

# YOUR UNIVERSITY

SAVING  
**LIVES**  
IN SURREY!



FINDING  
LIFE ON  
**MARS?**



UNIVERSITY & BBC LEAD  
£2BILLION MEDIA REVOLUTION



FROM GUILDFORD TO  
CORONATION STREET



HELPING THE  
UNITED NATIONS TO  
SUSTAINABLE TOURISM



TO SAVE A  
HEDGEHOG –  
THINK LIKE A  
HEDGEHOG!







## CONTENTS



## WELCOME TO YOUR UNIVERSITY

Thank you for taking the time to pick up this newly refreshed edition of our newspaper! Created by the University of Surrey, it's one of several ways we reach out to our local community.

Our aim is to let you know about the good work happening on campus, whether it's ground-breaking scientific research, graduate success stories or students raising money for local charities.

Your University is one of an increasing number of ways we engage with our home town. From social media platforms to participating in our local events and research, there are lots of ways to access our activities, make a difference to society or just learn something new.

The University is very much a reflection of the diverse, innovative and inquisitive world we live in – and the stories in this issue endorse that.

On page 4, we report on how Alexandra Mardell swapped Guildford's cobbled high street for Coronation Street. On page 5, we speak to space engineer Abbie Hutty, who's helping the search for life

on Mars. Meanwhile, on page 7, we talk to Professor Richard Lyon MBE, who helps save lives as part of Air Ambulance Kent Surrey Sussex.

This edition also reports on sustainable fashion (page 14), raising money and resources for those in need (pages 4-6), the economic contribution we make to the UK economy (page 3), and projects helping the G20 (page 12) and the BBC (page 11).

And the common factor in all of these? The University of Surrey.

We hope there'll be something you find intriguing or engaging in this issue. Please let us know if you do.

All the best.

Ross Kelway,  
Public Engagement Manager

R.K



Read about our latest endeavours, from saving lives with AAKSS (above) to new research on our Guildford campus (below)



“The University is very much a reflection of the diverse, innovative and inquisitive world we live in – and the stories in this issue endorse that.”

## YOU CAN CONTACT US

The last year has been immensely challenging. We have risen to these hardships as a community. The University of Surrey wants to engage with Guildford residents to make our town the best it can be. Join us. Take part. Contribute to the conversation via our events, research and activities.

✉ publicengagement@surrey.ac.uk

🖱 [surrey.ac.uk/community](https://surrey.ac.uk/community)

📱 @UniOfSurreyCPE



## POWERING THE POST-PANDEMIC RECOVERY

The University has established a new Centre for Innovation and Commercialisation to support business and drive the UK on its road to post-Covid-19 recovery.

“Our University produces wonderful research every day,” says Caroline Fleming, our Co-Director of Innovation Strategy. “Much of that contributes to the sum of human knowledge.

“But we also strive to find ways to create economic value, jobs and livelihoods.”

The University is already a major contributor to national wealth and employment generation. According to a detailed new economic analysis, the institution is responsible for creating a staggering £1.84bn in economic value – measured on a gross value added (GVA\*\*) basis – and supporting 19,430 jobs through direct and indirect contributions to the UK economy. Some £1.2bn in GVA and nearly 15,000 of those jobs are delivered in our home county.

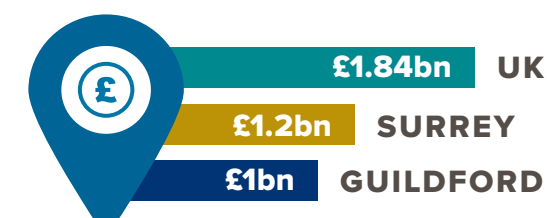
With the launch of its new Centre, which will have Associate Dean International Professor Yu Xiong as its director, the University is not looking back on past glories. It's establishing the role it will play in building back a better future.

Caroline continues: “As the UK looks for ways of driving the growth and economic success that will help us recover fast from the pandemic, our new Centre will add another powerful means for us to support the people and businesses who form our wider family.

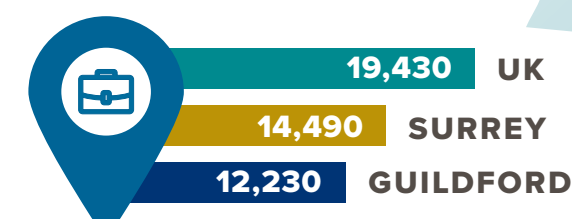
“We'll continue to create value and more jobs in Guildford, Surrey, the UK and beyond.”

**DID YOU KNOW THAT IN 2018-2019\*, THE UNIVERSITY WAS RESPONSIBLE FOR...**

## GVA contribution



## Number of jobs supported



\* Source: University of Surrey Economic Impact 2018-19 report.

\*\* GVA: Gross Value Added is a measure of the monetary contribution the University adds to the economy through its operations. This is calculated by subtracting non-staff-related expenditure from total turnover.



## GUILDFORD RESIDENTS LET'S CHAT!

The University is inviting those living in Guildford Borough to take part in its seventh annual Guildford Residents' Survey. Launched in 2015, the survey provides valuable insight, feedback and ideas to strengthen the links between the University and its home town.

Join more than 1,000 local residents, who each year have taken part and had their say on a range of subjects relating to the University. Feedback will inform our local engagement activities over the next year, allowing us to know what we're doing well – and what we could do better.

As an added incentive, those who complete the survey stand a chance to win one of three £100 cash prizes. Full information and the terms and conditions are available by accessing the survey link below.

Ross Kelway, Public Engagement Manager at the University of Surrey, says: “It's incredibly important that we not only support our own staff and students, but that we also support our local community. However, we can only do this if we understand what matters to Guildford residents. So please take this opportunity to tell us.”

The survey closes at **5pm on 20 June 2021**. To complete it, please visit: [surrey.ac.uk/guildfordsurvey2021](https://surrey.ac.uk/guildfordsurvey2021)





## FROM GUILDFORD TO CORONATION STREET

Alexandra Mardell's starring in the biggest show on TV. She's also a graduate of Guildford School of Acting...

Perhaps it's no surprise to find Leeds-born actress Alexandra treading the cobbles of Britain's most famous TV street. After all, she trained at Guildford School of Acting (GSA), which became part of the University in 2010, so the cobbles of our own high street were already a familiar sight.

