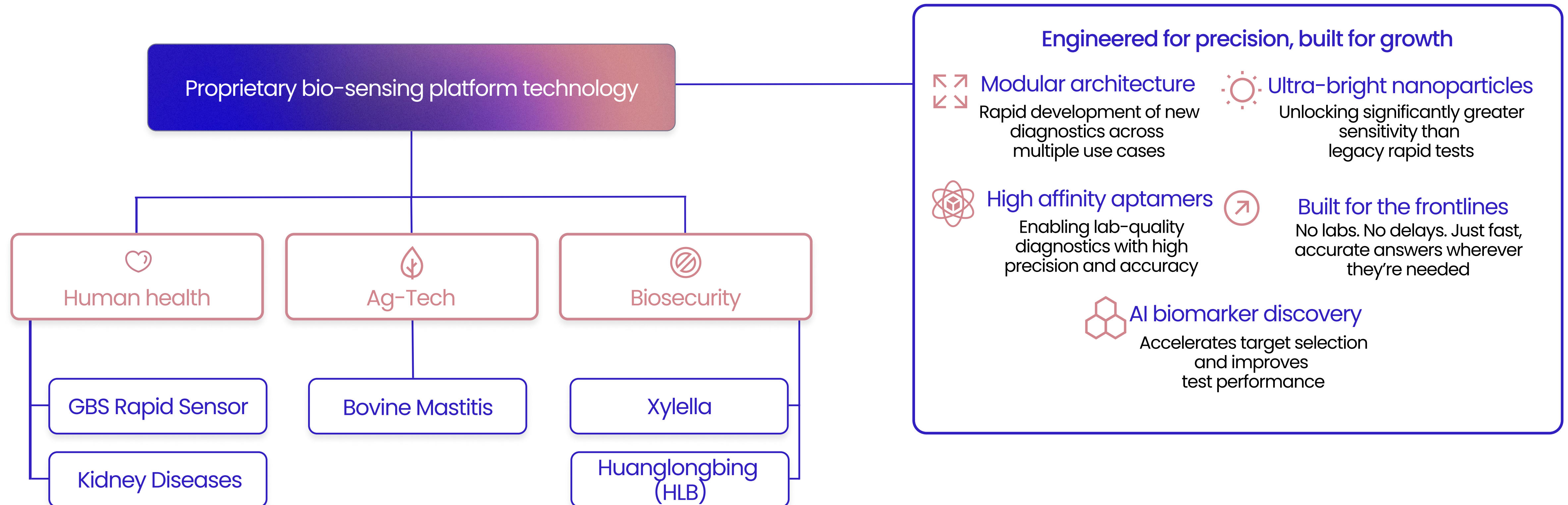
Targeting significant unmet needs

Targeting unmet needs across medtech and agtech with a focus on unmet needs with global markets



The versatile platform advantage & launchpad for high-impact point of care and point of use

Nexsen's platform is designed for real-world environments where speed, simplicity, and accuracy matter most. From maternity wards to homes, farms and border checkpoints, we're developing diagnostics and sensors that work wherever the challenge is.

