Intel News

Summer 2024

Hello and welcome to the summer edition of the Intel Ireland newsletter

The beginning of 2024 has been a busy time for us here at Intel. After reaching a very significant milestone last September with the opening of our new facility, Fab 34, we were delighted to achieve another very important step at the beginning of this year as the first products to be made in this fab were shipped from the campus. It is very exciting to know that some of the most cutting-edge technology being used around world today is powered by products made right here in Leixlip by our employees.

Most of the exterior, base build, activity for Fab 34 is now complete and the remaining works for the facility are focused on tool installation and qualification of systems, most of which is happening inside the buildings.

With the majority of Fab 34 works now complete, we have begun work on an important infrastructure project to upgrade and reinstate the R148 Leixlip to Maynooth road. Further details about this project, and the key enhancements of the new roadway, are shared in this newsletter.

You may have noted recent news as Intel and a company named Apollo announced an agreement in a joint venture entity related to Fab 34. Under the agreement, the joint venture will have rights to a portion of the wafers manufactured in Fab 34. This will support long-term demand for Intel's products and provide capacity for Intel Foundry customers. Intel will have a controlling interest in the joint venture and will retain full ownership and operational control of Fab 34 and its assets. This arrangement reflects the high level of trust in Ireland's operational capabilities and, most importantly, in the exceptional talent and dedication of our team.

There have been many highlights across our community, education and sustainability initiatives in recent months. For example, we are very proud to share that, through our employee volunteering, over €1.4 million has been distributed to 305 Irish organisations as part of the Intel Matching program. We hope that you will enjoy reading about this program and our other initiatives throughout this newsletter.

We would like to thank you for your continued support and hope that you will enjoy the rest of your summer,

Neil Philip, Joe Bolger, Joe English
Intel Ireland Factory Managers

Intel wins prestigious American Chamber Global Impact award

We are delighted to share that Intel has been awarded the American Chamber Global Impact Award at the US-Ireland Business Awards ceremony held on Friday, May 24th. This accolade recognises the significant positive impact that Fab 34, Intel's newest manufacturing facility, has made on global markets and society through its innovations and sustainable practices.

The award underscores Intel's commitment to pushing the boundaries of technology and fostering international collaboration, as demonstrated by the groundbreaking Fab 34 facility. Opened in September 2023 in Leixlip, Co. Kildare, Fab 34 is at the forefront of semiconductor innovation. As Europe's first high-volume semiconductor manufacturer utilising extreme ultraviolet lithography, it marks a significant leap forward in the industry.

Fab 34 manufactures Intel 4, Meteor Lake, and is preparing to manufacture Intel 3, Granite Rapids, Intel's most advanced and efficient products to meet the demands of artificial intelligence, autonomous driving, and cloud computing applications. Since its opening, the facility has doubled the manufacturing production space at the Leixlip campus and has had a positive impact on a global scale in terms of investment, people, and sustainability.

Intel Ireland named top graduate recruiter for 11th consecutive year

Intel Ireland were named the most popular graduate recruiter in engineering for the eleventh year in a row at the gradireland recruitment awards. The Graduate Recruitment Awards are the largest early careers recruitment awards in Ireland. Submissions were adjudicated by an expert panel of judges and the votes of over 20,000 undergraduate students in Ireland.

Intel Ireland named FDI Company of the Year

At the Invest In Ireland awards 2024, held on March 7th, Intel Ireland won the most prestigious award of the event – the Grand Prix Winner – FDI Company of the Year At the event, held in the Aviva stadium in Dublin, Intel also picked up the Best Established FDI Business award. This award honours an outstanding FDI organisation operating in Ireland since before 2020. The FDI Company of the Year award is selected by a panel of judges based on the winners of the individual category awards and the strength of their submissions.

In selecting Intel as the recipient of the FDI Company of the Year award, the judges noted that; "Intel has been operating in Ireland for almost 35 years, growing their manufacturing presence in Leixlip to become one of the largest and most technologically advanced industrial campus' in Europe, directly employing almost 5,000 people and representing the largest private investment to ever be made in Ireland. They are a standard bearer for Irish FDI and all the good both economically and socially that comes from these vital investments. Their submission was standout and Intel are worthy winners of the 2024 Invest In Ireland Awards Grand Prix."

