A new $33 million supercomputer bound for Perth will help scientists to uncover the secrets of the universe.

The supercomputer will be installed at the purpose-built Pawsey Centre at the Technology Park in the suburb of Kensington.

Once it becomes operational in March next year, the supercomputer will process masses of data generated by the existing Australian Square Kilometre Array Pathfinder (ASKAP) and Murchison Widefield Array radio telescopes at an observatory in Western Australia’s Mid-West region.

Both radio telescopes played a key part in Australia and New Zealand’s successful bid to co-host the international Square Kilometre Array (SKA) project, the biggest and most advanced radio telescope ever constructed.

It was decided in May that WA and New Zealand would share the $2 billion SKA project with South Africa.

Comprising 3000 dishes and with a discovery potential 10,000 times greater than the best present-day instruments, the SKA will observe deep space remnants left by the Big Bang and help astronomers investigate how galaxies evolved.

And it will also attempt to uncover more about the “dark energy” which is believed to fuel the expansion of the universe.

While the Pawsey Centre machines will initially process data from the existing Mid-West radio telescopes, floor space is being kept free to expand them for eventual use in the International SKA project.

The supercomputer will be built by five specialist suppliers, led by Seattle-based Cray Inc, WA Minister for Science and Research Senator Chris Evans announced yesterday.

“This supercomputer is a critical tool for the Australian scientific community that will increase our research capacity in a range of fields, including radio astronomy, the geosciences and in nanotechnology and biosciences,” he said.

“What is happening with the SKA and the supercomputer is the modern-day equivalent of landing on the moon.”
Computer to uncover secrets

A NEW $33 million supercomputer bound for Perth will help scientists around the world to uncover the secrets of the universe, Minister for Science and Research Chris Evans says.

The supercomputer will soon be installed at the purpose-built Pawsey Centre at Technology Park in the southern suburb of Kensington.

The supercomputer will be built by five specialist suppliers, led by Seattle-based Cray Inc, Senator Evans said yesterday.
Space secrets to be probed

A NEW $33 million supercomputer bound for Perth will help scientists around the world to uncover the secrets of the universe, Science and Research Minister Chris Evans says.

The supercomputer will be installed at the purpose-built Pawsey Centre at Technology Park in the southern suburb of Kensington.

Once operational in March, the supercomputer will process masses of data generated by the Australian Square Kilometre Array Pathfinder and Murchison Widefield Array radio telescopes at an observatory in Western Australia's mid-west.

Both radio telescopes played a key part in Australia and New Zealand's successful bid to co-host the international Square Kilometre Array project, the biggest and most advanced radio telescope constructed.

It was decided in May that WA and New Zealand would share the $2 billion SKA project with South Africa.

Comprising 3000 dishes and with a discovery potential 10,000 times greater than the best present-day instruments, the SKA will observe deep space remnants left by the Big Bang and how galaxies evolved, and will attempt to uncover more about the “dark energy” that is believed to fuel the universe's expansion.

The supercomputer will be built by specialist suppliers, Senator Evans said yesterday.

“This ... is a critical tool for the Australian scientific community that will increase our research capacity in a range of fields, including radio astronomy, the geosciences and in nanotechnology,” he said.

“(This) is the modern-day equivalent of landing on the moon, and it’s happening right here in our own backyard.”
$33m supercomputer seeks space secrets

PERTH — A new $33 million supercomputer bound for Perth will help scientists around the world to uncover the secrets of the universe, Science and Research Minister Chris Evans says.

The supercomputer will soon be installed at the purpose-built Pawsey Centre at Technology Park in the southern suburb of Kensington. Once operational in March, the supercomputer will process masses of data generated by the existing Australian Square Kilometre Array Pathfinder and Murchison Widefield Array radio telescopes at an observatory in Western Australia’s mid-west region.

Both radio telescopes played a key part in Australia and New Zealand’s successful bid to co-host the Square Kilometre Array project, the biggest and most advanced radio telescope ever built.

It was decided in May that WA and New Zealand would share the $2 billion SKA project with South Africa.
Green MP?

Senator Evans

Senator Chris Evans is the Labor Federal Government’s Minister for Skills, Science and Research.