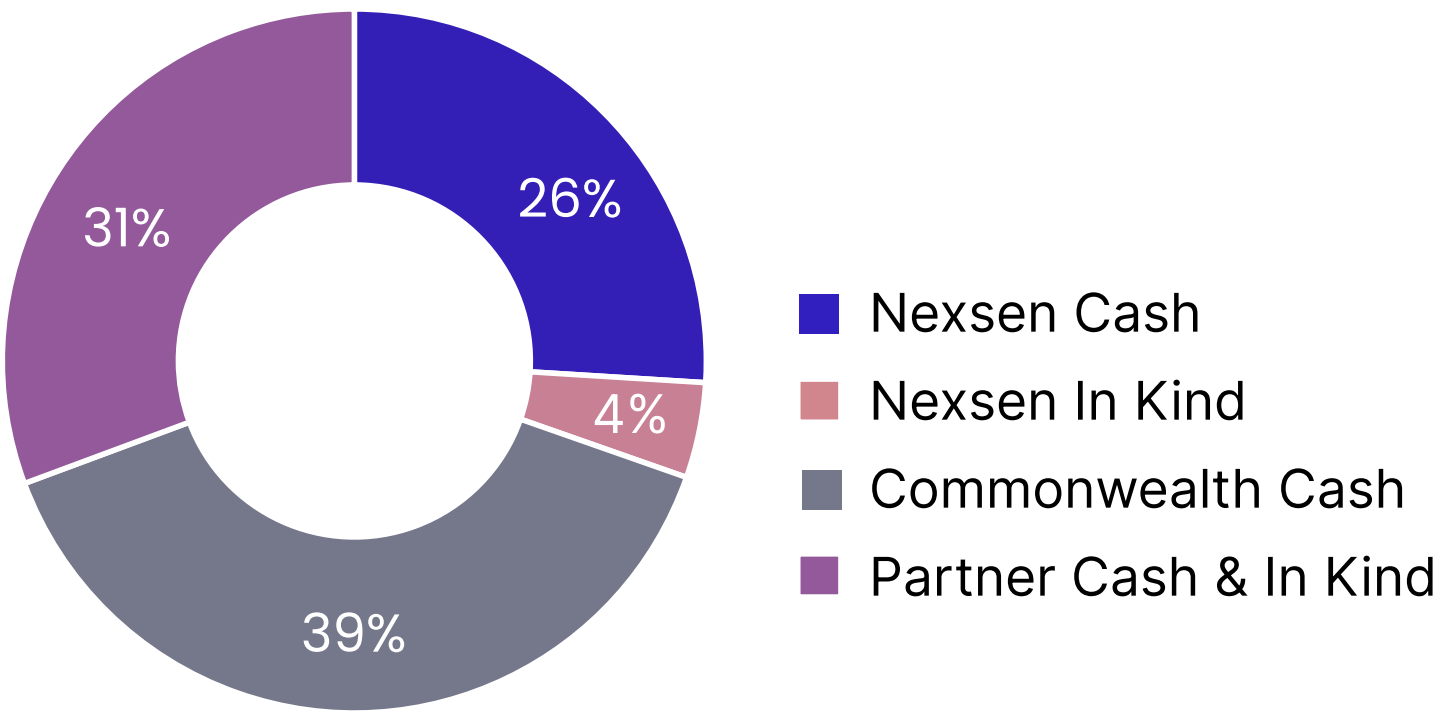


Partnering with world leading institutions with strong governmental support

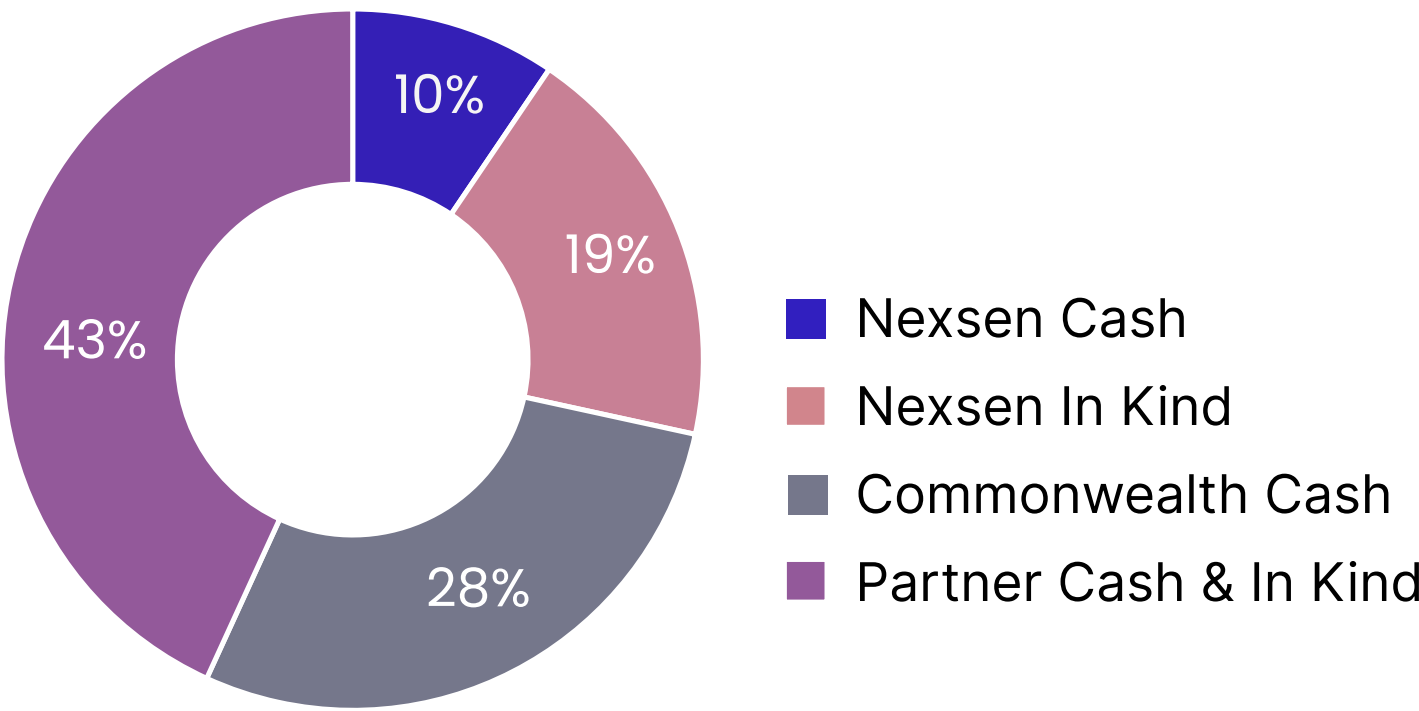
Nexsen has delivered significant non-dilutive funding with Australian Government support, generating significant leverage on its cash outlays for research.