Alexandra graduated from GSA in 2015 and landed the role of hair stylist Emma Brooker in *Corrie* in 2018. Her character's bubbly personality and naivety made her an instant hit with viewers. A 2019 British Soap Award and a nomination at the National TV Awards the same year followed. Then viewers learnt Emma was the secret daughter of *Street* favourite Steve

McDonald, making her a member of one of the soap's most loved families.

Despite the fame and the accolades, however, Alexandra still fondly remembers her time at GSA.

"Studying at GSA helped me develop my skills and prepare me for auditions," she recalls. "I also remember running around outside through the mud and leaves in Ian Ricketts' class when we were all being our 'inner child'."

"There are so many happy memories!"

Alexandra has advice for those wanting to follow in her footsteps, too.

She says: "Work hard, be prepared and believe in yourself!"



Alexandra (left) graduated from GSA and now stars alongside *Coronation Street* stalwarts Bill Roache and Simon Gregson (above). Credit: ITV

## KICKSTARTING ACTION ON YOUTH EMPLOYMENT

The University has been approved as a gateway provider for a government programme encouraging small, local companies to hire unemployed youngsters in the community.

The Kickstart Scheme, which was launched in September 2020 by the Department of Work and Pensions, will collaborate with the University through Student Enterprise, our own business support hub.

Our aim is to help those aged from 16-24, who are receiving Universal Credit and are at risk of long-term unemployment, find meaningful work, raise their aspirations and improve their overall future career prospects.

It's also a fantastic opportunity for small and medium-sized businesses in the area to receive government funding to get more staff on board on six-month placements. This is something that they may not have previously been eligible for due to their size.

Some 13 organisations within Guildford are involved in the scheme to date, including our locally nurtured SETSquared companies at the

Surrey Research Park, plus our Student Enterprise start-ups and a variety of other local businesses.

In the coming months, the University is looking forward to applying for work placements on behalf of more companies in the local area.

Who knows? It could involve you!

Our aim is to help those aged 16-24, who are receiving Universal Credit and are at risk of long-term unemployment, find meaningful work, raise their aspirations and improve their overall future career prospects.



## IS THERE LIFE ON MARS? OUR ABBIE'S FINDING OUT...

If you've been following the stellar exploits of NASA's Perseverance mission on Mars, you'll be intrigued to learn our very own Red Planet explorer, Abbie Hutty, launched her career at Surrey.

Mechanical engineering graduate Abbie specialises in space engineering. She quickly rose to the top of her field and worked as the Lead Structures Engineer and Delivery Manager on the European Space Agency (ESA) ExoMars Rover vehicle. This is due to launch in 2022 and it will be the first mission to combine the capabilities to move across the surface and study Mars in depth.

Abbie's also working on the small ESA Sample Fetch Rover.

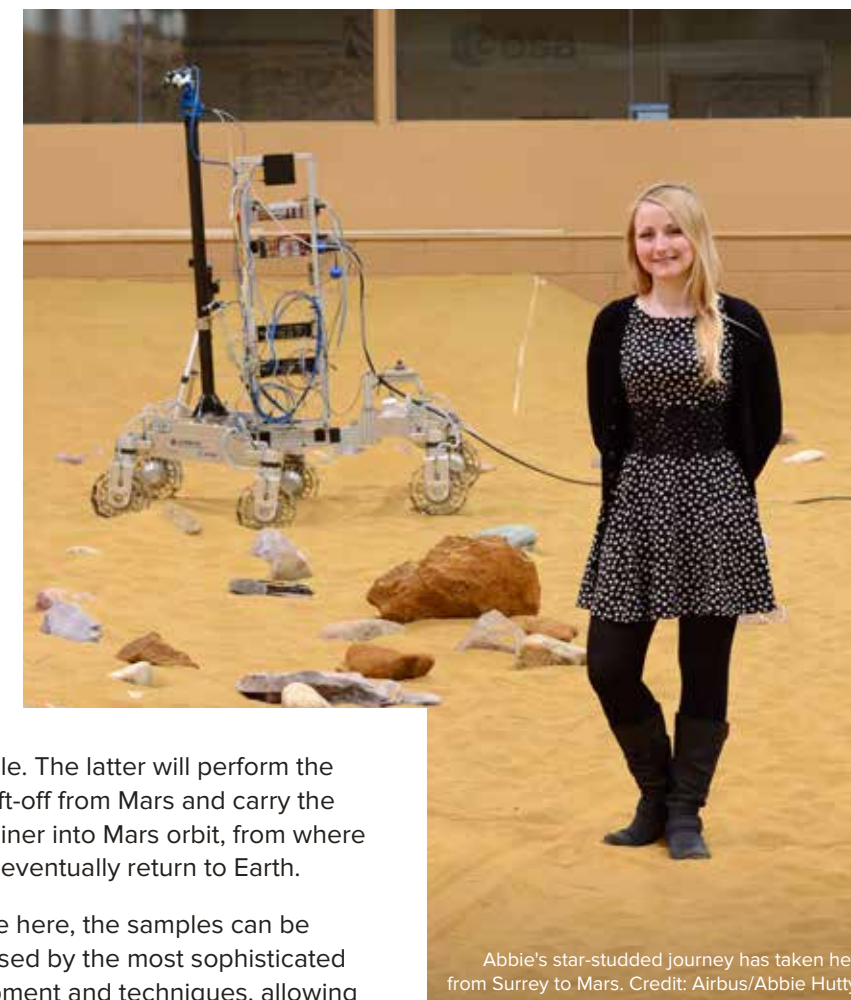
"This will head out to retrieve the cached samples from Perseverance and allow them to be brought back to Earth," explains Abbie. "To do this, the Rover needs to locate them, recover them and load them into a single large canister on the Mars Ascent

Vehicle. The latter will perform the first lift-off from Mars and carry the container into Mars orbit, from where it will eventually return to Earth.

"Once here, the samples can be analysed by the most sophisticated equipment and techniques, allowing teams of scientists to verify any results independently.

"In addition, as our equipment improves and new advances are made, samples can be reanalysed and new information extracted."

Thanks to the amazing work of Abbie and those like her, we may find the answer to a most pressing question, one asked by David Bowie and many members of the scientific community: Is there life on Mars?