You would think that with a Carbon Tax that aims at protecting the environment, Senator Evans should have learned by now not to send unsolicited faxes of news releases to newspapers.

What an absolute waste of paper.
Space secrets heading west

A NEW $33 million supercomputer bound for Perth will help scientists around the world to uncover the secrets of the universe, Minister for Science and Research Chris Evans says.

The supercomputer will soon be installed at the purpose-built Pawsey Centre at Technology Park in the southern suburb of Kensington.

Once operational in March, the supercomputer will process masses of data generated by the existing radio telescopes in Western Australia’s Mid-West region.
Education funding

Dear Editor,

While much has been written and said about changes to funding for the state’s vocational education and training (VET) system, the one fact that has been missed is that the Victorian Coalition Government has actually committed more not less funding for training over the next four years.

When the former Labor government introduced the current uncapped demand-driven system in 2008 – with full implementation beginning in 2011, little did they imagine the massive cost blowout they would trigger and the proliferation in training providers competing with TAFE institutes for government funding.

Labor in its budget calculations, forecast the cost of funding training would reach $855 million in the 2011-2012 financial year.

The fact is this figure blew out to more than $1.3 billion - a $400 million blackhole.

This cost was unfunded and unexpected and largely due to an explosion in courses with low job outcomes.

For example, since 2008, enrolments in courses like fitness trainers grew by 1,955% and customer contact by 2,234%, while apprenticeships have only increased by 10%.

Anyone who has had to run a household budget, especially during difficult financial times, knows you have to live within your means.

And importantly you have to direct your resources to where they are most needed and do the greatest good.

As a consequence this Government has locked in over the next four years around $1.2 billion in annual funding to support Victorians accessing vocational education and training.

This is an extra $1 billion over the next four years.

The changes the Government announced in May provide increased hourly subsidies for training in areas of skill shortages and high value to the Victorian economy.

Every apprenticeship course will receive increased funding.

At the same time, lower subsidies will be provided for courses that have shown disproportionate increases in enrolments, such as many lifestyle courses including fitness training, customer contact and management, and for courses where there is a comparatively lower return to the Victorian economy, or little likelihood of meaningful long-term employment.

From next year, all providers will receive the same amount for training, whether they be TAFE, Adult Community Education (ACE), or private providers.

TAFEs have significant advantages with their exclusive right to the TAFE brand, their long-established reputation and their significant asset base that has been paid for by the Government and the Victorian taxpayer.

TAFE currently delivers 82 per cent of the highest subsidised courses.

With its established industry links from which to promote “preferred provider” type arrangements, I believe our TAFE institutes have a strong and positive future ahead of them.

The Hon. Peter Hall
MLC
Minister for Higher Education and Skills
Develop regional higher education

REGIONAL universities have very distinct needs which must be addressed by distinct government policy.

We firstly need to recognise that regional universities are very different to metropolitan ones and face unique challenges, not just because of the tyranny of distance, but also owing to greater difficulties in achieving economies of scale and offering a comprehensive range of subjects.

They are nevertheless vital to Australia’s education fabric and make an enormous contribution to regional Australia, its sustainable future, and therefore the nation.

The economic and social contribution of these universities to their region is extensive, but more importantly, students who study there are demonstrably far more likely to go on to pursue a career in regional Australia.

If we agree that regional universities are quite different and that it is in the national interest to secure their future, it follows that we need a distinct regional universities policy from government.

It is not simply a case of the regional universities putting their hand out for more public funds.

As I travel around the country listening to stakeholders in regional universities, the message is invariably a desire for more communication with government in order to develop smarter, win-win regional higher education policies.

SENATOR FIONA NASH
SHADOW PARLIAMENTARY SECRETARY
CANBERRA
Plan to close Prahran campus heaps insult on injury for TAFE

Funding cuts are at the heart, but they’re not the sole problem, says Judy Bissland

Does anyone care about TAFE in Victoria? Certainly not the Baillieu Government nor – it seems – does Swinburne University.

The Victorian government’s changes to vocational training funding is the country’s TAFE institutions’ viability. Faced with this problem, Swinburne has decided to close its Lilydale campus and is negotiating with the government to close the Prahran campus.