\$10.9 million in non-dilutive grant project funding

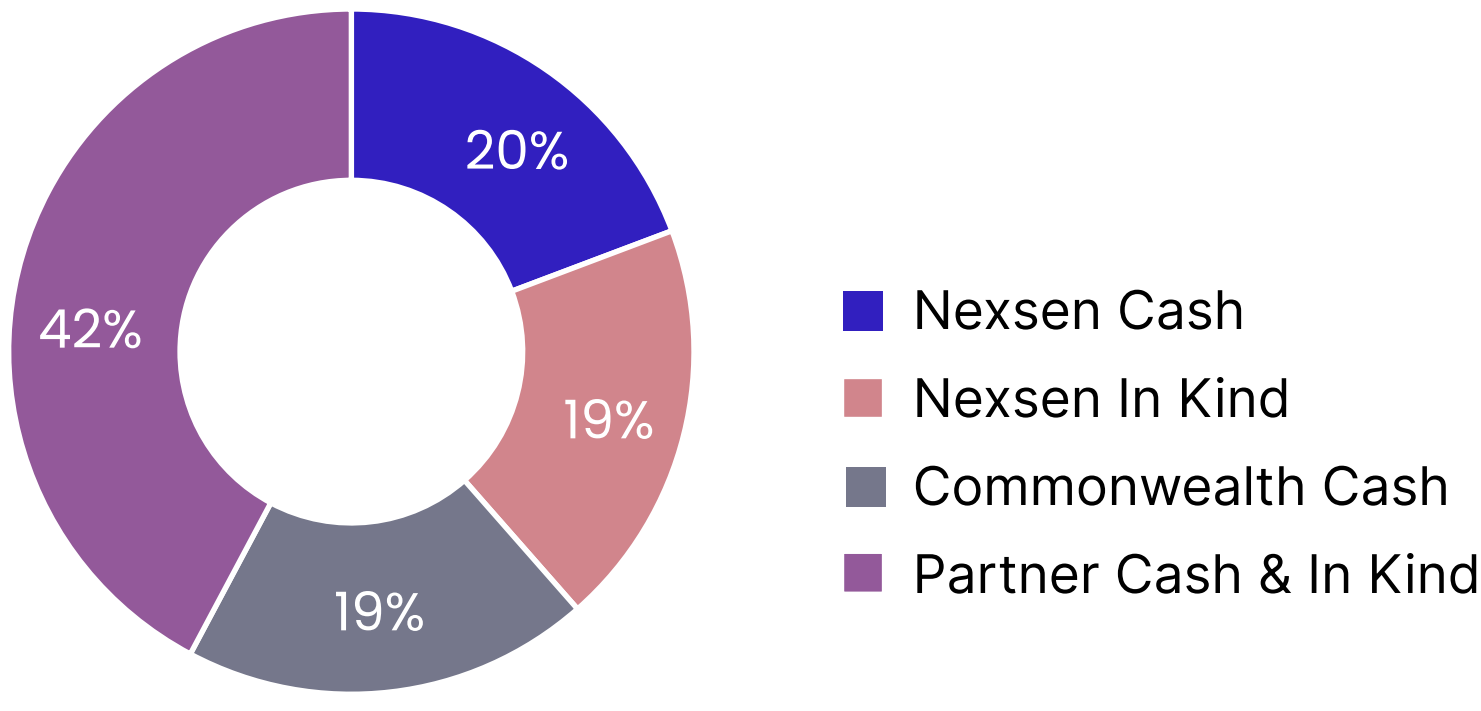
\$7.7 million CRC-P Project for GBS Rapid Sensor



\$1.6 million ARC Project for Biosecurity



\$1.6 million ARC MOBIUS Project for Bovine Mastitis



Key Government & research partners



// Nexsen is creating a “fighting chance against one of the leading causes of death and disability for newborns”; and

“The fact this technology also offers the potential to free up tens of millions of dollars within our healthcare system to help other Australians in need is just cherry on the cake” //

The Hon. Ed Husic, Minister for Industry and Science

Nexsen's first product commences clinical trials this year





Nexsen's GBS Rapid Sensor enables real-time detection of Group B Streptococcus bacteria (GBS) in expectant mothers at the point of care. Delivers lab-level sensitivity and specificity in minutes through a simple vaginal-rectal swab with results visible on the strip just like a pregnancy test or COVID test.

A preventable tragedy

Current screening for GBS is typically done weeks before labour – missing the window when colonisation is most likely and risk is highest. This gap leads to missed diagnoses, unnecessary antibiotic use, and preventable harm to newborns.



¹ World Health Organisation, Group B Streptococcus infection causes an estimated 150,000 preventable stillbirths and infant deaths every year, 5 November 2017

GBS Rapid Sensor advantages vs the current standard of care		
	Ease of use	A portable and easy to use device similar to a COVID test
	Lab-grade	Internal testing shows higher sensitivity than CE-marked competitor
	Rapid	Delivering lab-grade results in minutes not days enabling testing on day of labour instead of weeks before
	Scalable	Cost effective single use device not reliant on specialist equipment or labs

