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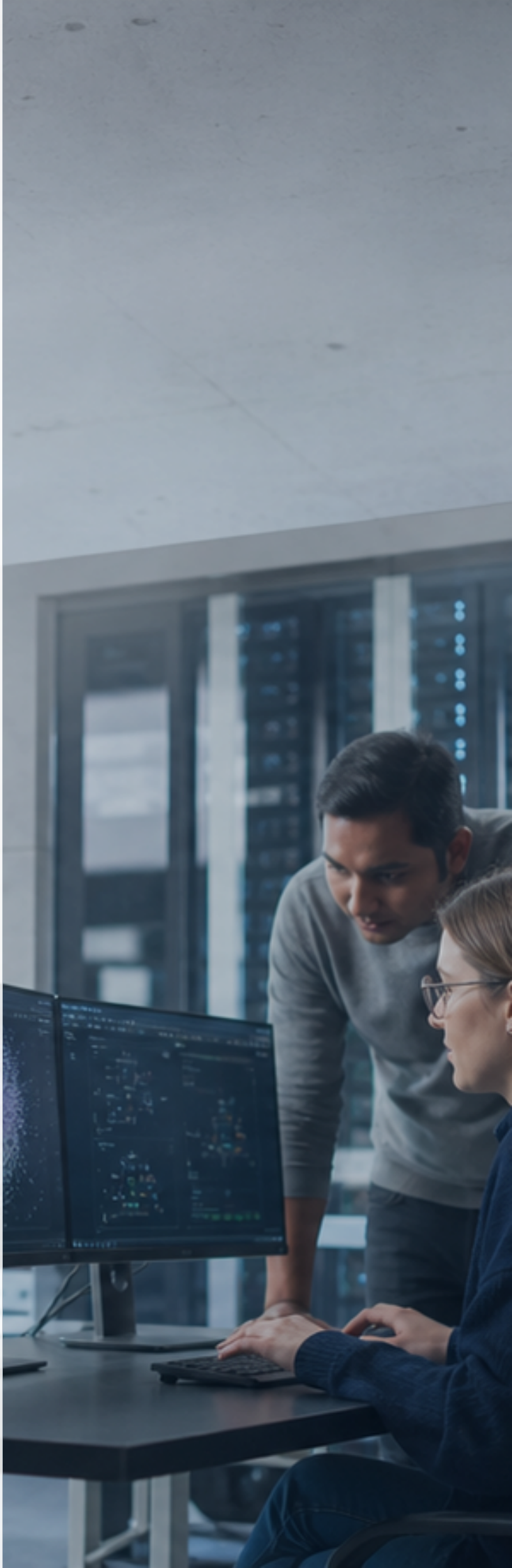
ARGYLL ACADEMIC & EDUCATION AI PROGRAMME

AI Infrastructure, Education and Skills for the Next Generation

A downloadable prospectus for schools, colleges, universities, research teams and institutions developing serious AI capability.

PROGRAMME PRINCIPLE

Do not change the education or research to fit the AI infrastructure. Build the AI infrastructure around the requirement.



Website download edition

Booklet Contents

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A professional website download for discussion with academic, education and institutional decision-makers.

Why the Programme Exists

Artificial intelligence is rapidly becoming fundamental to education, research, engineering, public services and industry. Yet access to AI is often reduced to one narrow commercial question: how cheaply can you buy tokens? Argyll believes education and research should ask a more useful question: what AI capability do we need to learn, discover, experiment and build?

KEY MESSAGE

Do not design the research around the cost of AI. Give the research the AI infrastructure it needs.

The challenge

- Token price is only one component of an AI workload.
- Model capability, context, throughput, architecture, availability and data control may matter more.
- If researchers must reduce context or simplify workflows to control cost, the commercial model has begun to shape the methodology.

The response

- Provide flexible access to production-scale inference capability.
- Support different technical and commercial models rather than forcing one route.
- Give institutions a pathway from first educational use through to sovereign on-campus infrastructure.

Education, Schools and Adult AI Literacy

The future of artificial intelligence will not be determined solely by today's researchers, engineers and technology companies. It will also be determined by students now in classrooms and by adults who will increasingly encounter AI in work, public services and everyday life.

KEY MESSAGE

AI literacy is not simply knowing how to use AI. It is understanding capabilities, limitations and risks.