Abbie's star-studded journey has taken her from Surrey to Mars. Credit: Airbus/Abbie Hutty

The ESA Sample Fetch Rover... will head out to Mars to retrieve the cached samples from Perseverance and allow them to be brought back to Earth for analysis.



## SPORTS PARK SERVES UP SCHOOLS PROGRAMME

Surrey Sports Park (SSP) will help schoolchildren be more active over the coming months as part of a new and exciting Schools Programme for 2021. SSP will work with local schools to help inspire pupils of all abilities to increase their physical activity through a wide selection of sports.

To achieve this, SSP has announced the return of its popular Multi-Sport Days, where children aged 8+ can enjoy a multitude of sporting activities in a single day. Schools can choose from a variety of different packages, then handpick the sports that SSP's qualified coaching team will deliver over the course of the one-day visit.

All local education institutions are invited to use the Park's offers throughout the year, including term-time swimming lessons, facility hire and Coaching Roadshows, where SSP staff visit schools to lead activity sessions.

SSP is also aiming to mark National Schools Sports Week in 2021 by engaging with schools and pupils during a week annually dedicated to the importance of sport and physical education.

The Youth Sports Trust organises the event and SSP will be doing their bit from 21 June to help children become more active while communicating the importance of sport to general wellbeing.

## TECH BOOST IS KEY TO HELP LOCAL HOMELESS

Digital exclusion is a growing problem that continues to exacerbate social inequality. So the University has teamed up with SocialBox.Biz to donate laptops and desktops no longer in use to their Laptops for the Homeless initiative.

Some 70 machines that have been replaced by newer models – or have otherwise become surplus – have already been donated by the University and upgraded ready for use again.

The need has been particularly acute during the pandemic, where there has been a shift towards video-conferencing platforms as a means of doing business, conducting recruitment processes and offering services. However, partners in the project say that more computers are always needed, given the nature of digital exclusion in the world today.

Real Change Guildford, an organisation that supports the homeless and has the University as one of its ambassadors, will take the lead in matching the refreshed laptops with people who need them. This will ensure they have an additional and much-needed resource when finding jobs, accessing education and keeping in touch with friends and family.

## PROVIDING FOOD FOR THOUGHT

Our Widening Participation and Outreach team has been doing its bit in response to the Free School Meals movement. Supported by the Students' Union and staff at Surrey Sports Park, we've been working throughout the school holidays and half terms to support vulnerable youngsters who'd usually receive free school meals.

Our teams gave out packed lunches and provided activity boxes to keep schoolchildren busy during the Christmas break. In total, 595 boxes were delivered across five schools. This is part of the ongoing work we're developing to support Surrey schools in closing the attainment gap for those from this under-represented group.







A selection of some of the work sold in the auction  
Credit: The Prostate Project

## FUNDRAISING FOR PROSTATE CANCER RESEARCH

**We recently teamed up with local charity The Prostate Project to raise funds towards a new piece of equipment for our advanced prostate cancer research.**

The IncuCyte SX5 Live-Cell analysis system gathers and analyses images of tumour cells around the clock. This means researchers can examine the effects of anti-cancer agents and 'cancer-killing' viruses that are used to treat the disease. Knowledge gained from this analysis will fast-track research at the University, improving outcomes for men with advanced prostate cancer.

To help fundraise for this vital piece of equipment, we helped the charity hold an online art auction. We contacted 40 Surrey-based artists, who donated more than 90 pieces of original work. Run throughout December 2020, the event raised nearly £4,500 towards the new equipment.

Dr Nicola Annels, Senior Research Fellow within the Targeted Cancer Therapy Group who have now received the system, said:

"I'd like to extend my thanks to The Prostate Project. Their fundraising campaigns are invaluable for equipping our lab with state-of-the-art technology that greatly advances our understanding of the disease and development of targeted treatments."

This latest campaign builds on our long-standing relationship with the charity, which has previously donated £270,000 worth of equipment to help us study the interactions between immune and cancerous cells.



## STUDENTS' UNION DIGS DEEP FOR LOCAL CHARITIES

Despite the pandemic, our Students' Union has been busy helping out. Led by Community Vice-President Izzy Watkins, Surrey students have been contributing to local initiatives in a variety of ways.

The Get Giving Guildford food collection has been running again and students have donated more than 40,000 items to local food banks since its 2015 launch.

Meanwhile, 15 students have signed up as Community Reps, a voluntary position for those wishing to impact their locality and engage with residents in their area of the town.

Raising and Giving – or RAG – is the annual student fundraiser. This generated £1,127 for the Lebanese Red Cross in the aftermath of the 2020 Beirut port explosion.

Closer to home, chosen charities the Alzheimer's Society and the Children's Trust will benefit from a fundraiser in May 2021.

## BOOK QUEST ENCOURAGES LITERARY ADVENTURES FOR YOUNGSTERS

The University launched an award-winning programme to inspire reading and support educational access and literacy among local schoolchildren.

Surrey's Widening Participation and Outreach team and the Higher Education Outreach Network have won a national award, recognising Best Practice Collaboration for The Book Quest. This innovative virtual book project gave students aged 11-16 greater access to literature, as well as expanding their reading range by introducing new authors and diverse topics.

Along with receiving a book every four weeks, students were encouraged to engage on a weekly basis through a virtual platform.

This featured a range of activities and resources to help them learn in a variety of ways, including cross-curricular activities and expeditions – which has been especially valuable during recent school closures.

From introducing new vocabulary to fresh techniques for writing, students embark on a literary adventure in learning that brings new insight, discovery and enjoyment.

The success of this initiative and the Covid-19 restrictions introduced in early 2021 mean the teams plan to run The Book Quest again, aiming to launch to schools across Surrey, opening a new chapter in this ongoing story.

## TACKLING CARBON EMISSIONS ACROSS THE COUNTY

Experts from our Centre for Environment and Sustainability have joined a Surrey-wide initiative to fight climate change.

Founded in 2019, the Surrey Climate Commission aims to unite organisations across the county to help the UK's drive to net-zero greenhouse emissions by 2050.

The University, represented by Professor Richard Murphy and Senior Lecturer Ian Christie, was a founding member, and works alongside partner organisations such as Surrey County Council, Siemens and the Diocese of Guildford.

The Commission has announced the forthcoming publication of its report on the county's carbon footprint.

"The transition to a net-zero carbon economy and society in Surrey – and beyond – calls for big changes," says Richard. "To help us understand the actions we need to take, it's vital we have a clear understanding of our present position."