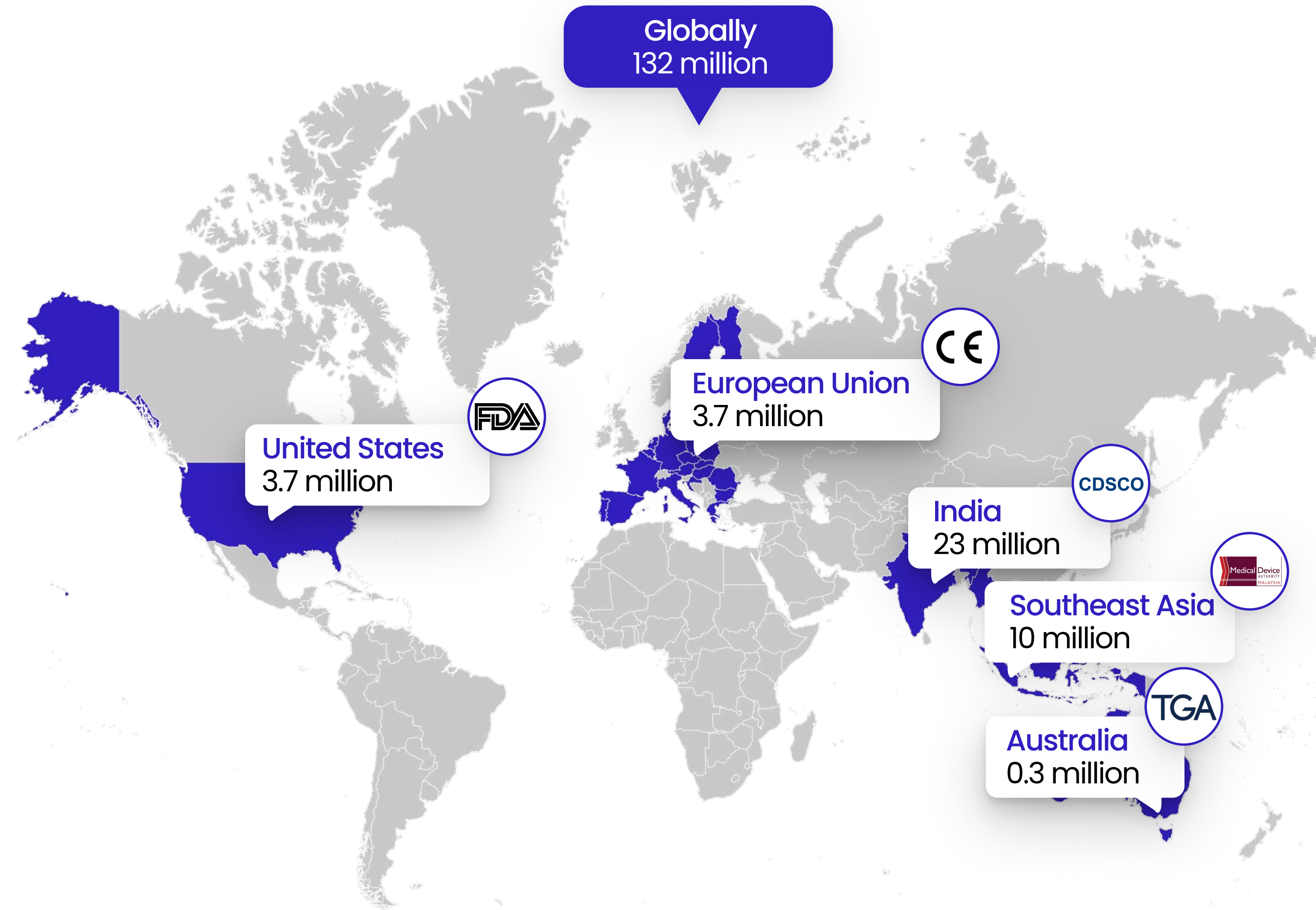
A significant global market with clear regulatory pathways

Nexsen's commercial strategy targets jurisdictions with the world's largest maternal health markets reimbursement pathways, and strong clinical readiness.

The test is engineered for global scalability, supporting adoption across both public and private health systems.

Commercial plan:

- Clinical trials for the GBS Rapid Sensor begin in Q4 CY2025 with Northern Health (Victoria), with HREC approval in place
- \$7.7m Aus Gov CRC-P project (incl. \$3m in direct Commonwealth cash) funds development, manufacturing, and clinical trials
- Strategic rollout across 5 initial target jurisdictions; United States, European Union, India, Southeast Asia (via Malaysia) and Australia pending regulatory approvals
- Standard of care expectation for GBS Rapid Sensor is two tests per pregnancy




Initial Target Markets – Number of births per year*

*United Nations World Population Prospects: The 2024 Revision (2024 Estimate)

A global diagnostic gap affecting over 700 million people

Chronic Kidney Disease (CKD) and Acute Kidney Injury (AKI) are two of the most prevalent and dangerous renal conditions globally. Together, they impact hundreds of millions, with the majority going undiagnosed or treated too late.