Schools and colleges

- AI education should extend beyond university research institutions.
- Giving a student access to a chatbot is not the same as teaching artificial intelligence.
- Learners need age-appropriate routes into concepts, safe use, experimentation, APIs, workflows and the infrastructure behind AI.

Adult education

- Millions of adults completed formal education before modern AI existed.
- Community AI literacy can help people use AI confidently, identify limitations and protect themselves from misuse.
- The objective is not to turn everyone into a specialist; it is to prepare society for responsible AI interaction.

What Learners Need to Understand

The programme can support educational materials, workshops, demonstrations and structured AI access. The learning pathway should move from interacting with AI to building with AI, while retaining clear attention to privacy, accountability, energy use and risk.

KEY MESSAGE

The next generation should not simply consume AI. They should understand it, challenge it and learn how to build with it.

AI capability

- What AI is and what it is not.
- How AI models operate and how agents and agentic workflows work.
- How to communicate effectively with AI and validate output.
- How AI can support creativity, science, engineering and problem solving.

Responsible use

- Why AI can produce incorrect, misleading or fabricated answers.
- How data is used and where AI processing takes place.
- Why privacy, intellectual property and provenance matter.
- The ethical, social and security implications of increasingly capable AI systems.

One Programme. Different Ways to Access AI.

There is no single educational or academic AI workload. A school classroom, a university department and a pharmaceutical research programme need different forms of access, assurance and scale.

Education Access

Schools, colleges, educators and students. Education-focused access, workshops and AI literacy programmes.

Paid Token Access

Exploratory use, student projects, app development and smaller research workloads at academic pricing.

Shared Academic Capacity

Research groups, departments and collaborations share infrastructure cost while keeping workloads separated.

Dedicated Academic Capacity

Reserved machine capacity for major programmes, stable environments and predictable infrastructure spend.

Overnight & Weekend Cluster Access

Defined blocks of substantial cluster time for batch, agentic and large-scale inference workloads.

On-Premises / SambaStack

Dedicated RDU infrastructure within the institution's estate for sensitive or long-term programmes.

Managed On-Premises

Local infrastructure with Argyll operational, technical and model-management support.

Containerised AI

Modular campus deployments, including RDU, GPU or hybrid configurations where appropriate.

Hybrid GPU + RDU

Architecture selected around the workload: GPU prefill, RDU decode, or both where appropriate.

Token, Shared and Dedicated Capacity

Argyll can support low-barrier access for early experimentation and more structured capacity for institutions and research programmes with predictable requirements. Users can start small, then move to shared, dedicated or time-based capacity as demand becomes clearer.

KEY MESSAGE

Use tokens when tokens make sense. Reserve capacity when the work requires capacity.

Token and shared access

- Pay-as-you-use token access can support individual researchers, students, educators, proof-of-concept work and application development.
- Shared Academic Capacity lets departments or collaborating institutions distribute infrastructure cost while keeping workloads appropriately separated.
- API access can connect supported models into teaching tools, experiments and research workflows.

Dedicated capacity

- Major programmes can reserve dedicated machine capacity for agreed periods.
- Reserved infrastructure supports stable environments, repeatable research, multi-user access and predictable expenditure.
- Unlimited access means unrestricted use of the reserved capacity, not unlimited infrastructure.

Overnight and Weekend Cluster Access

AI infrastructure does not experience constant demand. Commercial interactive usage rises and falls through the working day, but many research workloads do not require immediate interactive response. Overnight and weekend capacity can become productive academic research time.

KEY MESSAGE

Researchers may finish for the day. Their research does not have to.

Designed for

- Complex agentic workflows.
- Large-scale inference and batch processing.
- Document or dataset analysis.
- Synthetic-data generation.
- Repeated model evaluation, benchmarking and large-context experimentation.

Commercial model

- Researchers pay for defined time on the infrastructure rather than estimating every generated token.
- A workflow can be prepared and validated during the day, launched overnight and reviewed in the morning.
- Friday-to-Monday research windows can support longer autonomous runs.

Inference Infrastructure, Not Model-Training Infrastructure

The programme should distinguish clearly between training people and training AI models. Argyll can provide education, skills development and staff training for teachers, researchers, technical teams and students. SambaNova RDU infrastructure is presented here as high-performance AI inference infrastructure.

TECHNICAL RULE

Where training, fine-tuning or other compute workloads fall outside the RDU inference environment, Argyll can design complementary GPU or hybrid infrastructure where appropriate.

