



An Ingenious case study

E⁴ = (Engineering)⁴ Engaging*Exciting*Enthusiating*Experiencing



The aim

To create a team of four PhD level engineers from electrical, mechanical, civil and chemical engineering to develop and deliver events at museums, schools and other public venues over the course of a year.

The aim was to help nurture early-career engineers' communication, leadership and event management skills. Furthermore, the project was designed to encourage engineers to start thinking about their subject more creatively and to experience the enjoyment and challenge of enthusing the public about engineering.

"Convincing supervisors of the value of the project was a lot easier with endorsement from the Academy,"
Gillian Thomson, Project Manager

About the project

The initial stage was to invite post-graduate scientists and engineers, who were interested in the project, to attend a three-day science communication course (this was supported by Roberts' Funding). Twenty students signed up for the event.

"When we put out the call to do the training we filled every space. It was really heartening to see that people wanted to take part, and really encouraging to see the enthusiasm people have for communicating science and engineering."

Gillian Thomson, Project Manager

The sessions, which were run by a professional science communications presenter and journalist, helped the project team to identify the most suitable candidates for the role and to prepare them for what would be involved.

It was important to select researchers for the project that were openly and naturally enthusiastic about engineering in addition to being technically good presenters.

One of the greatest challenges was finding students who could commit to the year-long programme. Even if the researchers could commit the time, it was also important that their supervisors were supportive of their participation. As such, it was imperative that the public engagement activity would enhance, and not distract, the researchers' studies.

The selected engineering researchers were able to gain skills and experience by developing and delivering a number of talks and activities to a wide range of audiences at the Edinburgh Science Festival, as part of university open days and in secondary schools.

"Public engagement is becoming more highly-valued by research councils. It is key to what you do and essential to many training and research agendas."

Gillian Thomson, Project Manager

**Grant Holder
Project Managers**

**Organisation
Grant type
Grant level
Project period**

**Dr Heather J Rea, Research Associate, Mechanical Engineering
Dr Gillian Thomson, Lecturer, Chemical Engineering
Dr Gerry Starrs, Research Associate, Civil Engineering
Heriot-Watt University
Ingenious public engagement grant
£29,980
2008/2009**

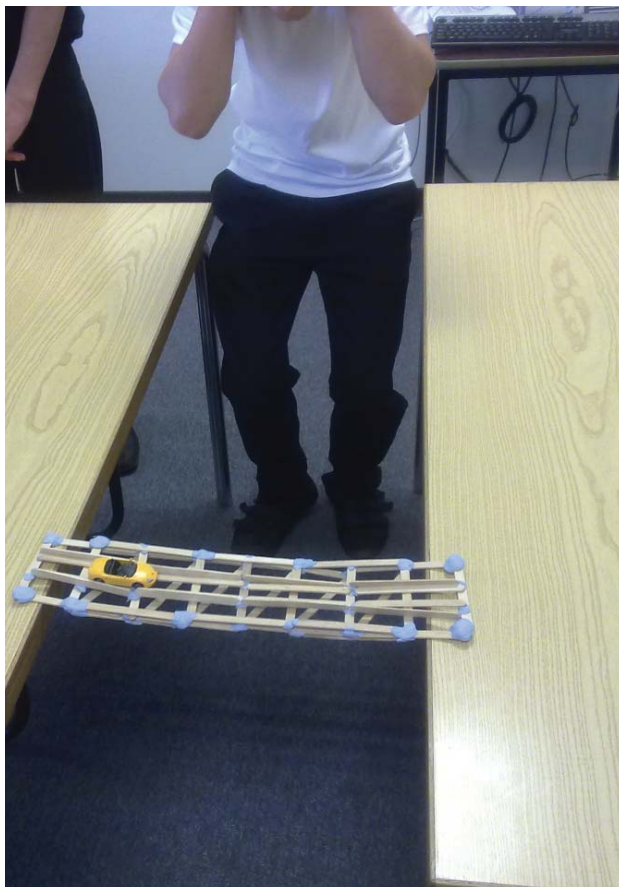
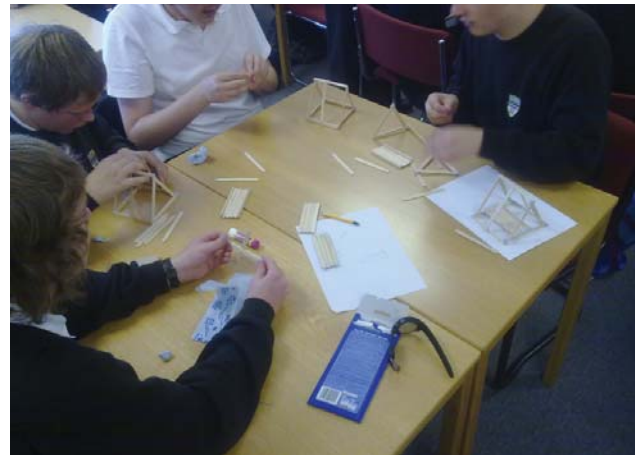
How did it go?

The project is still underway but the team have already identified a number of successful project outcomes:

- Getting engineers from different disciplines to work together meant they had to think about their work in broader, more accessible terms. In delivering the activities, the engineers were able to develop their communication skills further by engaging with children and families.
- This project has helped grow the university's local community relations and enabled members of the public to engage with engineering more widely and more easily.
- This project also enabled the team to attend conferences and other events to further promote its activities to key audiences.

"To have the backing of a respected organisation such as RAEng lends weight to the importance of the project and the subject. It raises the profile of public engagement and helps demonstrate how important engineering is."

Gillian Thomson, Project Manager.



Best bit?

"Having a common goal and seeing the researchers work so well together to develop their ideas and develop as a team as it all came to fruition was incredibly satisfying."

Gillian Thomson, Project Leader

What next?

The university is looking to develop a number of spin-off activities as a result of this *Ingenious* project. The opportunity to create a children's interactive drama activity related to energy and engineering is just one activity under consideration.