"For example, a key finding is car travel and transport are responsible for half of Surrey's carbon emissions."

In addition to this work, our Centre has started a new project exploring the challenges for local governance of putting ambitious climate policies into practice. The project will inform local thinking in this crucial year for climate policy, culminating in the global COP26 event co-hosted by the UK.



## HIGH-FLYING RICHARD TO THE RESCUE

**Professor Richard Lyon MBE teaches at the University and saves lives as Associate Medical Director of Air Ambulance Kent, Surrey and Sussex (AAKSS).**

### Why emergency medicine?

I joined the Fire Service as a cadet. One night, while rescuing a lady from a crashed car, I saw how doctors at the scene of the accident delivered truly life-saving care. From that moment on, emergency medicine was for me.

### What brought you to the University?

They invited me to apply for a Chair in Pre-hospital Emergency Medicine. I'm passionate about doing research on the frontline. My mother and father also studied and met at Surrey, which was a great additional connection.

### How did you get involved with AAKSS?

I worked there as a doctor in 2011. I've been involved ever since, delivering emergency care, training new clinicians, and running the research and innovation programme.

### Did the pandemic increase the workload for AAKSS?

During lockdown periods, we've actually seen a decrease in the number of accidents. In between, however, we've been very busy. We've also put on a third clinical team, which undertakes intensive care transfers across the south-east. So far, we've done more than 75 of these.

### What are the current challenges facing AAKSS?

Covid-19 means we've had to adapt to new personal protective equipment and ways of working. As a charity, we're dependent on the support of the public to keep us flying. We have ambitious plans to trial new video technology to support air ambulance dispatch, develop pre-hospital blood transfusion and explore new ways of actually delivering critical care inside the helicopters themselves.

**If you want to support the ongoing work of Richard and AAKSS, please visit: [aakss.org.uk](http://aakss.org.uk)**



Credit: AAKSS



Top: AAKSS staff members Maya and Ben return from another emergency callout

Left: Richard says AAKSS needs public support to continue its work

## LOCAL BUSINESSES SHINE AT GUILDFORD INNOVATION AWARDS

**The achievements of organisations and individuals across the borough who turned 2020 into 'our Year of Innovation' were celebrated in a ceremony hosted by Surrey academic and Radio 4 presenter Jim Al-Khalili OBE.**

The Most Outstanding Innovation and Emerging Technologies awards both went to Securium, a cyber intelligence company that provides online safety technologies to protect vulnerable people. This University spin-out company was founded by former Surrey computer sciences masters and PhD student, Dr Anna Vartapetian.

Runner-up for Most Outstanding Innovation was NVH Global for its commercialisation of a sustainable process that reduces energy consumption in waste water treatment.

Local businesses were also recognised across categories like

Innovation in Retail, Caring for the Environment and Digital Marketing.

There was a new Response to Covid-19 Award, too, which was won by Smart Separations, creator of ViraTeg™, a surface coating that destroys 99.999% of microbes and viruses – including Covid-19.

Dr Malcolm Parry OBE, CEO of Surrey Research Park and one of the event's judges, received a Lifetime Achievement Award. This acknowledged his immense contribution to Surrey Research Park and the science park community over the last 40 years.



Professor Ravi Silva adds another accolade to his already honour-laden CV with a CBE.  
Credit: Paul Stead

## QUEEN HONOURS SURREY ACADEMIC

Professor Ravi Silva, Director of the Advanced Technology Institute at the University of Surrey, has been awarded a CBE. The accolade has been given in recognition of his outstanding services to science, education and research across the world for more than three decades.

Passionate about the contributions solar energy can make to net-zero carbon targets, Professor Silva's research into energy materials plays a key role in next-generation solar cells and energy storage. Advocates believe that adopting a solar energy future could make solar electricity a free energy source within 20 years.





Melaine says she's "proud to be influencing future generations of healthcare professionals."

Credit: Paul Stead



“

My mum was diagnosed with advanced cancer. I nursed her at home, giving her the best care I could.

## CELEBRATING OUR NURSES AND MIDWIVES

2020 marked the International Year of the Nurse and the Midwife. To celebrate, we asked cancer nurse Professor Melaine Coward to share her experiences, why she chose her career and what inspired her to help others.

"At age 13, I decided I wanted to be a nurse. I started volunteering at my local cottage hospital, feeding and washing people, and I loved it. Five years later, my parents dropped me off at King's College Hospital to start my on-the-job nurse training.

"Once I qualified, I worked on a haematology ward, caring for patients with leukaemia, lymphoma and sickle cell disease. One of these patients told me: 'You're made to be a cancer nurse. Go and follow your dream, Melaine!' And that's exactly what I did.

"I went off to the Royal Marsden Hospital and began a three-year degree. At the time, my mum was diagnosed with advanced cancer. I nursed her at home, giving her the best care I could. Sadly, she never saw me complete my degree. I think she'd be a bit shocked, albeit proud, of what I've done since.

"I became a manager in a large cancer centre and I helped the local university set up a cancer nursing course. Some 18 months later, I knew I could make a bigger difference in education, so I stepped away from clinical practice and started my first job at Surrey in 2001.

"Fast-forward 20 years and here I am, running one of the best schools for healthcare in the country, where every day is different. I work hard and I feel really proud to be influencing future generations of healthcare professionals."

### NURSING SCHOLARSHIPS AVAILABLE

There's good news if you're a mature student (25 years and over) living in Guildford and the surrounding area, and you want to study adult, mental health or children's nursing or midwifery at the University of Surrey.

The Ted Adams Trust scholarship is accepting applications for 2022 entry. Successful candidates will be awarded a maximum of £3,000 each year of study, up to a total of £9,000.

Further details are available at: [tedadamstrust.org.uk](https://tedadamstrust.org.uk)

## AN INSPIRATIONAL ROLE MODEL: PROFESSOR DAPHNE JACKSON'S STELLAR JOURNEY AND LEGACY

In 1971, Mars 3 made it to the surface of the Red Planet. At our University, a less globally heralded but still significant piece of history was also being made...

This was the year Daphne Jackson became the first female Professor of Physics in the UK, and Surrey are marking this 50-year anniversary with a series of events celebrating her life.

