

# INTERNATIONAL SPACE CHALLENGE

**The final frontier was conquered by girls in February 2016....**

The International Space Challenge was a Business Language Champions initiative, funded for a second year by the Institution of Engineering and Technology together with the Institution of Mechanical Engineers, and generously supported by the National Space Centre. The overall aim of the project was to show that languages can add an extra dimension to a Science or Technology career. It was an opportunity for students to see how they could make their science and language learning relevant for the world of work in a fun environment, improving their employability skills along the way.

In the autumn of 2015, we ran a three part challenge with our funding similar to the challenge we ran in Derbyshire in 2014, with the difference being that it was region wide, rather than just one county. However, we also ran a one day event at Nottingham Girls' High School in February 2016, which received funding on condition that it was an all girls' event. The IET and the IMechE have a particular target to encourage girls to take up science and engineering, so it was with this in mind that the event was launched. We had never restricted our events in this way before so were intrigued as to how it would run. So this International Space Challenge was open to female students from Years 10 and 11 who were studying both SCIENCE and a LANGUAGE. The teams consisted of 5 or 6 students each, and each team had a common language to work with. We were delighted to work with teams from Nottingham Girls' High School, Leicester High School, Oakham School, Moulton School and Science College, Trinity Catholic School, Lincoln Castle Academy, Spalding High School and Netherthorpe School.



For this event we were delighted to be joined by Dr. Dan Brown, who is a lecturer on Astrophysics at Nottingham Trent University and also a German and Spanish speaker. Dr. Dan Brown was our key note speaker and inspired the students with his experience working in Germany, UK and South America.



The background to the challenge was that in 2016 Russia will be launching their first space hotel. The challenge was therefore to design a space hotel for a European consortium to compete with the Russians. The overall design had to be smart and practical, and the hotel needed to be full of innovative ideas that had real potential to work in space. Furthermore, teams had to work partly in a foreign language and the finalists had to make a presentation to the 'European investors' in French, German or Spanish.

The students were then introduced to the challenges of low-earth orbit by Andy McMurray, Head of Teaching and Learning at the National Space Centre. As well as building the hotel model, students



had to complete work sheets on the power consumption of their space hotel and engineering design sheets Dan brought with him three of his postgraduate students who added an extra twist to the events by setting up stations around the room with experiments on materials that the students had to consider in developing solutions for their tasks. Language elements were brought in during the building of their model, and marketing of the hotel, including a tweet in their target language and a foreign language presentation

Whilst the judges deliberated, the students were treated to a language taster in Russian – after all they needed to get to grips with the language of their competitors!

The overall winning team was from Leicester High School. The runners-up were from Mouton School and Science College. The winners were treated to a special day out at the National Space Centre including a Planetarium visit and a special Space Masterclass.

**Student comments included:**

*“Andy was informative and made me more interested in engineering”*  
*“Speaking in a foreign language only has pushed our skills and reared our ability to speak naturally”*  
*‘I had a great day and learnt many new skills that I shall carry through into my studies.’*  
*“I loved the day. It really helped me understand how languages can be useful in a range of career paths which will impact what I choose to study in future.”*

**Teacher comments included:**

*“Thank you on behalf of my students, they have had a fantastic day.”*  
*“It has been a great day – very worthwhile! Many thanks!”*  
*“Thank you for organising this – our students were able to shine in various ways.”*



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- Gerry Blacoe
- Thibault Curé – University of Nottingham
- Daniela Celedon Yañez – University of Nottingham



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- Andy McMurray, Head of Teaching and Learning at the National Space Academy for all his help in developing the material, helping to facilitate the event and providing such a fabulous prize for the winners.
- Louise Holmes and her colleagues at Nottingham Girls’ High School for once again being such fabulous hosts.

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