Since 2018 The Invest In Ireland Awards have rewarded excellence in the inward foreign direct investment sector in the Republic of Ireland. The Invest In Ireland awards are supported by IDA Ireland. Speaking about the awards, IDA CEO Michael Lohan said; "The Invest In Ireland Awards recognise the contribution of the FDI sector to the Irish economy and society, not only through investment and job creation but also through integration into the community and the fabric of Irish life".

At the same event, Intel's Dr. Ann Kelleher was honoured with a very special recognition – the FDI Hero award. The FDI Hero Award is a highlight of the event and is selected by a panel of judges to recognise an individual who has made an outstanding contribution to the FDI ecosystem in Ireland.

Intel Ireland named on LinkedIn's 2024 'Top Companies in Ireland' List

Intel Ireland were proudly ranked 6th on the 2024 LinkedIn Top Companies in Ireland list. The third annual LinkedIn Top Companies list highlights the 25 best workplaces for people to grow their careers in Ireland right now. The list is informed by unique LinkedIn data and the methodology looks at different aspects of career progression, adding new skills and more.

Intel and German University Collaborate in Progressive Sustainability Study

Intel Ireland recently hosted Hochschule Magdeburg - Stendal University of Applied Sciences (h2) and University College Dublin (UCD) in a collaborative event, focusing on wastewater management and sustainable engineering.

Talent development is at the heart of Intel's vision for expanding chip manufacturing in Europe and this is underpinned by having strong relationships with academic partners across the region. This is particularly important in Saxony Anhalt, and this latest activity was a chance to introduce h2 to Intel's manufacturing environment and connect them with some of our academic partners in Ireland.

The event showcased the culmination of the h2 Bachelor of Engineering's StREaM semester 4 competition, which focused on a wastewater sustainability challenge set by Dr. Fiona Moclair, Director of EMEA Manufacturing & Sustainability Policy at Intel. The competition's impact extends beyond the academic realm, requiring students to demonstrate practical applications in critical sustainability engineering, while addressing semiconductor industry requirements.

Intel Ireland crowns 2024 Mini Scientist champions

In March, Intel Ireland hosted the Grand Final of the 2023/2024 Mini Scientist competition, where students from across Ireland descended upon the Intel campus armed with mind-boggling projects that they have been brewing for months. From generating electricity to studying what makes your heart tick, these young scientists really blew our socks off!

This year, over 6,800 students from 94 schools in 18 counties participated in the Mini Scientist competition, leading to over 1,000 projects that truly inspired us. The Grand Final brought together the top 26 projects from around the country.

Fab 24 Factory Manager and Intel Vice President Neil Philip was thrilled to welcome these pre-teen prodigies to the Intel Campus. The event was also attended by Minister Thomas Byrne, Minister of State at the Department of Tourism, Culture, Arts, Gaeltacht,
Sport and Media.

> *"...these young scientists really blew our socks off!"*

This years' winners were Tomás Ramsbottom and Emma Burke, 5th class students from Scoil Mhuire Fatima in Timahoe, Co Laois. They explored a proposal to power a wireless pacemaker through kinetic energy. The inspiration for the project came about due to the fact that Tomás had a pacemaker implanted when he was a baby.

Speaking at the event, Minister Byrne, said: I'm delighted to be part of the Intel Ireland Mini Scientist Grand Final. This event showcases the incredible talent and creativity of our young scientists, and I'm honoured to witness firsthand the next generation of innovators shaping our future. I want to commend Intel's commitment to fostering the energy and the intrinsic curiosity that young people have for science."

Grand Final Overall Winner

Perfect Pace,
Scoil Mhuire Fatima,
Timahoe,
Co. Laois

Runner-up Awards

Aviation,
Scoil Uí Riada, Kilcock,
Co. Kildare

From Laptops to Our Ears,
St. Raphaela's Primary School,
Stillorgan,
Co. Dublin

Stress,
Straffan NS,
Straffan, Co. Kildare

Super Sustainable Goals,
Faughart Community NS,
Dundalk, Co. Louth

Best Communication Award

The Peltier Fridge,
St. Patrick's Primary School,
Celbridge, Co. Kildare

Sustainability Award

Homemade Battery,
SN Colmcille Naofa, Athy,
Co. Kildare

Best Project Book Award

Racing Hearts,
Cratloe NS, Cratloe,
Co. Clare

Best Visual Display Award

Nature's Architect,
St. Patrick's NS,
Co. Cork

Most Innovative Award:

