



VEYRA INSTITUTE FOR APPLIED SCIENCES

Annual Report 2025

Evidence into capability.

Veyra Institute for Applied Sciences (VIAS)
Calder Mesa Campus, Arenfield AR-4400
Published: January 2026 · Fiscal Year: 1 January – 31 December 2025
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Director's Foreword

This has been a year of consolidation and ambition in equal measure. Across our five divisions and fifteen research groups, the Veyra Institute demonstrated what becomes possible when rigorous science is paired with the discipline to translate results into real-world impact. I am proud to present our Annual Report for 2025.

In 2025, our researchers published 318 peer-reviewed articles, secured 47 new competitive grants totalling 28.4 million credits in new funding, and graduated 61 doctoral and master's students from the Veyra Graduate School. The Meridian HPC cluster delivered 2.1 million GPU-hours of research compute time, while our commercial services arm generated 9.7 million credits in services revenue, enabling reinvestment in infrastructure and fellowships.

The launch of Veyra Atlas — our pretrained materials-property prediction model — was the defining milestone of the year for our Software and AI Services group. Early adopters in the pharmaceutical and energy sectors reported screening throughput improvements of up to 40-fold. We expect Atlas to form the backbone of a new class of commercial engagements in 2026 and beyond.

I wish to acknowledge the dedication of every colleague who made this year possible: from the postdoctoral fellows who drive our research forward, to the professional staff who keep our facilities running with precision and care. The Institute is only as strong as the people who inhabit it.

We enter 2026 with expanded capacity, renewed purpose, and a commitment to the founding principle of this institution: that evidence, rigorously gathered and honestly reported, is the most durable form of capability there is.

Prof. Margarethe Valdez

Director, Veyra Institute for Applied Sciences
Arenfield, January 2026



Year in Numbers

The figures below represent consolidated totals for fiscal year 2025 (1 January – 31 December) across all divisions, facilities, and programs.

Metric	2025	2024	Change
Peer-reviewed publications	318	281	+13.2%
New competitive grants awarded	47	39	+20.5%
Total new grant value (cr)	28,400,000	22,900,000	+24.0%
Active funded projects	124	109	+13.8%
PhD students enrolled	198	187	+5.9%
MSc by Research enrolled	62	58	+6.9%
Students graduated (PhD + MSc)	61	54	+13.0%
Postdoctoral fellows in post	94	88	+6.8%
Veyra Fellows (new cohort)	12	10	+20.0%
Summer School participants	74	68	+8.8%
Services revenue (cr)	9,700,000	8,150,000	+19.0%
Equipment rental revenue (cr)	2,340,000	2,010,000	+16.4%
Meridian GPU-hours delivered	2,100,000	1,750,000	+20.0%
Patent applications filed	9	7	+28.6%
Technology licences active	14	11	+27.3%
External collaborating institutions	63	57	+10.5%

All monetary figures in Veyra credits (cr). 'cr' is the Institute's internal billing unit.



Division Highlights

CDS — Computational & Data Systems

Head of Division: Dr. Imara Solveig (from Q4 2025; Prof. Naila Ravelo interim Q1–Q3)

- The Probabilistic Inference Lab (Prof. Tomas Eberhardt) published its landmark paper on sparse-sensor Bayesian networks in the *Journal of Inferential Computation* (VEYRA-DOI: 10.veyra/JIC.2025.0412). With 340 citations in six months, this was the most-cited Veyra paper of 2025.
- The Distributed Learning Systems Group (Dr. Naila Ravelo) completed a 30-month sponsored project with industrial partner Helixon Corp., delivering a federated training framework for confidential clinical data, closing on budget at 1.4 million cr.
- Dr. Imara Solveig's Human-Centred Computing Group launched the Arenfield Accessibility Observatory, a 3-year longitudinal study of assistive-technology uptake in the AR-4400 metropolitan area, funded at 0.6 million cr.

MME — Molecular & Materials Engineering

Head of Division: Prof. Davor Lindqvist

- Prof. Marc Auzou's Functional Materials Group achieved a new thermal-conductivity record for polymer nanocomposites ($\lambda = 4.7$ W/m/K at 300 K), reported in *Advanced Functional Matter* (VEYRA-DOI: 10.veyra/AFM.2025.1187). A provisional patent application was filed in March 2025.
- Dr. Yael Brenner's Catalysis & Green Chemistry Lab won the Veyra Innovation Prize for its room-temperature CO₂-to-methanol catalyst and initiated technology transfer with Caravel Energy Systems Ltd.
- Prof. Lindqvist's Soft Matter & Self-Assembly Group co-led a 12-institution consortium study on stimuli-responsive hydrogels, publishing three co-authored papers.

QPS — Quantum & Photonic Systems

Head of Division: Prof. Elias Marchetti

- Dr. Sora Veld's Integrated Photonics Lab demonstrated on-chip squeezing beyond 15 dB at telecom wavelengths in silicon nitride — confirmed by independent replication. Results appeared in *Nature Photonics Letters* (VEYRA-DOI: 10.veyra/NPL.2025.0089).
- The Quantum Sensing Group (Prof. Marchetti) secured a 3.2 million cr grant from the National Scientific Futures Program to develop a portable NV-centre magnetometer for underground infrastructure inspection.
- Dr. Petra Solano's Nonlinear Optics Lab expanded its ultrafast laser suite with a 1 kHz Ti:sapphire amplifier, enabling attosecond pulse capabilities.