- 
- CKD & AKI present two significant global markets

 - 700,000,000 people affected by CKD³
 - AKI is seen in 30% of ICU admissions⁴

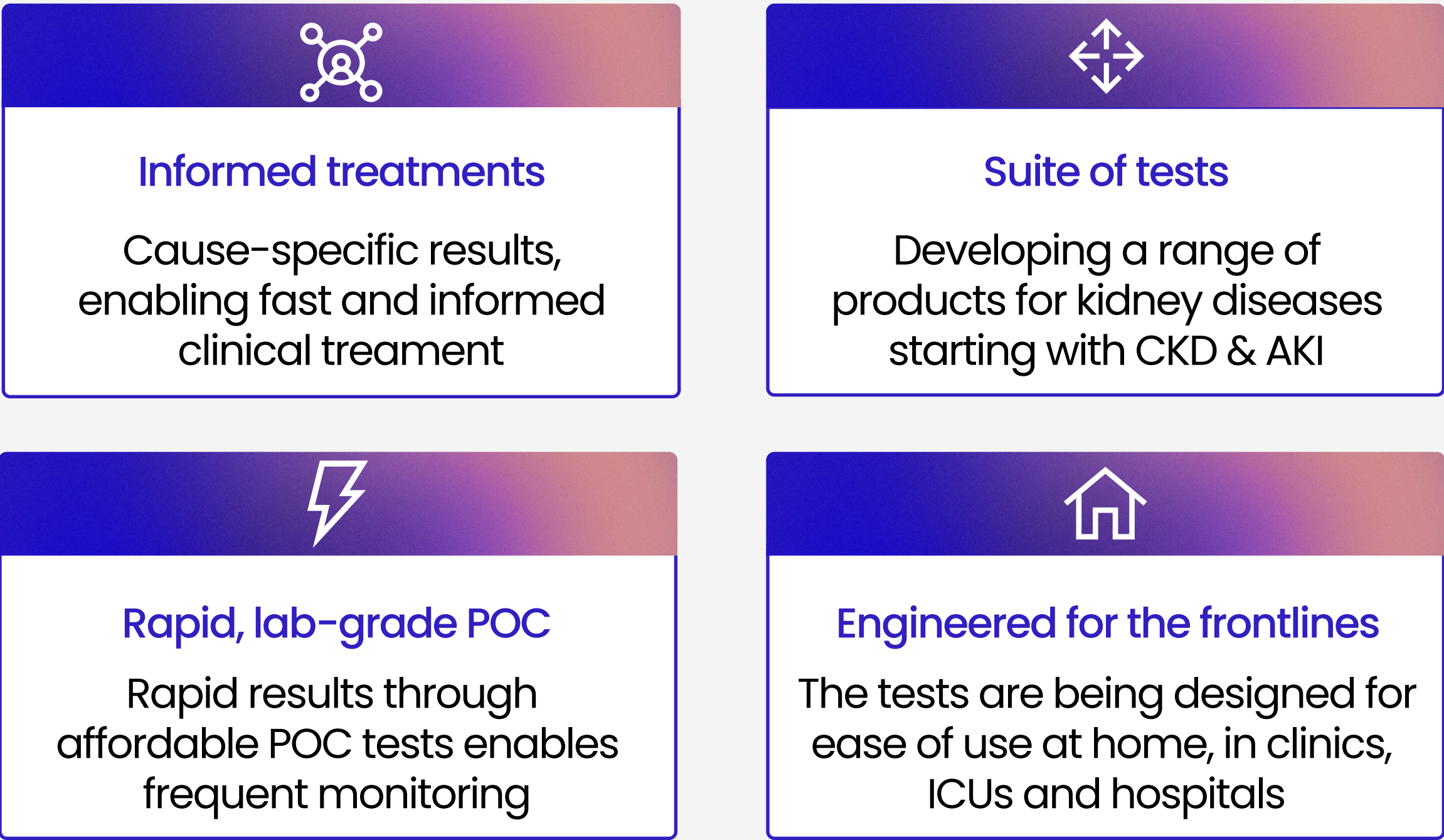
- 
- In need of innovation

 - No existing at-home monitoring available
 - Diagnoses often relies on delayed lab tests

³Francis et al., Chronic kidney disease and the global public health agenda: an international consensus, Nature Reviews Nephrology volume 20, pages 473–485 (2024)
⁴Goyal et al., Acute Kidney Injury, accessed from <https://www.ncbi.nlm.nih.gov/books/NBK441896/#:~:text=Epidemiology,Go%20to:>

Creating a broad product pipeline in an underserved space

Nexsen is targeting a suite of lateral flow tests for routine, decentralised screening for kidney diseases, beginning with CKD and AKI. Future products will expand into additional biomarkers and use cases.

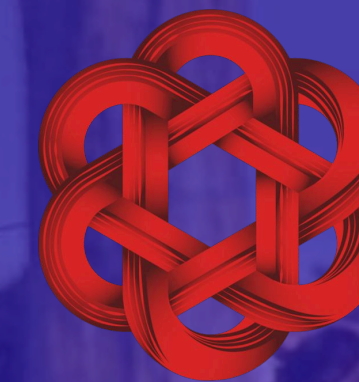


Bovine Mastitis

Tackling the global dairy industry's \$32 billion problem

Bovine Mastitis is one of the most widespread and costly diseases in agriculture. Nexsen is developing a low-cost, field-deployable diagnostic tools that enable fast, accurate detection on-farm, without the need for lab processing or specialist equipment

-  **The cost of Bovine Mastitis**
 - \$32B economic loss from reduced milk yield annually⁵
 - Globally impacts up to half of all dairy herds⁶
-  **In need of innovation**
 - Current on-farm tests are often **unreliable**
 - Lab-based testing **takes days**
 - Supported by a \$1.5 million ARC Industry Transformation Project



MOBIUS

ARC Research Hub for Molecular Biosensors at Point-of-Use



⁵The Cattle Site, accessed from <https://www.thecattlesite.com/focus/thermo-fisher-scientific/2335/bovine-diagnostics-how-much-does-mastitis-cost-dairy-producers-annually>

⁶Krishnamoorthy et al., Global and countrywide prevalence of subclinical and clinical mastitis in dairy cattle and buffaloes by systematic review and meta-analysis, Res Vet Sci. 2021

Biosecurity range

Equipping the frontline with defence tools for biosecurity threats

Biosecurity is central to protecting global health and agriculture from emerging threats. Nexsen’s diagnostics platform will provide rapid, portable testing that can be deployed at critical control points, enabling early detection and containment.

Targeting two initial products:



Xylella

An incursion of Xylella could cost the Australian horticultural industries up to \$11.1B⁷



HLB

Danger to the citrus industry which dropped production by 90% in Florida in the early 2000s from ineffective controls⁸


⁷DAFF, accessed from <https://www.agriculture.gov.au/abares/research-topics/biosecurity/biosecurity-economics/impacts-of-xylella-fastidiosa>
⁸47 NSW Dept of Primary Industries and Regional Development, Citrus Huanglongbing, 2024



A launchpad for solving global issues

Nexsen’s platform is built to respond quickly to global diagnostic challenges – using a modular sensor architecture and in-house AI to rapidly identify disease-specific biomarkers and develop targeted tests. It’s this lean and scalable approach that allows us to move fast, adapt to emerging needs, and create commercial value wherever fast, rapid diagnosis and sensors are needed most.

