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# **Flinders University Response to Infrastructure SA Discussion Paper, *20 Year State Infrastructure Strategy***



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Artists impression of a potential design for the Australian Centre for Innovative Manufacturing (AICM)

## 1. THE FUTURE OF WORK

Flinders University has multiple initiatives focused on the future of work that can benefit South Australia.

- a. Advanced technologies are transforming manufacturing around the world, fuelling the growth of new and existing companies and generating thousands of well-paid and rewarding jobs. **The creation of an Australian Centre for Innovative Manufacturing (ACIM) at Tonsley could include building the nation's first reconfigurable 'Future Factory'.** This would position South Australia as a leader in cutting edge manufacturing capability, connecting our companies with the latest manufacturing technologies, research expertise and providing training to modernise workforces. This centre would have a mandate to create jobs and promote growth in areas of strategic importance to Australia including defence and aerospace, construction, medical devices/assistive technologies, water and energy, and wine and food. **The centre is planned to be a joint project between Flinders University and government with private sector and industry partners already eager to launch. State investment will accelerate the impact and value to our region of the ACIM.**



Artists impression of a potential design for the Australian Centre for Innovative Manufacturing (ACIM)

- b. The New Venture Institute (NVI), operating out of the Tonsley Innovation District, has supported 327 startups at a value of \$13,280,000. It has been recognized as a global award winner for business incubation. Over the last six years the NVI has developed, tested and refined training and programs proven to grow new businesses at each stage of their development. NVI has an experienced team, network and mentors with demonstrated results currently operating successfully at Tonsley. With support and coordination from government, NVI can work more closely with startup support functions located at Lot 14 and with similar programs at South Australia's other leading universities. **State assistance to support NVI growth to include a Lot 14 presence can bring support, mentoring and experience to the State Government's bold initiative to have the highest rate of business startups within a decade.**



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## 2. LIVEABLE SOUTH AUSTRALIA

With southern Adelaide communities growing rapidly, there is a need to ensure the infrastructure needs are met both now and into the future.

Flinders Village, a transformational \$1.5 billion development at Flinders University's Bedford Park campus, will create the biggest integrated health and education precinct in South Australia, adding economic value to the state and the nation. Adjacent to the new Flinders Station, due to open in 2020, the development will feature student accommodation, an advanced Health Research facility, transitional health accommodation, a hotel, and amenities such as retail facilities, benefitting students, staff and the community.



Artists impression of the Flinders Village

- c. To leverage this village South Australia needs an efficient public transport network that maximises the key activity nodes at Marion and Flinders. Currently Flinders and the State Government are reviewing the public transport approach, including the **consideration of a potential multi-modal interchange adjacent to the new Flinders Station**. This would substantially enhance the attractiveness of public transport for the southern region and deliver increased community value from the current State and Flinders investment in the area. The infrastructure outcomes of the public transport and interchange review currently underway should be committed to and delivered as a matter of urgency.
- d. There is also a long-term plan to connect the University and the Hospital with the Tonsley Innovation Precinct. This was envisaged as part of the Darlington Project and led to the creation of the Mimosa-Sutton bridge being constructed. **Now that this critical bridge for Mimosa-Sutton is in place, the completion of the link that connects the University and Tonsley needs to be prioritized.**
- e. A critical improvement to the southern Adelaide region following the Darlington Project is **enhanced pedestrian pathways and last mile transportation solutions between the new train station and the broader community**. This connection for cyclists and pedestrians is key to further integrating these activity nodes and driving enhanced integration and output from the Village, the University, the Flinders Medical Centre and the Tonsley Precinct.

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### 3. HEALTHY SOUTH AUSTRALIA

The University has a range of health profession programs, creating an exciting opportunity to provide high quality, cutting edge clinical services (supported by students). These include Occupational Therapy, Physiotherapy, Audiology, Optometry, Nutrition & Dietetics, Speech Pathology, Psychology, Early Childhood Education and Social Work through our College of Nursing and Health Sciences and our College of Education, Psychology and Social Work.

- f. **Partnering with State Government on the redevelopment of the Repat Health Precinct will benefit both parties through student placements in health, social work and psychology clinics. Flinders could collaborate on any of these services to deliver pre-service teaching and community-based placements and clinics.** These conversations with SA Health have already begun however continued and tangible government support would accelerate Flinders' ability to participate in the vision for the revitalisation of the Repat Precinct.