Not only was Daphne a distinguished theoretical nuclear physicist, she was also a passionate campaigner for women in science and engineering. The scheme she launched to help women who'd taken career breaks get back into research has already supported more than 400 women.

She famously said: "Imagine a society that would allow Marie Curie to stack shelves in a supermarket simply because she took a career break for family reasons."

Acclaimed physicist and Surrey graduate Dr Shakardokht Jafari is one of many female academics paying tribute.

"Daphne's story resonates with me because I was the first woman in Afghanistan to obtain a PhD in medical physics," says Dr Jafari.

"At Surrey, I saw her picture on the wall every day and she became a great role model for me."

"Daphne Jackson was a role model for me," says Surrey PhD graduate **Shakardokht Jafari**

Credit: SETSquared Partnership



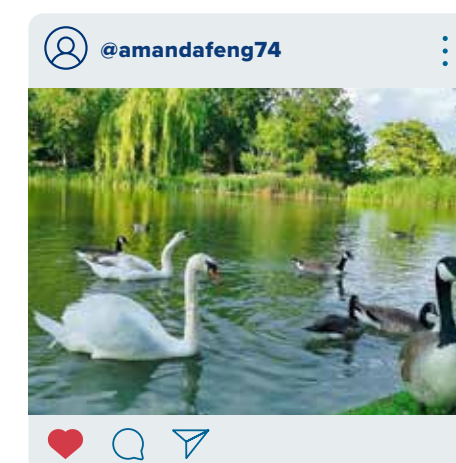
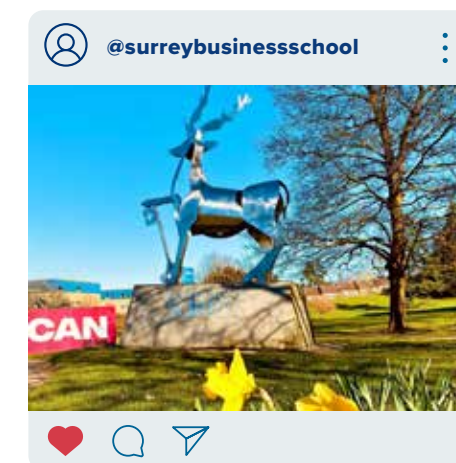
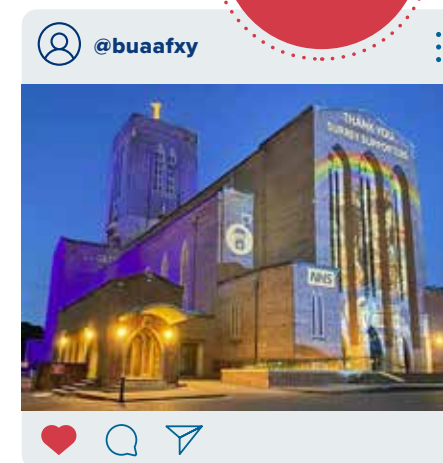
## OUR FINEST MOMENTS SNAPPED ON INSTAGRAM



We've scoured Instagram and found the best images from our many staff, students and followers from the last six months.

We get a glimpse of life during the pandemic, with glimmers of hope and optimism sparkling through. We hope you enjoy them as much as we have.

If you'd like to participate and follow us on Instagram, please check out **@uniofsurrey** and tag **#uniofsurrey** for a chance to feature.



Credit: Egor Kamelev

## NATURE AND WELLBEING

How does nature contribute to wellbeing? We're conducting a study to explore the relationship between people, local nature and wellbeing in Guildford – and we need your help!

We've created a survey to learn what local people think. If you'd like to take part, please visit: [bit.ly/3a1oROY](https://bit.ly/3a1oROY)

### TO SAVE A HEDGEHOG – THINK LIKE A HEDGEHOG!

The loss of habitat is the biggest issue facing British hedgehogs. Fortunately, Surrey is a silver-accredited Hedgehog Friendly Campus.

So here's our list on how you can help the spiky sweethearts.

- 1 'Link' your garden – dig a small hole at the base of your garden wall or fence to help hedgehogs roam.
- 2 Did you know hedgehogs can swim? Make your pond safe – create an 'exit ramp' from simple materials.
- 3 Establish a 'wild corner' – this leaves hedgehogs undisturbed and encourages their favourite snack: insects!
- 4 Remove netting and litter – hedgehogs can easily get tangled, injured or killed.
- 5 Put out food and water – meaty cat food, hedgehog food and chopped, unsalted peanuts are all suitable.
- 6 Stop using slug pellets in the garden – these are renowned for killing hedgehogs.
- 7 Check before strimming – hedgehogs won't run away from the noise of a mower or strimmer. A single hedgehog can be easily moved – but use gloves! For advice on how to move an entire hedgehog family, call the British Hedgehog Preservation Society on **01584 890801**.
- 8 Be careful with bonfires – hedgehogs hibernate and nest in piles of debris. So, build the fire – or relocate it – on the day of burning.
- 9 Build a log pile – this encourages all kinds of wildlife and insects and provides nesting opportunities all year round – and it's so easy to make!
- 10 Become a Hedgehog Champion. Find out more at: [hedgehogstreet.org](https://hedgehogstreet.org)

Credit: Simon Smith

## WILDLIFE IN GUILDFORD

### PHOTO COMPETITION

We've been looking for hedgehogs on campus this spring. But what have you seen out and about?

Send in your photos to [publicengagement@surrey.ac.uk](mailto:publicengagement@surrey.ac.uk) and the top images will be featured in the next issue of *Your University*, with the best image winning a prize.



For full details please visit: [surrey.ac.uk/YourUniversityCompetition](https://surrey.ac.uk/YourUniversityCompetition)





## NEWS IN BRIEF



### GOLD STANDARD IN CYBER SECURITY

The University is one of the first institutions named an Academic Centre of Excellence in Cyber Security Education by the National Cyber Security Centre. Only seven UK universities have been awarded this accolade in a new government programme that recognises pioneering institutions. Surrey was praised for delivering first-rate cyber security education on campus and promoting cyber skills in our local communities.

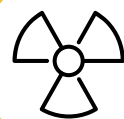
### SAFER HOUSING FOR LGBTQI+ RESIDENTS



Together with HouseProud – the nationwide network for LGBTQI+ professionals working in the housing sector – the University has developed the easy-to-adopt HouseProud Pledge Scheme. This helps foster better relations between housing associations and LGBTQI+ residents, who continue to experience discrimination in housing despite a change in equality laws. The scheme has also been endorsed by the Deputy Mayor for Housing and Residential Development, London.