High-potential indicative future target indications



Dengue Fever

Critically active in roughly 90 countries with 7.6 million reported cases⁸



Gonorrhoea

82.4 million new infections in 2020 with many cases asymptomatic⁹



Sepsis (MRSA and others)

A global health-threatening concern resistant to antibiotic treatment in healthcare settings



Hand, Foot & Mouth Disease

A common infection with outbreaks in Asia infecting millions of children¹⁰

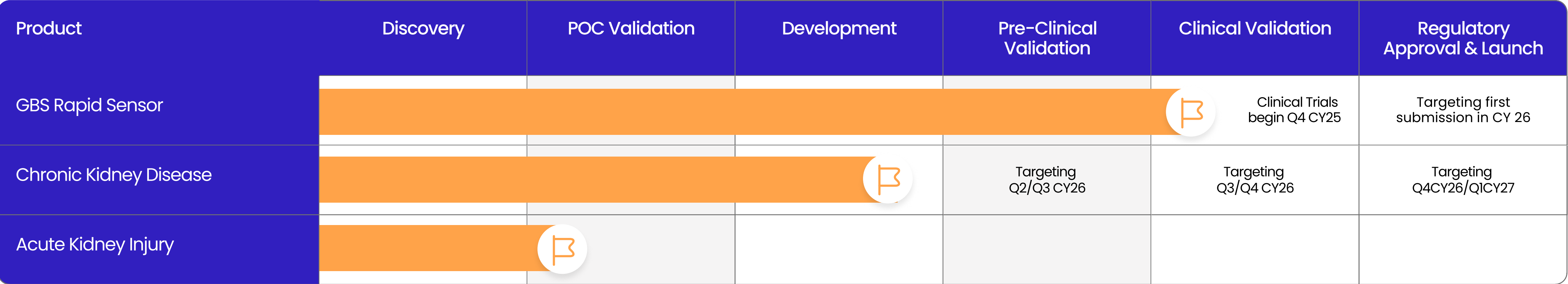
⁸World Health Organization. Dengue and severe dengue – Disease Outbreak News, 30 April 2024. Geneva: WHO.
⁹World Health Organization. Gonorrhoea (Neisseria gonorrhoeae infection) – Fact sheet. Geneva: WHO; 4 July 2024.
¹⁰ World Health Organization. (n.d.). Hand, foot and mouth disease (HFMD). World Health Organization.