Use the terms precisely

- **Staff training** means educating people to understand, use, develop and govern AI.
- **Model training** means computational training of an AI model. It is not the RDU function being offered here.
- **Inference** is the primary role of the SambaNova RDU infrastructure in this programme.
- **Fine-tuning** should be described separately and only where supported by appropriate complementary infrastructure.

Why this matters

- Researchers need repeatable, technically honest infrastructure descriptions.
- Procurement teams need to understand what is included and what requires additional architecture.
- Schools and adult learners should understand the difference between AI models and the systems used to run them.
- The research question should determine the architecture, not the label on the machine.

Production AI Infrastructure

Academic users can access the same class of production AI infrastructure used to support commercial and enterprise workloads. The programme is currently available using SambaNova SN40 class RDU infrastructure. From 2027, Argyll intends to extend the programme to include SambaNova SN50 based infrastructure as it becomes available within the Argyll platform.

SN40

Available today for production-scale RDU inference.

SN50

Planned from 2027 for next-generation RDU access.

RDU, GPU or Both

GPU for Prefill

GPU infrastructure can provide high-bandwidth memory and processing capability for suitable initial prompt, context and prefill workloads.

RDU for Decode

SambaNova RDU infrastructure can provide efficient, high-throughput token generation for appropriate inference/decode workloads.

ARCHITECTURE PRINCIPLE

GPU where GPU makes sense. RDU where RDU makes sense. Both where the research benefits from both.

Low-Energy AI Infrastructure

Advanced AI should consider more than model performance and token consumption. It should also consider the energy required to produce the result. Argyll's RDU infrastructure is designed for efficient AI inference, providing substantial capability with comparatively modest infrastructure requirements.

KEY MESSAGE

AI should be measured not only by what it produces, but by the resources required to produce it.

Infrastructure characteristics

- Energy-efficient RDU inference.
- Air-cooled AI infrastructure.
- Reduced cooling complexity.
- No requirement for water-intensive direct liquid cooling for the RDU systems.
- High utilisation of installed infrastructure.

Education and research value

- For schools and colleges, energy use can become part of understanding how AI works.
- For universities, energy can become a measurable component of methodology and infrastructure assessment.
- Overnight and weekend access can improve productive use of otherwise underutilised capacity.

Bring AI Onto Campus

For universities and research institutions requiring their own AI infrastructure, Argyll can provide dedicated on-premises systems based around SambaStack. Institutions can choose between Argyll-hosted infrastructure and dedicated local environments.

KEY MESSAGE

Your campus. Your data. Your AI infrastructure. Managed by Argyll if you want us to.

On-premises SambaStack

- Dedicated SambaNova RDU infrastructure.
- Private model hosting and controlled access.
- Single-model or multi-model environments.
- Integration with university networks, storage and research platforms.
- Technical support and lifecycle management.

Managed and containerised options

- Managed on-premises services can reduce the operational burden on the institution.
- Containerised AI infrastructure can provide modular campus capacity where appropriate.
- Deployments can include RDU, GPU or hybrid configurations sized around the programme.

Purchase, Finance or Use as a Service

Educational and research institutions have different funding structures. The programme therefore supports several acquisition and service routes, allowing institutions to establish real demand before committing to long-term infrastructure decisions.

KEY MESSAGE

Experiment -> Share -> Reserve -> Deploy Your Own

Commercial routes

- Purchase dedicated systems outright using capital, infrastructure or research funding.
- Finance acquisition over an agreed period, subject to appropriate financing arrangements.
- Procure managed infrastructure as a service.
- Start with Argyll-hosted infrastructure before moving on premises.