### NEW X-RAY DETECTOR TO HELP CANCER PATIENTS

A new hybrid X-ray detector developed by the University of Surrey could lead to more accurate cancer therapy and better patient survival rates. Innovations in the device include slightly higher sensitivity for X-rays than is typically used for radiotherapy and fast response characteristics. This is 'once in a lifetime' technology – and its many applications range from low dose mammography to high-speed border security.



### ROADMAP TO A BRIGHTER FUTURE FOR TRANSPORT



How will our roads and bridges fare in a world where natural hazards and disasters are increasing? Do we have the systems and processes in place to warn, act and react effectively? A Surrey team investigating infrastructure resilience is driving research to find out. The project combines traffic management techniques with revolutionary AI and 5G technologies for sophisticated data assessment, meaning faster repair and recovery of our transport networks.

## LEARNING LESSONS LOCALLY: GCARE'S DRIVE FOR CLEANER AIR

Solving the problem of air pollution may require radical changes in the way we live and work. The team at GCARE, however, think differently. Can awareness and small changes – plus a little help from Mother Nature – make a big difference?

From commuting along different routes, to using the covers on prams to protect babies, and planting 'green infrastructure' like hedges, walls and roofs that use vegetation to absorb more car emissions, guidance from the Global Centre for Clean Air Research (GCARE) is edging us all closer to purer air.

GCARE's Guildford Living Lab has been working with Sandfield Parent Group and the local community to monitor and improve air quality in and around Sandfield Primary School in Guildford, which is situated on the corner of two busy roads. GCARE has installed a multi-sensor unit on the school's premises and data from this may support the planting of green barriers around the school to reduce air pollution exposure.

This follows closely on GCARE's success as part of a project to design and implement bespoke solutions to improve the air quality for children and teachers in and around five London schools in the Lambeth area.



Credit: Grant Pritchard

## IMPROVING CARE FOR PATIENTS WITH ACUTE DEPRESSION

Surrey's clinical psychologists will test the effectiveness of a mindfulness-based cognitive therapy (MBCT) to help patients who haven't responded to treatment for acute depression.

The £350,000 National Institute for Health Research grant will help fund a two-year project for researchers looking to test the clinical effectiveness and cost-benefit of MBCT. This treatment is already recommended for relapse prevention in patients who have come to the end of the Increasing Access to Psychological Therapies (IAPT) care pathway on the NHS, and are still suffering from significant symptoms.

The multidisciplinary team will be led by Surrey's Professor of Clinical Psychology, Dr Thorsten Barnhofer.

He'll work with research partners from King's College London, the University of Exeter and the University of Sussex. The study will be sponsored by the Sussex Partnership NHS Foundation Trust.

Research into mental health treatments is more vital than ever due to the current pandemic's impact on people's mental health, and non-response to currently available interventions is a significant problem.

If the results of the venture are positive, MBCT could be introduced to IAPT services nationwide.



## NEW 20-MINUTE COVID-19 TEST

### TRIALLED ON CAMPUS

We've been testing Virus Hunter 6 (VH6), a piece of innovative technology that delivers Covid-19 test results in under 20 minutes.

Developed in collaboration with Brunel University London, Lancaster University and commercial partner Vidia Ltd, the test has been shown to be 99% accurate in lab trials.

The device can test up to six samples simultaneously and uses swab samples, image processors and artificial intelligence. Data is then shared with a mobile app, which reduces testing times and possible errors that are often associated with interpreting results.

At the beginning of the year, we took samples from our staff and students across our campuses to trial the new technology. Data gathered from testing will help validate the test for mass use. The innovative device,

which has recently received official registration with the Medicines and Healthcare Products Regulatory Agency (MHRA) and a CE marking, is now being trialled by the University Hospitals of Morecambe Bay NHS Foundation Trust at the Royal Lancaster Infirmary.

Professor Roberto La Ragione, Head of the Department of Pathology and Infectious Diseases and Deputy Head of the School of Veterinary Medicine, says: "Developing a highly accurate Covid-19 test that delivers results that are both rapid and reliable has been a key priority since the very beginning of this pandemic.

"Initial results from our testing have been very encouraging."



The device can test up to six samples simultaneously. Data is then shared with a mobile app, which reduces testing times and errors associated with interpreting results.

CVSSP's work with the BBC will create cutting-edge AI content technology  
Credit: Sound On/Pexels



## UNIVERSITY & BBC LEAD £2BN PERSONALISED MEDIA REVOLUTION

Our Centre for Vision, Speech and Signal Processing (CVSSP) is working with the BBC to create the next generation of personalised content for viewers.

Personalised media technology will transform the way content is created and consumed around the world, enabling experiences that adapt to individual preferences, accessibility requirements, devices and location.

Surrey academics are contributing to this by developing Artificial Intelligence techniques to split audio and video into separate audio and visual 'objects'. Content can then be assembled to meet particular user needs. The goal is to deliver this advance at scale to mass audiences.

With the rise of streaming services, personalisation is expected to be the key driver for media industry

growth in the next decade. Experts believe it can boost the UK media sector by £2bn per annum by 2030, generating 100,000 additional jobs.

Professor Adrian Hilton, Principal Investigator and Director of CVSSP, adds: "This £15m project builds on more than 20 years of successful collaboration between CVSSP and the BBC, which has pioneered many broadcast industry technologies. I'm proud to embark on this new partnership with the BBC, Lancaster University and creative industries colleagues to enable the UK to lead the personalised media revolution."

Learn more at: [ai4me.surrey.ac.uk](https://ai4me.surrey.ac.uk)

The Centre for Britain and Europe will promote ongoing dialogue with the EU in the wake of Brexit.  
Credit: Getty Images



## ME AND EU: WHO FIGHTS FOR SURREY AFTER BREXIT?

As the UK's relationship with Europe evolves, the challenges and opportunities we face are shared across our whole nation – including right here in Guildford.

The University's Centre for Britain and Europe, founded in 2019, engages with local government, enterprise and other key players to create new connections to improve Surrey's post-Brexit resilience.