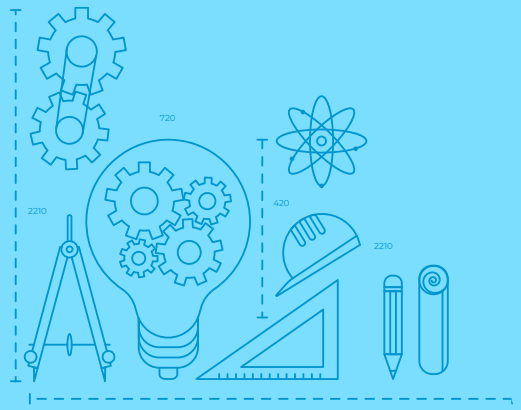
Sí an Fheamainn is Fearr – Super Seaweed,
SN Leitir Mealláin,
Lettermullan, Gaillimh

Intel Ireland partners with Engineers Ireland to inspire next generation

Intel Ireland recently renewed its partnership with Engineers Ireland to support funding of the STEPS outreach program for school students. At the forefront of this partnership is Intel's support of the STEPS program, which aims to promote interest in STEM subjects and engineering as a future career to both primary and secondary school students and saw involvement from over 100,000 students nationwide last year. Intel has been a sponsor of the STEPS program for over five years.

Through this partnership, Intel has been actively involved in various STEM outreach activities, including judging competitions, organising events, and conducting interactive career talks.

This marks the fifth year of the partnership between Intel Ireland and Engineers Ireland, showcasing their commitment to inspiring the next generation of engineers in Ireland.



Intel supported lab opens at Maynooth University

The Maynooth University Robotics Lab, supported by a donation from Intel, was officially opened in January.

The state-of-the-art lab will provide Maynooth University students with access to innovative robotic technologies and equipment used by engineers from Intel and other companies. The Robotics Lab will serve as a hub of innovation for students to bridge the gap between classroom learning and practical application, fostering creativity, pushing boundaries of technology, and empowering them to develop and refine their skills in the field of robotics.

The opening event included demonstrations of cutting-edge technologies and equipment available to students. Maynooth University Robotics Lab will play an important role in supporting students in MU's current undergraduate and Master's Degree programs in Robotics and Intelligent Devices, Electronic Engineering, and Computer Science, fostering skills and providing industry-relevant education.

The establishment of the robotics lab, which was realised with the support of Maynooth University Foundation and the Department of Electronic Engineering, further strengthens the ties between Intel and the University. Intel's donation, coupled with an investment from the University, demonstrates the positive impact on student learning and innovation that public-private partnerships can yield.

Speaking about the lab opening, Intel's Dave Selkirk, Senior Director Manufacturing Automation, said: "We are delighted to support Maynooth University in the establishment of this teaching facility. Advanced Semiconductor Manufacturing is increasingly reliant on the type of skills that this facility will provide. We look forward to continuing to work together with Maynooth University, a valued academic partner here in North Kildare."

Intel gifts Black & Irish book to local schools

Intel Ireland teamed up with the Black & Irish organisation to sponsor a significant book donation initiative aimed at promoting diversity and inclusion in local secondary schools.

The Black & Irish organisation is dedicated to advocating for the Black community in Ireland. The group recently launched its first book, "Black & Irish: Legends, Trailblazers and Everyday Heroes." Featuring profiles of 25 prominent Black Irish figures, the book highlights the accomplishments of individuals like Ruth Negga, Gavin Bazunu, Dami Hope, Emma Dabiri, Christine Buckley, and Phil Lynott.

Intel Ireland's contribution involves providing 100 copies of the book to each of the seven secondary schools in Celbridge, Leixlip, and Maynooth.

This initiative not only celebrates Black Irish figures and their achievements, but also aims to create an inclusive educational environment that fostes cultural awareness.

As an added bonus, Black & Irish will visit the recipient schools to engage with student groups interested in learning more about the organisation, providing a valuable opportunity for dialogue and understanding.

Intel awards 2024 Women in Technology Scholarships

Intel Ireland has proudly announced the newest recipients of the Women in Technology Scholarship Awards. Eleven exceptional women have been chosen as the newest Women in Technology scholars, marking another milestone in the program's 18-year history.

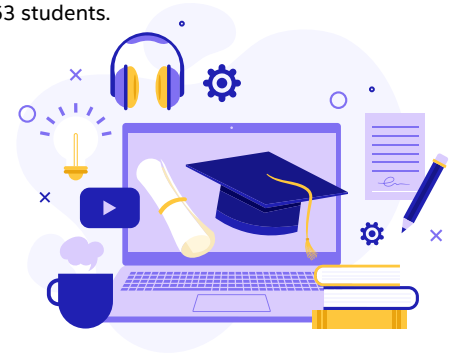
The Women in Technology scholarship program aims to encourage and empower high-achieving women to pursue careers in science and technology.

