

Irish student wins second place in the world for his study into the use of pine needles in biodiesel!

- **Wicklow student from Coláiste Raithín picked up silver medal at the International Environment and Sustainability Project Olympiad (INESPO) 2016 –**

Friday 3rd June, 2016 – Lúca de Barra, from Coláiste Raithín, Bray, represented Ireland at the 8th annual International Environment and Sustainability Project Olympiad (INESPO) held in Utrecht between Monday 30th May and Thursday 2nd June. Having won the SEAI sponsored INESPO Award at the SciFest 2015 national final in November 2015, Lúca faced tough competition from 55 other countries to claim a second place silver medal award at the INESPO international final 2016. SciFest is a series of one-day science fairs, funded primarily by Science Foundation Ireland, Boston Scientific and Intel.

Lúca's project investigated whether *Pinus sylvestris* (Scots Pine) needles which he harvested from sustained managed forests in his native Wicklow could be used as feedstock for biodiesel. Oil was extracted by a process of transesterification whereby compression and steam distillation were used to remove the oil from the pine needles. Having demonstrated that pine needles were unsuitable for biodiesel he went on to show that they had distinct potential for other areas of the bioenergy sector, particularly in the development of a sustainable aviation fuel and high performance fuel additives.

Sheila Porter, SciFest CEO, said: *"We are very proud of all the students that compete at SciFest and it is great to see winners such as Lúca develop their projects and go on to further successes. It is so important to promote STEM both inside and outside the classroom so that students develop an interest and carry it forward. Lúca's project is very important as society seeks to use other sources of energy besides fossil fuels. He has done himself, his family and Ireland proud today."*

Congratulating the students on their win, Emer Barry, Education Programme Executive, SEAI said: *"INESPO 2016 has a very high standard of entries and on behalf of SEAI I wish to congratulate Lúca on his incredible success. He developed an idea that he was interested in, he took it to an international level and he won for his country. His focus on biofuels shows that he is engaged with the important issues of the day and it is great to see young people*

seeking to find a solution to some of the challenges facing the world today. I am sure he will go on to other great achievements in the future."

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Notes to editor

SciFest

SciFest is a series of one-day science fairs, funded primarily by Science Foundation Ireland, Boston Scientific and Intel. It is also supported by a number of other companies and organisations.

In 2016, a record number of students and schools took part in SciFest, with over 8,000 students participating in schools, the Institutes of Technology and DCU. Through participation in SciFest students develop their creativity, team-work and problem-solving skills, all of which are transferable skills for later in their careers or academic life.

SEAI

The Sustainable Energy Authority of Ireland (SEAI) has a mission to play a leading role in the transformation of Ireland to a society based on sustainable energy structures, technologies and practices. SEAI is partly financed by Ireland's EU Structural Funds Programme co-funded by the Irish Government and the European Union.

INESPO

The INESPO (International Environment & Sustainability Project Olympiad) is an international Olympiad that was first organized nationally on May 16, 2009. Since 2010, the Olympiad has extended to an international level with participation increasing each year to a current total of

over 65 different countries. In 2016, the 8th INESPO event took place from May 29th until June 3rd in Utrecht.