Our Centre has just celebrated securing a three-year funding programme as a Jean Monnet Centre of Excellence. This is awarded to organisations who offer unique expertise on the EU. It will allow the University to deliver world-class teaching, research analysis and engagement designed to promote ongoing dialogue between the UK and EU across Surrey, the country and beyond.





## DRIVING THE G20 JOURNEY

### TO SUSTAINABLE TOURISM

Surrey academics have contributed to a United Nations World Tourism Organisation report for the G20 that will promote sustainable tourism across the globe.

The research, which promotes inclusive community development through tourism, addresses the national governments in G20 countries and beyond. It provides a set of concrete programmes, initiatives and recommendations to support governments and other key stakeholders in the tourism sector.

It focuses on four key pillars of action:

- Empowerment
- Safeguarding
- Prosperity
- Collaboration.

The report was developed by a multidisciplinary team from Surrey's School of Hospitality and Tourism Management and the Center for the Governance of Change at IE University, Spain.

An advisory panel was set up to provide advice and feedback on different parts of the report. This included Surrey's Professor Allan Williams, Professor Iis Tussyadiah, Professor Susanne Becken and Professor Xavier Font.

As a result of this far-reaching work, the tourism ministers of G20 nations are stepping up their efforts to place sustainability and inclusion at the heart of tourism recovery and future growth.

Professor Graham Miller, the Executive Dean of the Faculty of Arts and Social Sciences, commented: "I'm delighted to see our academics contributing to this thought leadership.

"It's important the tourism sector can re-shape itself to be more sustainable for people and the planet."

## READY FOR THE 6G REVOLUTION?

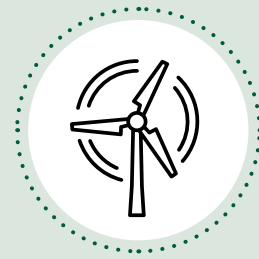
Government Minister for Digital Infrastructure Matt Warman was a guest speaker when Surrey's internationally acclaimed 5G Innovation Centre hosted a two-day online conference.

The aim of the event was to define the ways 5G and 6G will underpin how we communicate, work and live in the future. Alongside the Minister, the UK government was also represented by Tony Scales, Head of the 5G Programme. Joining them were speakers from telecommunications giants such as Vodafone, Samsung and Huawei, plus pre-eminent researchers, innovators and academics.

On day two of the event, Surrey's Regius Professor Rahim Tafazolli, Head of the Institute for Communication Systems, announced the launch of our new 6G Innovation Centre (6GIC).

This will focus on advanced telecommunications engineering and work with industry partners to forge a distinctive path for the next generation of mobile technology. It will also address how 6G can help tackle grand societal challenges such as climate change, pandemic control and sustainable economic growth.

Professor Max Lu, Vice-Chancellor of the University, said: "With the launch of 6GIC, we're reaffirming our mission on this journey to the digital future, and route-mapping our vision and research strategy for the next ten years."



### MAKING WAVES THANKS TO WIND POWER

The UK is a major global player when it comes to building wind farms and championing this environmentally friendly method of generating electricity. The University is playing its part in this national success story too, thanks to a £1.47m grant from the Engineering and Physical Sciences Research Council.

Surrey's Dr Philip Hancock, leader of this pioneering project, explains: "In a large wind farm, the behaviour of one turbine affects others in its wake. These wakes, and a wide range of wind conditions, are contributing factors that reduce efficiency and create increased structural fatigue, shortening turbine lifetime.

"As it's neither economic nor practical to place turbines far apart, solutions need to be found – and that's what our research is all about.

"The use of computer simulation, alongside our meteorological wind tunnel facilities, will contribute to improving the efficiency, reliability and operational life of large offshore wind farms."



Credit: Getty Images



14  
MAY

### NO FILTER: A CANDID CONVERSATION

Dr Alex George and Michelle Elman speak about mental health and their own experiences with social media. Has interaction with these digital platforms, particularly during the pandemic, influenced their personal struggles and wellbeing?

This free online event runs from 1-2:30pm.

Tickets: [surrey.ac.uk/events](https://surrey.ac.uk/events)

18  
MAY

### PINT OF SCIENCE

A series of virtual events in which our panel of star academics discuss what happens next for humanity. Will the pandemic reshape the world for the better?

Tickets: [pintofscience.co.uk](https://pintofscience.co.uk)



Dr Daniel Horton and Dr Caroline Shenton-Taylor take to the stage at a previous Pint of Science event. Credit: Grant Pritchard

18  
MAY

### THE SECRET GARDEN

An online-only performance of the enchanting classic of children's literature, reimagined in brilliant musical style as part of Guildford School of Acting's On Stage/On Screen summer season.

Starts at 7:30pm. Repeated at 2:30pm on 19 May.

Tickets: [gsauk.org/events](https://gsauk.org/events)

19  
MAY

### THE WILD PARTY

A jazz-and-gin-soaked party in 1920s Manhattan sets the scene for this musical fable about debauchery and decadence, shown as part of Guildford School of Acting's On Stage/On Screen summer season.

This online-only performance starts at 7:30pm. Repeated at 2:30pm on 20 May.

Tickets: [gsauk.org/events](https://gsauk.org/events)



Professor Roland Clift  
Credit: Paul Stead

#### DISCLAIMER:

Please note that events, dates and venues are subject to change and cancellation.

1  
JUNE

### BETTER THAN DEATH

An online-only performance of this bawdy retelling of the Brothers Grimm story, *The Musicians of Bremen*, written by comedian Nick Revell. Shown as part of Guildford School of Acting's On Stage/On Screen summer season.

Starts at 7:30pm. Repeated at 2:30pm on 2 June.

Tickets: [gsauk.org/events](https://gsauk.org/events)

2  
JUNE

### EXTRAORDINARY WOMEN

A glamorous femme fatale wreaks havoc on a string of lovers while holidaying on a Mediterranean island in the 1920s. This online-only performance is part of Guildford School of Acting's On Stage/On Screen summer season.

Starts at 7:30pm. Repeated at 2:30pm on 3 June.

Tickets: [gsauk.org/events](https://gsauk.org/events)

8  
SEP

### ROLAND CLIFT LECTURE

Our Centre for Environment and Sustainability hosts the annual Roland Clift Lecture, named after the founder of the Centre. This year, Professor Roland Geyer, a Surrey alumnus known internationally for his work quantifying plastic waste, is the guest speaker. The title of his lecture is *The Role of Business on a Planet in Peril*. The event starts at 5pm at the Rik Medlik Building on our Stag Hill campus.