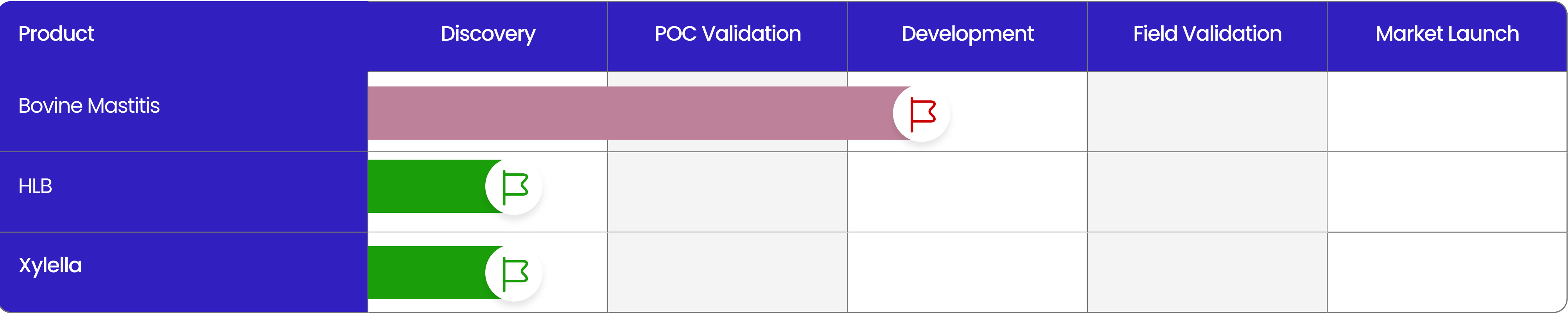
Timeline

Diversified product pipeline & commercial plan

Human health range



Biosecurity & ag-tech range



Regulatory pathway

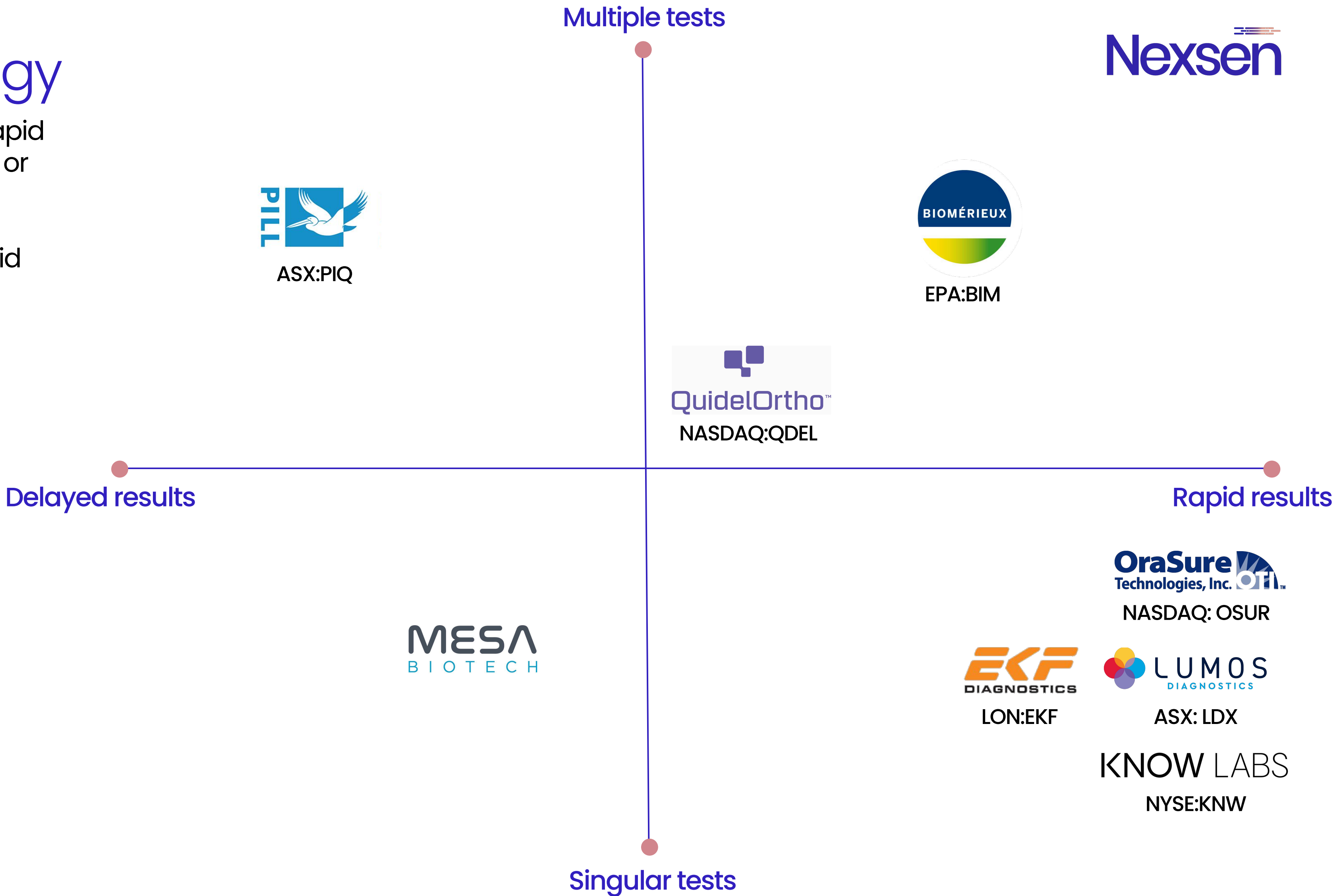


Refer to Forward Looking Statement Disclaimer

Nexsen's blue ocean strategy

The ASX offers no direct comparables with mixes of rapid point-of-care and lab-based and a single indication or multiple indications.

Nexsen breaks this mould by developing multiple rapid point-of-care diagnostics, creating a new market segment that doesn't currently exist.




Layered IP strategy to safeguard innovation

Nexsen employs a multi-layered IP strategy to protect its technology, brand, and competitive position. By combining patents, trademarks, proprietary materials, and trade secrets, we ensure our innovations are defensible, hard to replicate, and positioned for long-term value.




Patents

Protecting product innovations that can't be reverse-engineered



Proprietary Materials

Nanoparticles made in-house to safeguard formulations



Trademarks

Future Brand IP including StrepSure and VetSure protected



Trade Secrets

Key know-how kept as trade secrets



Raising \$6 million to \$8 million at an enterprise valuation of \$32 million

Capital Structure	\$6,000,000 raised	\$8,000,000 raised
Shares on issue	128,996,200	128,996,200
Public Offer (\$0.20)	30,000,000	40,000,000
Pre-IPO notes (\$0.10)	31,200,000	31,200,000
Shares at Listing	190,196,200	200,196,200
Management Performance Rights	10,000,000	10,000,000
Options ex \$0.30 exp 3-years	9,116,486	10,488,648
Options ex \$0.50 exp 3-years	3,500,000	3,500,000

Notable Shareholders	At IPO - Min Subscription
Mark Muzzin and associates	19.45%
Regal Emerging Companies Opportunities Fund	5.26%
RMIT	3.15%

Use of Funds	Minimum Subscription (\$)	Maximum Subscription (\$)
Existing cash reserves	\$200,000	\$200,000
Funds raised from the Public Offer	\$6,000,000	\$8,000,000
Total	\$6,200,000	\$8,200,000
Allocation of funds		
GBS Rapid Sensor Product Development & Clinical Studies, Approvals	\$1,080,000	\$1,350,000
GBS Rapid Sensor Commercialisation, Manufacturing, Marketing	\$585,000	\$720,000
Kidney Disease Diagnostic Product Development, Clinical Validation and Approvals	\$1,350,000	\$1,800,000
Bovine Mastitis Diagnostic Development, Field Testing, and Approvals	\$135,000	\$180,000
NexsenAI Biomarker Development Platform	\$45,000	\$70,000
Future Projects and R&D	\$900,000	\$1,250,000
Corporate and Administrative	\$900,000	\$1,210,000
Expenses of the Offers	\$500,000	\$620,000
Additional Working Capital & Contingency	\$705,000	\$1,000,000
Total	\$6,200,000	\$8,200,000

Refer to important information section



Team

Created by the world's leading minds in
nano bio-sensing research



World-class facility

Developed at the Sir Ian
Potter NanoBioSensing
Facility at RMIT University



Leading Professor

Led by Professor Bansal,
a world-renowned
scientific leader



Non-Dilutive Funding

Strong support from
Aus Govt and other
grant partners



RMIT partnership

Supported by a landmark
partnership with
RMIT University

Board of Directors



Mr Reece O'Connell
Executive Chairman

A highly regarded Fund Manager with over 15 years' experience in financial markets across Australia and the UK, specialising in biotechnology investment. As the Fund Manager at Summit Funds Management, he leads investments in small to mid-cap biotech companies.