"..encourage and empower high-achieving women.."

Each scholar receives a monetary grant of €3,000, as well as opportunities for work placements at Intel's Leixlip or Shannon campuses.

Additionally, each scholar is paired with an Intel mentor to provide guidance and support in their academic and professional journey.

Since it began, the Women in Technology scholarship program has invested almost €2 million and supported 163 students.



Congratulations to all the recipients of the Women in Technology scholarships.

Michelle Ka Yi Liu,
Trinity College Dublin | Hong Kong

Faith Olopade,
Trinity College Dublin | Swords, Dublin

Aisling Murray,
Trinity College Dublin | Rathfarnham, Dublin

Nísa Ó Cuill,
Trinity College Dublin | Newtown, Kildare

Aoife Steenson,
Maynooth University | Drogheda, Louth

Jingyi Cui,
University College Dublin | Henan, China

Kalkidan Dessie,
University College Dublin | Ethiopia / Dublin

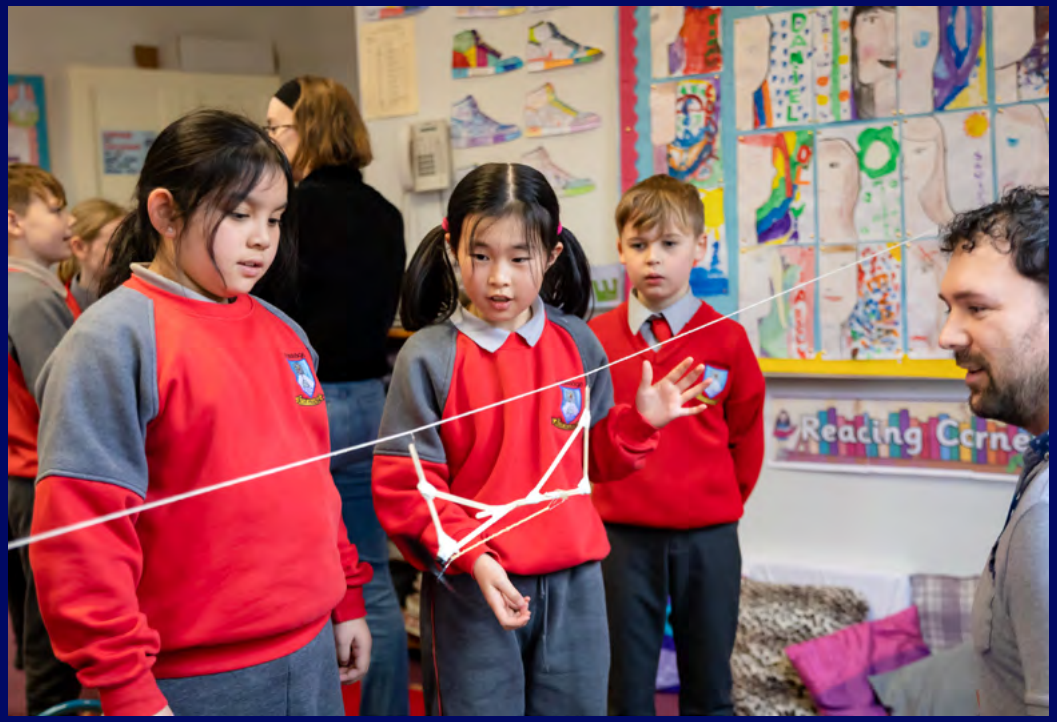
Joy Njekwe,
University College Dublin | Termonfeckin, Louth

Onosen Ikhide,
University College Dublin | Lucan, Dublin

Sadhbh Gowran,
Technical University Dublin | Sligo

Marta De La Cuadro Lozano,
Technical University Dublin | Dublin

Rhianna Frawley,
University of Limerick | Kilrush, Clare



Intel engineers visit local schools

To celebrate Engineers Week, which take places each year at the beginning of March, Intel engineers visited local primary schools in Celbridge, Leixlip, and Maynooth and engaged with almost 1000 third-class students.

During these visits, our engineers delivered presentations and assisted the students in completing hands-on activities such as the Pyramid Sling Shot and a Zipline Racer. These activities are designed to introduce the students to important skillsets including experimentation, construction, problem-solving, attention to detail, and leadership.

