

Professor Rufus Black, Vice Chancellor, UTAS
Poppy Fay, Director, Campus Futures

Dear Rufus and Poppy,

Thank you very much for inviting us to join the STEM AI Discussion on Tuesday 13 August. It was inspiring to workshop ideas with a group of people committed to building state of the art STEM at UTAS.

The talks by yourself, Rufus, with Angela Castles and Liam McClaren emphasising the criticality of STEM to Tasmania's future, the interdisciplinary nature of innovative STEM research and teaching and the importance of a vibrant campus connected to the natural environment, all resounded with us. The collaboration with industry and government, establishment of innovation hubs and interactive STEM centres to inspire 'next gen stemmers', are also ideas we wholeheartedly support.

Some of the issues you mentioned, Rufus, which are of particular importance to Tasmania include sustainability and the management of the environment due to climate change, the importance of a circular agenda with continual renewal and zero carbon.

We feel there is a great opportunity to exemplify these principles through the management of UTAS buildings and infrastructure by refurbishing, or relifing (using the Hassell term), the Sandy Bay campus and thus saving the embodied carbon through continual renewal. This would be a demonstration of the UTAS commitment to sustainability and put climate action into practice.

Angela Castles spoke about the importance of collaboration, especially across disciplines and the removal of silos. She also mentioned giving students the opportunity for hands-on study and field work; and vibrant, inclusive spaces encouraging student interaction, as well as spaces for deep thinking and 'opportunities to breathe'.

UTAS is fortunate that all the STEM disciplines with the exception of medicine and IMAS are already co-located on the Sandy Bay campus. Geography and Environmental Studies, Geology and CODES, Physics and Maths are all interconnected. Close by on the other side of the central mall are the neighbouring buildings of Chemistry, Pharmacy and Engineering, with Life Sciences a short walk away. The current spatial arrangement facilitates interdisciplinarity which could be further enhanced with internal refurbishments and a lift to improve access across Churchill Avenue. In addition, the Arts disciplines are there if STEM wants to get STEAMY.

The UTAS bushland reserve provides opportunities for field work, particularly for Botany and Environmental Studies students. The spatial layout of the Sandy Bay campus with the central mall as its focus encourages informal interaction, and with improved landscape design such as terracing and more active building edges has the potential to be a more vibrant, inclusive heart. The availability of space for industry and government to co-locate and provide hands-on study opportunities for students is another advantage of the Sandy Bay campus.

Liam McLaren, giving the student perspective, also spoke about interdisciplinarity, inclusivity and accessibility as well as hands-on facilities and connections with industry and research. Liam stressed the importance of having 'places of our own plus places to connect' with the main opportunities for STEM student connection being the 18 clubs and societies within STEM which Liam says are the 'heart and soul' of student life.

The open space and sports facilities of the Sandy Bay campus provide many opportunities for these clubs and societies to flourish.

Liam also spoke about the importance of connection with the natural environment which he says is the reason most students come to, and stay in, Tasmania. It is a great attraction of UTAS that a strong environmental connection can be achieved on the Sandy Bay campus with its green grounds, bushland reserve and spectacular views connecting the campus to the powerful landscape setting of Hobart.

And although not specifically mentioned at the workshop, a green campus has many socially sustainable benefits for students and staff. There has been much research demonstrating the contribution that green spaces make to mental health, productivity and creativity.

Mark Roehrs, Hassell architect, presented exciting examples of contemporary STEM facilities featuring co-location of STEM disciplines with shared research infrastructure based on outcomes rather than disciplines and consolidated teaching labs for biology and chemistry. In some examples, the collaborative nature of these facilities extended to industry and government. Transparency of the building interiors was used to express and enhance collaboration.

We feel that one of UTAS's great existing STEM initiatives at Sandy Bay is the excellent shared research resource of the Central Science Laboratory which also collaborates with government and industry.

Other STEM examples presented by Mark included industry start-ups, flexible lecture theatres suitable for community use as performance spaces and engaging science centres to inspire 'next gen stemmers'.

With the Stanley Burbury Theatre providing flexible theatre space for community use and available space on campus to establish industry start-ups and an inspiring centre for the next generation stemmers, we feel the Sandy Bay campus is an ideal location for many of the STEM initiatives presented by Mark.

What particularly interested us in Mark's presentation were the examples of 'reliving' STEM buildings – transforming building interiors to provide exciting contemporary interiors, saving much of the embodied carbon in the building.

The existing STEM buildings at Sandy Bay are generally in at least fair condition (as rated by UTAS 2022), have much of the required expensive servicing and specialised structure (fume cupboards, power, gases, large workshops able to support heavy loads etc) and

would be suitable for relifing. The Chemistry building has examples of successful recently refurbished labs. Current academics confirm that existing STEM buildings are perfectly located relative to ancillary facilities e.g. the siting of Plant Science glasshouses adjacent to labs and research areas.

We feel the green Sandy Bay campus and retention of the embodied carbon in the existing buildings through relifing will contribute to the university's growing reputation for sustainability. Relifing the buildings will build on UTAS' global award for climate action by contributing to the other UN sustainability goals in The Times Higher Education Impact Rankings, especially No 12 Responsible Consumption and Production.

Although the workshop was 'location agnostic', it conveyed to us that the UTAS Sandy Bay campus is ideal for implementing many of the innovative STEM ideas presented during the day. Thank you again for including us.

Kind regards,
Prue Slatyer
Ian Johnson

SaveUTAS