



Where I work Elena Rodriguez-Falcon

Photographed for *Nature* by
Leonora Saunders.

Helping to build a university from scratch is the hardest thing I've done in my life, but the effort has paid off. Here, I'm standing in a learning space at the New Model Institute for Technology and Engineering (NMITE) in Hereford, UK. We were originally planning to start instruction in March, but the pandemic has pushed our launch to September.

When it does open, NMITE will be different from other engineering institutions: our students won't sit through lectures or pore over textbooks. Instead, they'll spend their time working on actual projects. You don't train violinists by making them read about violins. You put the instrument in their hands and give them a chance to play.

We have more than 22,000 pieces of engineering equipment, many donated by companies that are desperate for work-ready engineers. I studied both mechanical engineering and business in my home nation of Mexico, so I'm familiar with both worlds. I understand the skills that companies need.

The students will be here from 9 a.m to 5 p.m., 5 days a week, for 46 weeks each year.

After three years, they'll have a master's degree in integrated engineering.

We're removing barriers for women hoping to study engineering, and are aiming for a 50–50 gender balance among students. We're not requiring A-levels – standard pre-university qualifications – in mathematics and physics, but the admission process is still rigorous. Prospective students will have to submit an application video. We'll test them in group situations to see how well they collaborate. It'll be like a long job interview.

The UK government gave us a £23-million (US\$31.4-million) start-up grant in 2017, and we've been fund-raising ever since. Donations will cover tuition for all students in the inaugural class. We plan to eventually have up to 1,000 students at once. We're currently licensed to recruit students only from the United Kingdom, which is fine for now. Their country needs them.

Elena Rodriguez-Falcon is the president and chief executive of the New Model Institute for Technology and Engineering in Hereford, UK.
Interview by Chris Woolston.