The participating schools are;

- Scoil Mhuire, Leixlip
- Leixlip Educate Together NS, Leixlip
- Scoil Chearbhaill Uí Dhálaigh, Leixlip
- San Carlo Senior NS, Leixlip
- Scoil Bhride, Leixlip
- Scoil Eoin Phoil, Leixlip
- Weston Primary School, Leixlip
- Presentation Girls School Maynooth, Maynooth
- Maynooth Educate Together School, Maynooth
- Maynooth Boys' NS, Maynooth
- Gaeilscoil Ui Fhiach, Maynooth
- Gaelscoil Ruairí, Maynooth
- North Kildare Educate Together School, Celbridge
- St Patricks NS, Celbridge
- Scoil Naomh Bríd, Celbridge
- Scoil Mochua, Celbridge

What do you see?

Would you like to find out more about some of the notable industrial features at our Leixlip campus? The Intel Ireland YouTube channel contains an animation series called 'What do you see' which features a number of short animations explaining exactly 'what you see' at our campus. The animations run between 1 and 2 minutes and present a visual model of specific site features. The latest animation in the series shares details about our emergency generators.

Scan the QR code to watch the videos.

Intel announces 2024 charity partnership with Autism Assistance Dogs Ireland

Every year we select a charity for our employees to dedicate their combined efforts towards. Throughout the year our employees will provide volunteer time and funds, raised through specially organised activities, to a chosen charity.

We are happy to share that **Autism Assistance Dogs Ireland (AADI)** are our signature charity for 2024.

AADI are a national charity providing highly trained Assistance dogs for children with autism. AADI dogs are specially trained to provide safety, independence & companionship to children with autism who would otherwise live in a very isolated world.

> *"...we are aiming to raise enough to funds to support the training of 2 assistance dogs."*

What is the goal?
Through the Intel charity partnership in 2024, we are aiming to raise enough to funds to support the training of 2 assistance dogs. This training takes 2 years and has a cost of €25,000 per dog.

Autism Assistance Dogs Ireland

Changing the world for children with autism

AADI dogs are specially trained to provide safety, independence & companionship to children with autism who would otherwise live in a very isolated world.

Intel Ireland employees volunteer 171,705 hours in 2023

Throughout 2023 our employees once again showed an incredible commitment to volunteering with a total of 171,705 hours being volunteered by Intel employees across Ireland.

The average number of hours volunteered by employees in Ireland was the highest per person at any Intel site in the world. This is an incredible achievement and conveys the resilience, determination, and commitment to volunteering that has been demonstrated by Intel Ireland employees.

The hours volunteered by Intel employees come in many different ways. Some take part in Intel led activities such as the Corporate Services Give Back Day which saw over 100 employees take to the streets of Leixlip giving it a major paint update and clean up. Other employees continued to support our educational programmes such as the Intel Mini Scientist and STEPS Engineers week. Many Intel employees provided volunteer their time to their local schools or charities organisations.

Over €1.4 million donated to Irish organisations

305 community organisations and schools across Ireland have received grants totalling €1,411,369 through the Intel Matching Grant programme.

The Intel Matching Grant programme sees a grant of $10 paid by the Intel Foundation for every hour that an Intel employee volunteers at an approved organisation. 2023 marked the fifth consecutive year that Intel Ireland will be donating over €1 million to community organisations across Ireland. In 2023 Intel Ireland employees volunteered just over 163,954 hours that were eligible to be matched through this initiative.

The 305 organisations include charities such as Irish Red Cross, the Samaritans and Irish Dogs for the Disabled, a variety of sporting clubs ranging from GAA to handball, and various other organisations such as animal sanctuaries and scouting groups spread across 23 different counties.

Since the beginning of the Matching Grant programme more than €12 million has been donated to organisations across Ireland.

Employees in Ireland make up just 5% of the overall Intel employee population but the Irish volunteering efforts account for 20% of Intel's global grant amount.

Kirsten Foy Mooney, leader in Leixlip Scout Group shared her thoughts about the programme: "The grant we received has been a game-changer for our organisation. By covering the running costs of our den, including essential utilities like electricity and heating, we've been able to keep membership fees affordable, ensuring that financial barriers don't prevent children from joining the Scouts.The impact of this generosity resonates throughout our community, fostering a spirit of inclusivity and enables us to focus on providing a positive experience for our members".

