Calmast Newsletter May 2021

Calmast Team <calmast@wit.ie>

Fri 14/05/2021 14:15

To: Ben Dolan <BDolan@wit.ie>



Hi Ben

Welcome to our new Calmast newsletter, featuring STEM news from the South East and beyond!

We've had a busy year moving all our events and outreach programmes online.

Check out some of the projects we've been working on below, including our Bealtaine Living Earth Festival which starts this weekend.

We plan to have a regular monthly update, If you don't want to receive this information please unsubscribe using link at bottom

We always like to hear from people, so please email us on calmast@wit.ie with suggestions / comments / gueries. Thank you for your support,

The Calmast Team













In this issue:

Bealtaine Living Earth Festival Pint of Science Robert Boyle Summer School STEMreach Cruinniú na nÓg in the South East Nomination for Calmast!

Calmast is the STEM Engagement Centre for Waterford Institute of Technology supporting the South East Region





Waterford Institute of Technology is in the process of merging with the Institute of Technology Carlow to create a Technological University for the South East of Ireland. A central pillar of the new university will be external engagement. WIT has a long and proud record in regional engagement. It established Calmast in 2002 to coordinate and develop an already significant effort in STEM engagement. It was the first such centre in higher education in Ireland. It quickly took on an all-island role with the establishment of Maths Week Ireland in 2006. Calmast leverages the resources of WIT - students, staff and physical resources - and works in partnership to promote all areas of Science, Technology, Engineering and Maths to all. "STEM for all" has always been the core value. The work of Calmast promotes and supports

- Responsible citizenship particularly in sustainability
- Inclusivity STEM for All
- Educational attainment
- Pathways to careers in STEM for all

Covid Response

When the first lockdown was announced, we had to cancel all our in-person activities. We recognised the enormous challenges that families and teachers faced and decided that we could best serve supporting learning at home. We quickly moved online delivering daily Maths at Home activities and by May we had already developed the capacity to deliver our Bealtaine Living Earth Festival online. Apparently the first major STEM festival in Europe to move online. Since then we have reached new and diverse audiences remotely. When the restrictions end we will use this new capacity alongside our traditional in-person engagement

Calmast Hub and Cluster Model

Everything we do is in partnership. Calmast works with local authorities and state agencies, industry and business, NGOs, communities and schools. There are lots of great people and groups promoting STEM and there are more that would with support. We can achieve more working together and the presence of Calmast at WIT offers coordination, training and support to all.

Ní neart go cur le chéile.

In partnership with Industry, local authorities, community groups and schools, Calmast is developing the most comprehensive STEM ecosystem in Ireland across the South East through our Hub and Cluster Model.



This regional development is enabled by the support of many groups and with generous funding from:















Bealtaine Living Earth Festival



Celebrating Our Living Earth

The Bealtaine Living Earth Festival celebrates biodiversity and natural heritage in the South-East of Ireland.

The festival incorporates two very important international days, International Day for Biological Diversity on May 22 and World Bee Day on May 20.

The festival will have a focus on the natural heritage of the Southeast especially biodiversity and wellbeing. Public events will be all online and can be viewed each day at 5.30pm as part of 'LivingEarthTV' on www.livingearth.ie.



Our Living Earth TV line up:

Saturday 15 May: A journey through 4 seasons of the Lafcadio Hearn Gardens, Tramore

- Sunday 16 May: Enjoying Nature for Mental Health and Wellbeing with Dr Mark Rowe
- . Monday 17 May: The Magic of Birds in Spring and Summer with author and broadcaster Eric Dempsey
- · Tuesday 18 May: Exploring the JFK Arboretum
- Wednesday 19 May: Beside & Beneath the Waves- understanding the impacts of climate change on the maritime environment
- Thursday 20 May: The All-Ireland Pollinator Plan- how you can help?
- Friday 21 May: At the head of the tide- a look at the natural history of Carrick on Suir
- Saturday 22 May: Promoting Biodiversity in your Community

Book all of these free events here!



Pint of Science

Pint of Science invites scientists to your favourite local pubs and cafes to share their research with you. This year we are going virtual and bringing the best researchers Ireland has to offer to your living room!