Reece's deep sector expertise and commercial acumen have helped him build a strong track record of identifying and guiding breakthrough Australian biotechnology companies along their commercialisation journey.



Mr Mark Muzzin
Founder & MD

An accomplished executive with over 30 years of commercial leadership experience across Australian and international public and private companies. A deep expertise in commercialising university-developed intellectual property, particularly in nano biosensors and 2D materials, having worked with institutions such as Monash University, RMIT, and CSIRO. Mr Muzzin has a long-standing interest in bridging the gap between academia and market-driven innovation. Mr Muzzin is an Adjunct Industry Associate Professor of RMIT University and a member of the RMIT University's Industry Advisory Committee (Biology).



Dr Martina Mariano
Non-Executive Director

A biotechnology executive with over a decade of experience spanning academic, clinical, and commercial environments. She currently serves as COO of ASX-listed Singular Health Group.

With a PhD in Medicine and Pharmacology from the University of Western Australia, Dr Mariano has held leadership roles in research commercialisation, global partnerships, and software innovation. Her background includes hands-on expertise in molecular diagnostics, forensic genetics, and medical device commercialisation.



Mr Grant Pestell
Non-Executive Director

A commercial and corporate lawyer with extensive experience advising high-net-worth clients at both listed and private companies in the information technology, automation and robotics, biotechnology, resources, energy, and construction industries.

Grant advises public companies and directors on mergers and acquisitions, corporate governance, risk management, and strategic contract negotiations.



Mr Sonny Didugu
Company Secretary

A corporate lawyer and advisor with significant corporate advisory, company secretarial, and listed entity compliance experience.

He has previously held several senior executive and governance roles across a broad range of industry sectors and has acted for many listed and unlisted entities providing investor relations support, strategic management consulting, equity market transaction advisory as well as corporate compliance and governance advice.

Team Advisory Board



Prof. Vipul Bansal

Advisory Chair & Chief Innovation Officer

A globally recognised nano-biotech expert, and Fellow of the Royal Society of Chemistry, with over two decades of experience advancing diagnostics and biosensor innovation. He serves as Head of Research & Infrastructure at RMIT Chemistry Faculty and Director of the Sir Ian Potter Nano Biosensing Lab, leading pioneering work in nanomaterials, biosensing, and scalable manufacturing.

Vipul has built a global reputation for translating nanoscale science into practical solutions for health, agriculture, and environmental challenges.



Prof. Shekhar Kumta

Advisory Board Member

A globally recognised surgical oncologist & educator, Prof. Shekhar Kumta has 40 years+ of experience in orthopaedics, trauma, and musculoskeletal oncology. He pioneered joint-sparing surgery techniques in children and helped establish Hong Kong's Tissue Bank. A former Professor at The Chinese University of Hong Kong, he is now Professor of Surgery at the Northern Hospital, where he leads research and medical education initiatives.



Assoc. Prof. Prahlad Ho

Advisory Board Member

Chief Medical Officer at Northern Health and a senior clinical and laboratory haematologist with over 18 years of service. He has held key leadership roles across pathology, diagnostics and cancer services, and established Northern Health's thrombosis and clinical trials programs. A PhD recipient and Adjunct Professor at RMIT, he leads research in thrombosis and cardiovascular disease and serves as Principal Investigator on multiple clinical trials.

Northern Health



Mr Mark Muzzin

Advisory Board Member & Managing Director

An accomplished executive with 30+ years of commercial leadership across public and private companies. Mr Muzzin specialises in commercialising university-developed IP, particularly in nano biosensors and 2D materials, with experience at Monash, RMIT, and CSIRO.

He is an Adjunct Industry Associate Professor at RMIT and serves on its Industry Advisory Committee (Biology).



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Proposed ASX:NXN

For more information, please contact:

Nexsen Limited

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e: corporate@nexsen.bio
w: nexsen.bio

The Nexsen logo features the word "Nexsen" in a bold, sans-serif font, with a stylized graphic of three horizontal lines above the "x".

Lead Manager

Alpine Capital
Phil Cawood
p: +61 418 281 114
e: phil@alpinecapital.au

The Alpine Capital logo consists of a stylized orange mountain peak icon inside a circle, followed by the text "ALPINE CAPITAL" in a bold, sans-serif font.

Corporate Enquiries

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p: +61 2 9174 5388
e: NXN@reignadvisory.com

The Reign Advisory logo features a stylized crown icon above the word "REIGN" in a serif font, with "ADVISORY" in a smaller, sans-serif font below it.

Media Enquiries

Jane Morgan Management
e: info@janemorganmanagement.com.au

The Jane Morgan Management logo features the letters "JMM" in a large, serif font, with "JANE MORGAN MANAGEMENT" in a smaller, sans-serif font below it.