Throughout Intel's 50-plus year history, volunteering has been encouraged and facilitated to make it as meaningful and impactful as possible with the Matching Grant programme now 15 years into its successful existence.

Volunteering in our local communities

Our Lithography team recently visited Scoil San Carlo Junior, Leixlip to help give a vibrant makeover! The project was part of the Intel Involved programme, where employees can volunteer and give back to the communities where they live and work. Each hour of time volunteered can be tracked by our employees and leads to a $10 donation per hour made through our Matching Grants programme.

Our corporate strategic procurement team volunteered at the Church of Ireland in Maynooth. They worked to sand and paint the Church's gates, adding a fresh look to the outside of the Church.

In collaboration with the Manufacturing & Product Engineering Group global volunteer week, our local team spent some time at Derrybeg Farm. They planted crops and tended to the greenhouses, supporting the farm's mission of integrating community and agriculture. The team worked hard and benefitted the farm by taking a week's worth of work off the principal farmer.

They also provided great support to the Leixlip Youth and Community Centre by painting and prepping the outdoor space for future work. The Leixlip Youth and Community Centre works to be a positive focal point for the community of Leixlip and to strive to meet the needs of young people and the wider local community in an all-inclusive way.

Partnering to support local organisations

"..employees can volunteer and give back to the communities where they live and work."

At Easter, we celebrated the time of giving and kindness by making a donation of Easter eggs to Glenashling nursing home and Leixlip St. Vincent de Paul.

We were also delighted to make a further donation to St. Vincent de Paul recently by providing 50 brand new sleeping bags and pillows. We also had the opportunity to donate a number of new camp beds to the 1st/10th Kildare - Leixlip Scout Troop.

Managing Intel's Ultra-Pure Water systems

Meet Irene, a member of our Corporate Services team

Across Intel's 100+ sites worldwide there is a network of Corporate Services (CS) employees who are responsible for everything from site selection, security, and cafeteria services to managing the Intel campus grounds and everyday operations.

This Corporate Services group, which has thousands of employees, delivers world class factory and office infrastructure at Intel's multiple sites ensuring one of the safest and coolest workplaces in the world.
Irene O'Callaghan is an Ultra-Pure Water (UPW) engineer who joined Intel in 2021.

"...a really vital part of our facilities management.

Irene is part of the UPW team in Corporate Services. Her role is focused on the management of water coming into Intel's Leixlip campus and the filtration process it requires to pass through in order to become ultra-pure.

Even though the products that we make – microchips - are so small, they require a large amount of water in the processes of being manufactured. Water's primary use in semiconductor manufacturing is to rinse the surface of the silicon wafer between each of the manufacturing steps. Because of the sensitive nature of each process step, ultra pure water must be used.

As well as using water directly in our manufacturing process, water is also used at our Leixlip facility to support our employees onsite and indirectly in the manufacturing process for the likes of humidification, cooling, and scrubbing emissions.

Irene's day-to-day tasks are never the same. For example, she may be called upon to investigate system alarms that were recorded from a previous shift and check through all corresponding system data to ensure everything is running smoothly.

Irene explains more about what her role involves and a system she manages; "I'm a system owner at Intel for the sustaining management and continuous improvement of our existing water systems. These are the systems that manage our process water. If we have any issues getting water to site, it has the potential to directly impact our manufacturing operations. It's a really vital part of our facilities management.

One particular system that I look after is called the nanofiltration process. One of the first of its kind in Ireland, the nanofiltration system is an example of how we conserve water through on-site water reuse and results in at least 484 million litres of water being conserved per year. I also own two bulk chemical systems that we have, which are for hydrochloric acid and caustic. These systems ensure that the chemistry within the UPW plant is in order and that we're following all the parameters that are required to be achieved. As you can imagine, working with chemicals, it is paramount to ensure that all safety steps are followed."

Her role is focused on the management of water coming into Intel's Leixlip campus and the filtration process it requires to pass through in order to become ultra-pure.

Irene hails from County Cork and went to college in the University Limerick where she studied to become a chemistry and physics teacher. Before becoming an engineer in Intel, Irene began her career teaching before making the decision to go back to college where she completed a postgrad in chemical engineering in University Limerick. Irene then went on to Belgium to work as an environmental engineering before joining Intel.

Supporting Brigid 1500

To coincide with the Brigid 1500 festivities taking place this year, Intel were delighted to support two very special events at The Wonderful Barn in Leixlip, celebrating women in Irish food & music.