Pint of Science on 18 May will see WIT researchers Saoirse Casey-Power and Dileep Kumar Reddy, join with Sarah McComish (TCD) and Emmanuel Popovici (TCD) to talk about their research. Saoirse is exploring novel ways to use nanoparticles to deliver drugs to the back of the eye. Dileep will talk about his work developing new antibiotics

The event is free, book here!



Robert Boyle Summer School

After missing a festival due to Covid restrictions, the 9th Robert Boyle Summer School will take place from 26 – 27 June 2021.

This year the theme is "Women in STEM: past, present and future".

Due to Covid-19 restrictions, it will take place online.

The school will celebrate the achievements of women in the history of science before exploring issues for women in STEM today and into the future.

Speakers include Dame Jocelyn Bell Burnell and Dr Michelle diMeo Biographer of Lady Ranelagh.

Visit www.robertboyle.ie for more!



Women in STEM

Past, Present & Future

26-27 June www.robertboyle.ie







Maths Week Ireland was founded by Calmast at WIT in 2006 and quickly grew to be the biggest festival of its kind in the world. It has been replicated in Maths Week Scotland and Maths Week England and has inspired many other maths events across the world. Maths Week is a partnership of over 50 groups (including all of Higher Education) on the island. Maths Week participation pre-Covid was over 400,000. In 2020 over 350,000 participated remotely. Maths Week Ireland 2021 will take place from 16-24 October.



STEMreach Programme with Peer Teaching

STEMreach is a very successful STEM initiative developed by Calmast connecting higher education, industry, governmental and non-governmental bodies with primary and post-primary schools. The Centre has developed a range of 6-week STEMreach modules covering problem solving, engineering, chemistry, physics, healthcare and more. Creativity, teamwork, communication and sustainability are key aspects of STEMreach.



















STEMreach Sustainability

Several schools approached us to ask if we could arrange something for Transition Year pupils when they came back to school after Easter. Transition years have missed out on so much of the regular programme, so we readily agreed. Word spread among teachers. In April we welcomed over 420 transition year students from nine schools across the region to their STEMreach Sustained Engagement Programme 'Sustainability; Our Future, Your Story'.

The STEMreach Sustainability module explores sustainability and biodiversity using the medium of digital storytelling. The programme aims to create environmental awareness and empower students to think creativity and critically about the world around them. Throughout the programme students connected with experts in their fields including Grace O'Sullivan MEP, Brigid Walsh chartered engineer specialising in renewable energy and Thomas Arnold digital content creator.

The module will culminate during Bealtaine 'Living Earth Festival' 15 – 23 May 2021 with Transition Year students showcasing a video and activity they have produced to communicate a message about sustainability to their local primary school and community.

If you are interested in getting involved with STEMreach for TY in the new academic year please email calmast @ wit.ie

Find out more https://www.calmast.ie/stemreach-2/

Other events from 2021 so far...



Robert Boyle Winter School:

Normally the RBWS would run over one day in Dublin, but with Covid we ran events over three evenings with the theme "Covid, Science and Policy".

The series commenced on Boyle's birthday with Prof Anthony Staines followed by Ireland's most sought after science communicator, Prof Luke O'Neill. The series closed appropriately on Lady Ranelagh's (Boyle's sister) birthday. The historical dimension was covered by Dr Michelle diMeo speaking about Boyle, Lady Ranelagh and the Plague.

You can find out more about the remarkable Lady Ranelagh at the Robert Boyle Summer School in June.

Bausch + Lomb STEMreach:

Calmast supported Bausch + Lomb in delivering a 6-week STEMreach programme with Waterpark College, Waterford. Calmast ran a science communication session for 120 students in Waterpark, before they went on to learn about different areas in Bausch & Lomb, including engineering, logistics, health & safety and quality. The students then developed an interactive lesson plan on the area they learned about and presented it to 1st years.





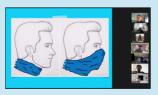
Sanofi Creative Problem Solving:

Last month we ran a day session on Creative Problem Solving for transition year students with Sanofi.