### 4. SUSTAINABLE SOUTH AUSTRALIA

- g. Alternative fuel vehicles are already available in the market and autonomous vehicles will soon be a reality on our roads. Some of the world's leading researchers in this area are based at Flinders. We plan to build on our partnerships with government and industry and continue to **develop this technology by building the first Future Mobility Centre in Australia**, focused on providing an experiential learning environment on alternative fuelled vehicles, autonomous vehicles and supporting infrastructure. Consumers, private sector, governments and educational institutions will be able to learn about the environmental and economic benefits of electric vehicle transport solutions and their role in reducing greenhouse gas emissions as well as creating new opportunities in Australia. The Future Mobility Centre will also provide the ability to experience or test drive a range of products from leading manufacturers. The concept is based on the "Plug 'N Drive Electric Vehicle Centre" in Ontario and the "Go Forth Electric Vehicle Showcase" in Portland being the first two centres in the World.



Flinders FLEX shuttle operational as part of an autonomous vehicle trial

- h. Our research and projects in water management and renewable energy generation already have a nation-wide impact. We currently generate significant power from solar panels and are working toward the goal of net zero. Flinders has the potential to not only achieve net zero or beyond, but also to **partner with State Government on larger scale renewable energy and energy storage projects across the state.**

- i. There is also the opportunity to develop a new research centre into the future of water and energy in the state and in South Australia. With increasing pressure on limited water resources and rising demands for stable, reliable and alternative power there is an urgent need for research and development in this field. **A collaborative research centre would connect the leading researchers in South Australia to deliver the research and development needed to ensure our water and energy future is sustainable and reliable.**
- j. To ensure the State capitalises on its existing and planned infrastructure investments in renewable energy, the future infrastructure needs of the growing hydrogen sector should be considered. The Department of Energy and Mining is leading a collaborative effort on the future education, training and community awareness needs for the Hydrogen economy, involving AGIG, H2U, Flinders University, UniSA, the University of Adelaide and TAFESA. **Hydrogen Economy infrastructure such as dedicated classrooms, laboratory facilities and demonstration rigs may be required in providing education and training to apprentices, tradespersons, operators, technicians and graduates working nationally within the future.**

## 5. CREATIVE SOUTH AUSTRALIA

Our College of Humanities, Arts and Social Sciences has been at the forefront of training award winning artists for 40 years. Integrating practicing artists with world-leading academics nurtures artistic talents and hones the creative intelligence of our students. Our graduates embark on exciting careers in creative industries which makes South Australia a vibrant and exciting place to live and work. Flinders has a keen interest in the development of the State Arts Plan and has contributed to the review; it keenly awaits the final output.

- k. **Flinders seeks support and partners to build a purpose built and co-located Creative Arts Hub.** This facility would provide a space for emerging artists to experiment, create and present work; plug artists into the national innovation agenda; support international masterclasses; facilitate high-level collaborations in experimental media and intermedia performance; access digital and physical infrastructure to enable international creative production or engagement-led partnerships with industry (e.g. tourism) or for social inclusiveness, improved citizenship and personal wellbeing.
- l. In addition to our students studying creative arts industries, Flinders has a collection of 8000 original works of art, constituting the most extensive public art collection in South Australia after the State Gallery. **Flinders is able to establish a leading university museum or gallery that consolidates the institution’s art, cultural and scientific collections and delivers a pioneering, innovative and contemporary centre for research, education and engagement.** The facility can be standalone or can be achieved in partnership with a bigger project.

## 6. INTERNATIONAL SOUTH AUSTRALIA

The growth in international students contributes a large amount to South Australia’s economy each year. In 2018, Flinders’ total higher education international enrolments made up 18% of both commencing and total enrolments across SA.

| 2018 Student enrolments | Flinders University | SA            |
|-------------------------|---------------------|---------------|
| Commencing              | 1,925               | 8,643         |
| Continuing              | 1,891               | 12,063        |
| <b>TOTAL</b>            | <b>3,816</b>        | <b>20,706</b> |

Source: SA enrolments and commencements- Austrade MIP Orbis Data;  
Flinders enrolments and commencements – Flinders Business Analytics

Important note: Flinders data include Australia Awards students, however Austrade data does *not*.

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Between 2014 - 2018 Flinders University has grown 53% in international commencing students, compared with 36% across the state.

Department of Trade, Tourism and Investment together with Study Adelaide are marketing our State as a Centre of Education Excellence with the aim of attracting more international students to live and study in our community and to grow our International Education sector to \$3.0 billion in value supporting 23,500 jobs by 2030. It is expected that the sector will grow on average between two per cent and 2.5 per cent per annum up to 2030.

- m. **The State Government is considering an International Student Hub to provide students with a comprehensive range of services. Flinders is anticipating an increase of 5,000 international students. Building a satellite office in the southern suburbs would leverage off the planned development and projected growth at Flinders, making the region an even more attractive destination for international students.**

