

# Young universities

**Editorial** Catherine Armitage, Bec Crew, Rebecca Dargie, Gemma Conroy, David Payne, Stephen Pincock **Data analysis** Bo Wu **Art & design** Tanner Maxwell, Madeline Hutchinson, Annthea Lewis, Youssef Khalil, Wojtek Urbanek **Production** Kay Lewis, Ian Pope, Nick Bruni, Bob Edenbach, Joern Ishikawa **Marketing & PR** Stacy Best Ruel, Angelica Sarne, Elizabeth Hawkins **Sales & partner content** Helen Hill, Nicole Yu, Rajdev Narayanasamy, Sabrina Ma, Soon Kim, Pinky Zhang, Lisa Truong, Takeaki Ishihama, Chris Gilloch, Yingying Zhou, Sicong Wang. **Publishing** Rebecca Jones, Richard Hughes, David Swinbanks.

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## Nature Editorial Offices

The Campus, 4 Crinan Street,  
London N1 9XW, UK  
Tel: +44 (0)20 7833 4000  
Fax: +44 (0)20 7843 4596/7

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It takes time to build research institutions of quality and substance, but getting the right components together at the outset enhances the chances of success. The most successful among the Nature Index Young universities, defined as being aged 50 years or younger, are making remarkable headway in attracting talent and rising up the ranks through high-quality research outputs and collaborations.

The leaders of these higher-education institutions often cite similar reasons for their success. Many feel liberated from the traditions that characterize older institutions, and they list strong interdisciplinary cultures, a track record of innovation and the capacity to attract a more diverse student population.

The proliferation of new universities in the 1950s and 1960s has had remarkable effects on countries such as South Korea, where an explosion of higher-education opportunities has seen the proportion of 25–34-year-olds with a tertiary education surge from less than 2% at the time of independence in 1945 to 70% in 2017, among the highest rates worldwide. China and Singapore have also benefited from their commitment to revamping the research and education landscape.

The institutions featured in this supplement are outstanding performers in terms of the Nature Index metrics of article count (AC) and fractional count (FC). The first (AC) is the total number of articles published by an institution's affiliated authors in the 82 publications tracked by the Nature Index. FC measures the share of those institutions' contribution to each article.

The institutions pride themselves on promoting creative thinking, and offering leadership opportunities to young- and mid-career researchers who are encouraged to pursue unconventional research that sparks invention. As Christopher Barner-Kowollik, a macromolecular chemist at Queensland University of Technology in Australia, puts it: "Innovation occurs at the flanks of research, not the mainstream."

And yet, just as industry start-ups often struggle to make it past the first five years, young universities have an uphill battle ahead of them once the initial cash injections to establish them cease. Only those that have built reputations to rival their older peers will survive.

**Bec Crew**  
Senior editor



**On the cover**  
The future imagined: young universities embrace integrative technology, and a green ethos.

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