It is difficult not to despair about the possible loss of these campuses and the unprecedented access to publicly funded post-secondary education. And this is just one institution.

But while the government’s TAFE cuts will have massive ramifications throughout the state, it is hard not to be a little cynical about Swinburne’s proposed closure of Prahran.

At Lilydale, a dispersed population and limited public transport has made it difficult to attract sufficient numbers for viable educational delivery. The funding cuts have effectively tipped the campus over the edge. The Baillieu government must wear the responsibility for discontinuing further education in a region where it is greatly needed.

However, Swinburne's move to close the Prahran campus is much harder to justify. The campus is a successful education provider, ideally situated on train and tram lines for TAFE and higher education provision. Many TAFE programs at Prahran have a special place within the vocational education system. The first Victorian childcare course was developed there and the campus is an important provider of graduates for the desperate shortage of qualified staff in childcare centres.

While funding cuts will make training diploma level graduates difficult, moving this and other TAFE programs to campuses at Craydon or Wantirna will leave a huge gap in inner southeast TAFE provision.

Students who can get to Prahran are unlikely to travel to outer campuses, thus the move is likely to cause a drop in enrollments. Some Prahran programs such as theatre arts and costume design are unique in the Victorian TAFE system. There are no facilities on any of Swinburne's other campuses for these programs. What will become of the many students wanting to do such courses if they are discontinued?

Prahran Campus TAFE programs in business, IT, community services, English as a second language and courses for disengaged youth could be housed elsewhere, but how will students who can reach Prahran travel to other campuses?

The Prahran campus has wonderful facilities. Government funds have built or redeveloped every TAFE building on the campus in the past 20 years. How can the waste of this investment in public post-secondary education be justified? Prahran is predominantly a TAFE campus with one higher education faculty — art and design. The vice-chancellor's message to staff outlines the value of building a new facility and relocating this faculty to Hawthorn, but makes no mention about what will happen to the TAFE design programs.

There has long been a concern in Swinburne’s TAFE division that the university's dominating interest is on higher education and research, with the TAFE division coming off second-best in terms of focus and finances. Recent statements and decisions seem to indicate that the university is using the funding cuts as a rationale for stripping away all TAFE programs which don’t align with the vision of being a “leading university in science, technology and innovation”, and doing this with scant regard for the intrinsic value of the TAFE programs.

Doubtless the vice-chancellor and council of Swinburne would deny these claims, but actions speak louder than words.

Is Swinburne planning to return government-owned land and sell off the parts of the campus it owns as a means of focusing on its higher education ambitions at the expense of TAFE programs?

This may seem an unfair question given the harsh economic realities they and other institutions are facing with the funding cuts, but it is hard to imagine that an organisation deeply committed to TAFE would close the Prahran campus.

So we are facing the situation where the Baillieu government's disastrous funding cuts to vocational education have snowballed into a dreadful decision by Swinburne that will leave the Victorian public and the TAFE sector much the poorer.

The government should act to reverse the TAFE cuts, as insufficient funding is the heart of the problem and will have massive consequences throughout Victoria.

It should most definitely ensure that TAFE provision continues at the Prahran campus, and if Swinburne is not interested it should negotiate with other institutions that are genuinely committed to retaining TAFE programs at the Prahran site.

Judy Bissland had a 30-year career in TAFE. She was the executive director, educational development, in Swinburne’s TAFE division until 2004 and a member of Swinburne’s council.
The fast lane to employment

School-based programs can provide a head start for those who are work-ready, writes Melinda Ham.

Halfway through year 12, Katrina Small is already well ahead of many of her peers across the country, with a significant artillery of skills and experience in cutting, colouring and styling hair. When she graduates from Southern Cross Catholic Vocational College, Small will receive a Higher School Certificate, a certificate III in hairdressing, certificates in both business services and frontline management, and will have completed two years of her apprenticeship.

Across Australia, about 17,300 students are involved in school-based apprenticeships and school-based traineeships, mostly attending comprehensive government high schools.

In NSW, 238 government schools have specially equipped trade training centres. Some systemic Catholic schools also have facilities. Vocational areas are as varied as automotive trades, animal care, beauty therapy or roof plumbing.