CNS — Cognitive & Neural Science

Head of Division: Prof. Hana Okoro

- Prof. Okoro's Computational Neuroscience Group published a thalamocortical binding model reconciling conflicting electrophysiology datasets from six studies (VEYRA-DOI: 10.veyra/NCC.2025.0234).
- Dr. Lior Halmstad's Neural Engineering Group concluded Phase I of the BrainBridge clinical collaboration with Arenfield General Hospital, with Phase II funding of 2.1 million cr confirmed in November 2025.



– Dr. Roald Steiner's Perception & Decision Lab won Best Paper at the International Symposium on Perceptual Systems (ISPS 2025) for its study on decision boundary plasticity under sensory conflict.

ECS — Earth & Climate Systems

Head of Division: Prof. Aiko Romero

– Prof. Romero's Atmospheric Dynamics Group delivered the final report of the four-year Arenfield Air Quality Initiative, informing the AR-4400 2025-2030 clean-air action plan.

– Dr. Caius Whitlock's Hydrology & Earth Surface Lab published long-term streamflow records for the Caldermere river basin spanning 1987-2024 — an open-access dataset downloaded 8,400 times within months of release (VEYRA-DOI: 10.veyra/HES.2025.DATA.01).

– Dr. Selma Underhill's Climate Informatics Group released CLIM-IX v2.0, adding GPU acceleration and bias-correction modules. Now used at 29 institutions.



Financial Summary

The following table presents a consolidated overview of income and expenditure for the fiscal year ending 31 December 2025. Full audited accounts are available from the Office of Finance & Compliance (finance@veyra.example).

Income	2025 (cr)	2024 (cr)
Competitive research grants (government)	18,200,000	14,700,000
Competitive research grants (private/foundation)	10,200,000	8,200,000
Services revenue — Scientific & Analytical	4,100,000	3,450,000
Services revenue — Software & AI	2,860,000	2,200,000
Services revenue — Patent & IP	1,410,000	1,180,000
Equipment rental	2,340,000	2,010,000
Contract Research & Consulting	990,000	820,000
Endowment income & donations	1,560,000	1,340,000
Other income	240,000	195,000
TOTAL INCOME	41,900,000	34,095,000
Expenditure		
Personnel costs (salaries, benefits)	27,400,000	22,900,000
Research consumables & materials	4,800,000	3,960,000
Facilities & equipment depreciation	3,100,000	2,700,000
IT and compute infrastructure (Meridian)	1,600,000	1,380,000
External collaborations & subcontracts	2,050,000	1,650,000
Administration & governance	1,390,000	1,140,000
Capital expenditure	1,050,000	870,000
TOTAL EXPENDITURE	41,390,000	34,600,000
SURPLUS / (DEFICIT)	510,000	(505,000)

A surplus of 510,000 cr has been allocated to the Veyra Capital Reserve Fund for equipment renewal in 2026-27.



Governance

The Veyra Institute is governed by a Board of Trustees comprising fifteen elected members drawn from academia, industry, and the public sector. The Board meets quarterly at the Calder Mesa Campus.

In 2025, the Board approved two significant governance measures: the adoption of the Revised Veyra Research Integrity Framework (VRIF-2025), and the establishment of a standing Ethics & AI Advisory Committee to provide independent oversight of the Institute's commercial AI services and internal use of automated decision tools.

Institute Leadership

Role	Name
Director	Prof. Margarethe Valdez
Chief Operating Officer & Head of Services	Dr. Anselm Faraday-Cole
Dean of the Graduate School	Prof. Idris Komnenos
Head of Division, CDS	Dr. Imara Solveig
Head of Division, MME	Prof. Davor Lindqvist
Head of Division, QPS	Prof. Elias Marchetti
Head of Division, CNS	Prof. Hana Okoro
Head of Division, ECS	Prof. Aiko Romero
Chair, Board of Trustees	Ms. Theodora Kanschat
Company Secretary	Mr. Bertrand Oehl

Audit & Compliance

The Institute's accounts for fiscal year 2025 were audited by Orrins & Halloway LLP (independent auditors, appointed 2023). The audit opinion was unqualified. No material control deficiencies were identified. The Institute maintained full compliance with the Arenfield Research Funding Regulations (ARFR 2019) and the Veyra Data Governance Policy v3.1 throughout the reporting period.

Outlook for 2026

The Institute enters 2026 with the refreshed five-year strategic plan Veyra Horizon 2030. Key priorities include: expansion of the Meridian HPC cluster by 400 GPU nodes; launch of the Veyra Open Science Portal; two new professional education programs in AI for science and climate risk analytics; and the commercialisation of Atlas v2.0 with enhanced multi-fidelity materials modelling. Full details will be published at veyra.example in February 2026. Enquiries: director@veyra.example.