Speaking about the events, Intel Ireland's Community Relations Director Sarah Sexton said, "Leixlip has a hugely rich historical context – and as our hometown, we've come to understand and appreciate that. That's also true of the whole of North Kildare, and the wider county. It was a wonderful opportunity for us to support an event that brought the community together".

BRIGID 1500

Intel's Fab 34 in Ireland receives LEED® Gold Certification

As part of a commitment to sustainable construction, Intel Corporation obtained Leadership in Energy and Environmental Design ® (LEED) certification, the internationally recognised stamp of approval from the U.S. Green Building Council for Fab 34 and its associated buildings which officially opened in Ireland in September 2023.

Securing a Gold-level rating – one of the highest-level LEED certifications – Fab 34 becomes one of the largest building projects in Europe to receive this level of recognition for sustainable construction and design. The certification also represents a major milestone as Fab 34 becomes the first Intel fab to meet the Gold Rating for LEED Building Design and Construction.

The certification includes the Fab 34 manufacturing clean room, the process specific support systems building, the industrial waste treatment systems building and the process utility building. Fab 34 represents an investment of 17-billion-euro and has been designed and constructed with a number of technologies and innovations to enhance sustainability;

Heat recovery
Fab 34 features buildings that harness the power of heat rather than expelling it. The buildings use a 9-to-1 ratio of recovered heat compared to heat generated by traditional methods, such as the use of fossil fuels. Rather than rejecting the heat through cooling towers, waste heat is captured from equipment and used to heat our cleanrooms and support buildings. This extensive heat recovery system also means that less water is required to dissipate heat to the environment, resulting in enhanced overall water conservation. With Fab 34 coming into operation, Intel Ireland now returns 92% of the water it takes in at its campus to the River Liffey.

Green House Gas (GHG) reduction
Fab 34 voluntarily implements point of use GHG reduction systems and energy conservation measures that provide a 63% net reduction to the overall GHG emissions of the facility.

Solid waste recycling
More than 298,000 tons of waste has been recycled since the beginning of the project.

Water conservation
Intel recycles water internally by diverting certain streams of process water from drain for use in facilities systems. In the new factory, Fab 34, Intel has installed an advanced ultra-pure reclaim water system to enable recovery of more process waters from the factory operations, which will increase the volume of water that can be re-used and hence reduce Intel's water demand. This results in process water re-use and conservation in excess of 275 million gallons per year.

Fab 34 celebrates first Meteor Lake shipment

In recent weeks, Fab 34 proudly announced the successful shipments of its first Intel® Core™ Ultra processors, code named Meteor Lake.

This product signifies the company's largest architectural shift in 40 years, and is Intel's most power-efficient processor, ushering in the age of the AI PC and a new generation of personal computers with dedicated AI and machine learning capabilities. This marks a significant milestone for Intel on our journey to deliver five process nodes in four years, as we continue to accelerate the delivery of core products and maintain an intense focus on delivering a predictable cadence of leadership products for our customers.

Intel is on a path to create a first of its kind end-to-end leading-edge semiconductor value chain in Europe.

With nearly 35 years of operational success, Intel's manufacturing site in Ireland is one of the largest and most advanced semiconductor operations in Europe, and has played a vital role in delivering several successful technology transfers.

The Fab 34 facility was officially opened on September 29th, 2023, and marks the first use of extreme ultraviolet (EUV) technology in high-volume manufacturing in Europe. The factory represents an investment of 17 billion euros and doubles Ireland's existing manufacturing space.

Intel Engineering Bootcamp inspires young minds

Intel Ireland invited 52 Transition Year secondary school students from two local schools in North Kildare, St. Wolstan's Community School in Celbridge, and Confey College Leixlip, to Intel's Engineering Bootcamp. These week-long bootcamps offered a dynamic introduction to the world of STEM, focusing particularly on engineering.

The Intel Engineering Bootcamp aims to broaden students' awareness of engineering pathways post-secondary school through practical activities and experiences. The programme covered diverse topics, including science, engineering, computing, and career development, equipping students with valuable interdisciplinary skills.

"...a fantastic opportunity for students.."

Over the two weeks, students engaged in interactive workshops led by undergraduate mechatronics students, explored future technologies with DCU PhD students, and learned about drone mapping and autonomous driving. Intel employees and researchers shared insights into their current projects, and students toured the DCU campus, including a visit to the Robotics Lab.