The difference with a school-based program compared with a usual apprenticeship or traineeship is that a student starts to work as an apprentice or trainee during years 11 and 12 with an employer and must spend 100 days at their workplace. At the same time, students also attend TAFE, or a private registered training organisation, for half a day a week and study for a certificate III (as an apprentice) and a certificate II (as a trainee) in the area they are pursuing. After graduation from year 12, students have between one and three years left, depending on their area of study.

The school-based traineeships were established in the mid-1990s and, while the school-based apprenticeships only started in 2007, they have become very popular.

“There’s been a 46 per cent growth in the school-based apprenticeships in the last year,” says the director of vocational education, schools directorate, at NSW Education and Communities, Michael Hyam.

The biggest hurdle is the slow take-up of the program by employers, says the senior co-ordinator of school-based apprenticeships and traineeships at NSW Education and Communities, Liz Kelly.

“Many employers have a lack of understanding of what’s involved,” she says. “Students are expected to be proactive and arrange their own apprenticeship or traineeship. A lot do it through a family friend or a business acquaintance.”

Lots of parents are very enthusiastic about the school-based programs, Kelly says.

“They are really positive and we get great feedback that they are happy that their child remains in school and gets a training wage,” she says.

Southern Cross Catholic Vocational College, a purpose-built facility that opened in 2010, is one of only a few technical colleges of its type, where students in year 11 and year 12 begin a school-based apprenticeship or traineeship, or take vocational courses, to get their HSC without receiving an ATAR (Australian Tertiary Admission Rank).

“It’s asking a lot of 15- to 16-year-olds to make a career decision, so some do not do a school-based apprenticeship because they are not yet workforce-ready; they don’t have the maturity or they are indecisive,” says the principal of the college, Patrick O’Reilly. “Those who do choose an apprenticeship or traineeship need to be well planned and self-disciplined.”

About one in six of the college’s 240 students are doing an apprenticeship or traineeship.
TAFEs survive initial battle

Enrolments defy first-round funding cuts

REGION
By PETER COLLINS

DESPITE savage government funding reductions South West TAFE has survived the first stage with enrolment numbers holding strong — but a second round of cuts is imminent.

Enrolment numbers across the institute’s four campuses in Warrnambool, Portland, Hamilton and Glenormiston are expected to be about 12,000, similar to earlier semesters.

About 30 courses, mainly in lower certificate business, hospitality and recreation courses were deleted from the new semester offering which started this week following the government’s decision to sharply reduce subsidies by up to 340 per cent.

“We are holding the line,” institute chief executive Joe Piper told The Standard.

“There hasn’t been a sharp drop-off as feared.”

Strong enrolments have been attributed to a recent campaign urging students to sign up by June 30 and avoid higher fees.

“Changes to course offerings have been well supported by the community with TAFE reaching its revised enrolment targets of second semester,” he said.

“There are still many opportunities available for students who would like to study in the second half, including a strong industry short-course program.

“A very quick and difficult transition our staff have rallied to ensure everyone who wants to study with us this year can do so in confidence.”

The institute cut 43 jobs in May after the state government reduced funding by $2.9 million for this year and is now tackling a $4.3m cut in 2013 and present a transition plan to the government by September.

It is understood staff numbers and course offerings will be key considerations in the next stage.

“This plan will be a blueprint to ensure that viable TAFE programs meet the region’s training needs,” Mr Piper said.

“It will outline the programs and services the institute will provide throughout the region for the next three years.”

Australian Education Union vice-president Greg Barclay said all TAFE institutes had given an assurance staff would be consulted before the new plan was enacted.

Meanwhile, the Victorian Farmers’ Federation, applauded an assurance from Higher Education and Skills Minister Peter Hall that agricultural courses would continue in the TAFE sector with many higher certificate courses receiving a five per cent funding loading.

VFF president Peter Tuohey said he told Mr Hall of the importance of ongoing regional training providers in agricultural courses to ensure a skilled workforce for the future.

Mr Piper urged the agriculture sector to support training providers. “We expect good enrolments to continue at our Glenormiston campus.”

pcollins@standard.fairfax.com.au