32 students from around the country took part in the workshop, which included puzzles, empathy mapping and an open-ended problem solving exercise where groups had to plan for survival in remote parts of the world.

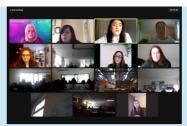
Southeast STEM Entrepreneur camp:

Responding to a request by the HEA, Calmast teamed up with Rikon and Arclabs at WIT to develop an intensive week-long course for transition year students exploring key concepts in entrepreneurship linked to STEM: creativity, empathy mapping, ideation, design thinking and more. We had students from across the South East participating in January, and plan to run another camp in June.



South East Engineering week 2021:

A new initiative this year was the South East Engineering Festival www.engfest.ie, where ahead of the merger of IT Carlow and Waterford IT, Engineering lecturers in the two colleges came together came together with Calmast to run the very successful festival that reached over 6000 people. Over 2,000 engineering kits were sent free of charge to DEIS and special schools across the region. Graduates from both institutes engineers in industry in the region showcased to TY students the



many and exciting Engineering careers available in the region. Special events promoted engineering as a career to girls.

We look forward to building on this success, working with colleagues from IT Carlow in the new Technological University.

SciFest@WIT:

SciFest

SciFest@WIT is part of the national Scifest programme, which is an excellent programme of STEM fairs for second-level students, which has an amazing reach. SciFest is about participation and nurturing.

The fairs take place in 16 regional venues - the 9 Institutes of Technology, TU Dublin (3 venues:

Blanchardstown, Grangegorman and Tallaght), Munster TU (2 venues: Cork and Tralee), DCU and St Mary's College Derry.

Normally a SciFest@College fair consists of a competition and exhibition of projects, a prize-giving ceremony, and may also include a selection of science talks, science demonstrations in the college laboratories and advice on careers in STEM and courses available in the college. However, due to Covid-19 restrictions, the 2021 SciFest@College programme will take place online.

Thanks to all the experts from business, industry and state bodies who together with academics from WIT have undertaken the important and demanding task of judging in the past, we will be calling upon you again next year when once again we will have the spectacular WIT Arena full of enthusiastic teenagers.

Cruinniú na nÓg across the South <u>East Region</u>

We are delighted to be working with County
Councils across the South East to promote
creativity in young people as part of the <u>Cruinniú</u>
na nÓg festival on the 12 June.
Waterford: Moving Sculptures
Wexford: Let's Build Our Thaumatrope

My Kilkenny Automata Workshop



Science Week:

Calmast has teamed up with partners across the region to develop three great local science festivals. SFI organises national Science Week and as part of this funds a number of regional science festivals to promote inclusion.

Sheila Donegan of Calmast has been organising Science Week at WIT for 23 years. Over that time there has been a continuous demand for more events and developing separate science festivals enables us to increase participation, especially with hard to reach groups.

WexSci is a young festival established by Wexford County Council in 2018 that we have been happy to be part of over the past few years. This year, Calmast will coordinate the festival in partnership with Wexford County Council. A strong partnership also includes (so far) Environmental Protection Agency (EPA), Danone and Johnstown Castle.

Kilkenny Science Festival was established last year in difficult Covid circumstances. The festival celebrates the culinary and cultural reputations of Kilkenny. A strong partnership is developing in Kilkenny and joining Calmast and Kilkenny County Council are companies Lighthouse Studios, Glanbia, Security Risk Advisors, Clune Technology Group, Prochem and Surfbox and visitor attractions Kilkenny Castle, Goatsbridge Trout Farm, Castlecomer Discovery Park and National Reptile

The South East Science Festival serves the City and County of Waterford and South Tipperary. Calmast works with Waterford City and County Council and Tipperary Libraries, Waterford Area Partnership and Garter Lane Arts Centre. It is supported by companies such as West Pharma, Bausch + Lomb and Sanofi in Waterford and Abbott and MSD in the Carrick-on-Suir/ Clonmel areas.

We are always interested to hear from prospective partners for all our projects.

Good News!

Calmast is a finalist in the Education Awards in the 'Best Education Outreach' category. The winner will be announced on 20 May 2021.





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