Natural development path

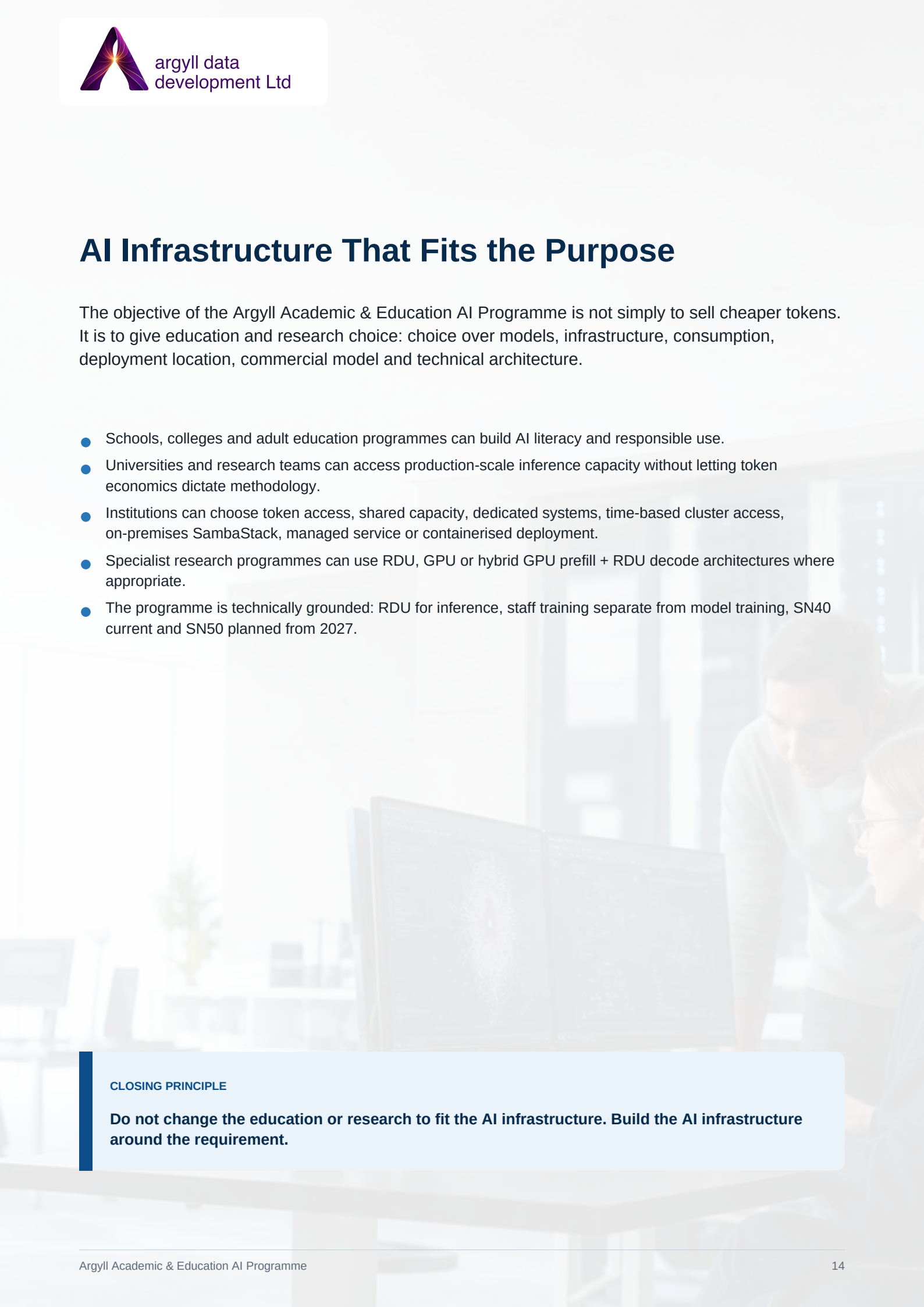
- Experiment with token access.
- Share capacity across departments or collaborations.
- Reserve dedicated infrastructure for serious programmes.
- Deploy on-campus SambaStack, managed service or containerised infrastructure when the requirement is proven.

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AI Infrastructure That Fits the Purpose

The objective of the Argyll Academic & Education AI Programme is not simply to sell cheaper tokens. It is to give education and research choice: choice over models, infrastructure, consumption, deployment location, commercial model and technical architecture.

- Schools, colleges and adult education programmes can build AI literacy and responsible use.
- Universities and research teams can access production-scale inference capacity without letting token economics dictate methodology.
- Institutions can choose token access, shared capacity, dedicated systems, time-based cluster access, on-premises SambaStack, managed service or containerised deployment.
- Specialist research programmes can use RDU, GPU or hybrid GPU prefill + RDU decode architectures where appropriate.
- The programme is technically grounded: RDU for inference, staff training separate from model training, SN40 current and SN50 planned from 2027.



CLOSING PRINCIPLE

Do not change the education or research to fit the AI infrastructure. Build the AI infrastructure around the requirement.