Ms. Rita Reynold's from Confey College said, 'Participating in this programme offers a fantastic opportunity for students, whether they are interested in a career in STEM or are still undecided. Feedback from our students indicated that for many, it was the highlight of their transition year."

Overall, this programme not only introduces students to the field of Electronic Engineering but also equips them with valuable experiences and knowledge that will aid in their academic and professional journeys. Students found the experience, fun, engaging and enjoyable, and it gave them valuable insights into different areas of Engineering. These Bootcamps encourage students to take up Science subjects and to go into the field of Engineering.

Feedback from our students indicated that for many, it was the highlight of their transition year.

New project seeks to deliver next-gen 6G networks

In a remarkable advancement for the future of telecommunications, CONNECT, in collaboration with industry partners including Intel, have embarked on the ENERGISE project, funded by a €2.3 million grant from the Disruptive Technologies Innovation Fund (DTIF). This pioneering initiative aims to drastically reduce energy consumption in mobile networks, paving the way for sustainable 6G evolution.

The ENERGISE project will focus on developing innovative solutions to tackle the energy challenges associated with future networks, providing a path for sustainable development of OpenRAN. Along with global leader, Intel, the team from CONNECT, the SFI research Centre for Future Networks at Trinity, will work with experts from Tyndall National Institute, Software Radio System, VMWare and Dell EMC. As the digital world rapidly evolves, the demand for more efficient and sustainable network technologies has never been greater. However, the current energy consumption of the telecoms industry, estimated at 2-4% of global energy, is escalating at twice the rate of other contributors.

The Radio Access Network (RAN) accounts for 70-80% of total cellular network energy consumption, posing sustainability challenges. Open RAN technology has the potential to reduce energy consumption considerably, by leveraging AI to automate and optimise network management. In addition, by allowing multiple vendors to contribute to an end-to-end radio system, Open RAN fosters competition, reduces costs, and encourages innovation.

Ireland employees named as Intel Safety Stars

To coincide with World Day for Safety and Health at Work Intel recognised a number of safety stars from our sites around the world. Amongst those recognised as Safety Stars were Leixlip based employees **Eoin Gleeson, Graeme Burgess, Jason Earls and Kieran Sharkey.**

Eoin was recognised for his proactive approach to safety improvement. He achieved significant enhancements in critical safety areas by developed an innovative platform ladder for maintenance tasks and safety protocol optimisation.

Graeme was recognised for making significant contributions to workplace safety. He developed innovative toolset features, including ergonomic maintenance Cartwheels and a finger safety spring block.

Jason created a safety dashboard for a consolidated safety tracking system and Kieran created a safer mobile platform for high-level mechanical work.

Congratulations also to members of **Irelands' Corporate Services team** who were recognised with a safety star team award for their work in addressing safety incidents.

Upgrade of the R148 Leixlip to Maynooth road

A section of the R148, which lies between Leixlip and Maynooth, was realigned in 2019 to minimise the impact of construction activity happening at the Intel Ireland campus in Leixlip. With the majority of the Fab 34 works now complete, the R148 will be reinstated to its original location, with a number of significant enhancements. Roadworks to reinstate the R148 to its original location commenced in April 2024 and will be ongoing through the remainder of the year.

The reinstatement will allow for improved traffic flow, capacity and connectivity to support the local area for years to come.

The existing roundabout at the intersection of the R148 and R449 will be upgraded to a new T Junction, enabling better traffic flows. The reinstated road will feature one through-flow lane alongside two filter lanes at the entrances of the Intel campus and a new, additional entrance to Intel will ease traffic congestion in the area.

The road will feature three upgraded pedestrian junctions with smart signalling to maximise vehicle flows and improve safety. All junctions located between Kellystown Lane and Louisa Bridge will be synchronised. There will be a largely separated cycle and pedestrian track on both sides of the road and a bus stop, set-back from the main roadway, will feature on both sides of the road.

Elements of the R148 roadway from its original location will be reused to eliminate waste, although a complete surface replacement will still be carried out. A full landscaping design has been created to surround the upgraded road and the road will provide access to a Greenway cycle-track entrance at the Blakestown Level Crossing, and adjacent to the R449.

The roadworks will involve temporary diversions and narrowing of lanes. Where possible, roadworks will be completed outside of peak times to minimise disruptions and avoid impacts on traffic. Continuous traffic monitoring will be in place to promptly identify and address any issues that may arise.

Full details about the upgrade, including a video which captures the new road as it will be experienced by users, can be found at www.intel.ie/R148.

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