For more details, visit: [surrey.ac.uk/ces](https://surrey.ac.uk/ces)

## GET THE MOST FROM VIRTUAL EVENTS

Here are our three top tips to ensure you get the best from virtual events:

#### Minimise distractions

Block out your calendar, find a quiet spot and avoid the temptation to check emails or do other work, so you can really focus on the content.

#### Connect with the speakers and other attendees

Take advantage of the interactive features offered. Chat with other participants, join the conversation by using the event hashtag, ask questions and leave comments for speakers.

#### Make sure your computer is ready

Download all the applications you need beforehand and familiarise yourself with the platform and its essential features, so you can enjoy the event.





## STUDENT PARAMEDICS VOLUNTEER

### AT ROYAL SURREY

A dozen of our final-year paramedic students have been working in the Intensive Care Unit (ICU) at the Royal Surrey County Hospital throughout the Covid-19 pandemic. We caught up with Amy Herkes, one of our brave volunteers.

#### What were your responsibilities?

I provided support to medical staff with patient care, observations, and retrieving and preparing treatments. As time went on, I took on additional tasks to help where possible.

#### Were the hours long?

I worked 12-hour shifts and, between all of us, we volunteered for more than 600 hours.

#### What did you like about the experience?

As student paramedics, we usually spend a short amount of time with our patients. To have the opportunity to care for them over a prolonged period was amazing.

#### Do you have any other reflections?

I'll particularly remember the marks left on my face by the life-saving PPE I had to

wear on a daily basis. Seeing the impact of Covid-19 and its effects was at times overwhelming. But the staff in the ICU were welcoming and supportive. I was proud to be part of their team.

Find out how we've been helping during the pandemic: [surrey.ac.uk/covidsupport](https://surrey.ac.uk/covidsupport)



Wearing PPE during long shifts made its mark on Amy. Credit: Amy Herkes

Credit: Getty Images

## A PASSION FOR FASHION WITH SUSTAINABILITY

PhD student Sarah Gray tells us how she's trying to make fashion a more sustainable industry.

Sarah says it was watching news reports on climate change as a teenager that ignited her interest in sustainability. A role in resource efficiency followed, which prompted her to study at our Centre for Environment and Sustainability in 2019.

"I'm researching different models to reduce the environmental impact of the clothing sector," says Sarah. "The clothing and textiles industries are highly carbon and water-intensive.

"The Aral Sea, for example, doesn't exist any more and that tragic decline is mainly due to cotton production.

"But there seems to be general agreement that one big step we can all take is to get more use out of the clothing we own."

Sarah points to new online businesses like Depop and Vinted, which resell used clothes, as exciting innovators in this area.

Sarah's research will also contribute to a new national campaign launched by the Waste and Resources Action Programme.

"Textiles 2030 is a collaboration between retailers and brands, and recyclers and reuse organisations in the UK," says Sarah. "We'll work together to find solutions to environmental issues the industry faces."



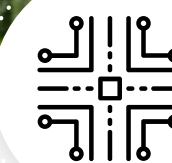
Sarah (above left) hopes her research can help halt the environmental crisis caused by fast fashion. Credit: Getty Images

## INNOVATING THE HIGH STREET

The report has a clear strategy to transform our beloved high streets.

"With the face of the high street shifting radically in a post-Covid-19 age, we need a more imaginative approach.

"So let's turn the high street into a space that will benefit from recent dramatic shifts in business, healthcare, the knowledge economy and aviation. Offering multi-purpose collaborative business spaces, hubs for inclusive career support, NHS-related areas and much-needed skills/training areas – all supported by high-quality communications infrastructure – can transform our town centres back into thriving community hearts."



Amelia (above) believes Guildford and Surrey can emerge "stronger and more cohesive" in the wake of Covid-19. Credit: Paul Stead



## STRONGER, FAIRER, BETTER: CHARTING SURREY'S ROUTE TO POST-COVID-19 RECOVERY

Professor Amelia Hadfield, Head of our Department of Politics and Dean International, explains why a major report by the University encourages organisations and businesses across the county to invest in transport and digital infrastructures to build a brighter future.

The report, written for the Future Economy Surrey Commission and Surrey County Council, is entitled *Charting Surrey's Post-Covid Rescue, Recovery and Growth*. It highlights the key economic areas, issues and challenges the county faces in the wake of Covid-19 and Brexit.

Based on data-gathering and extensive engagement with a range of strategic stakeholders undertaken last year, it offers a host of recommendations to local and national governments for charting a path from short-term recovery to long-term growth and prosperity.

With key multinationals and cutting-edge small businesses, plus its enviable location between Heathrow, Gatwick and London, Surrey has enjoyed a privileged position and a dynamic brand identity. The report indicates its wealth generation is built largely around key clusters of excellence in business, healthcare, aviation and the knowledge economy. These represent competitive strengths nationally and globally.

However, patterns of pre-Covid-19 stagnation and inequality, along with multi-sectoral pandemic impacts, still exist. And these are likely to present

serious challenges in sustainably restoring several key aspects of our business ecosystem.

However, this extraordinary time has also taught us ways to think differently about sectors and issues that even recently seemed unlikely candidates for change or improvement.

In this spirit, the report's recommendations seek both to challenge and engage with local authorities, the business community and key sectors to fully understand how Surrey can emerge stronger and more cohesive than ever before.



Covid-19 has had a profound impact on our lives. While we adjust to the changes and challenges, we need to shape a new vision and forge a way forward. We believe our report is just the beginning of discovering this new path.

Professor Amelia Hadfield

## COME LEARN WITH US!

Studying at Surrey isn't just about degrees.

We have short courses available for local residents. Subjects range from languages, to dance and sociology.

Discover more by visiting: [surrey.ac.uk/cpd-and-short-courses](https://surrey.ac.uk/cpd-and-short-courses)







## QUICK AND EASY POTATO FRITTATA

Fancy some tasty comfort food that's quick and easy to prepare as either a main meal for four or a snack for six? Then follow our recipe and you'll be noshing on this mega-tasty – and healthy – dish in half an hour.

### INGREDIENTS

2 tbsp of olive oil  
6 small potatoes, sliced  
A handful of spinach  
6 spring onions, sliced  
1 garlic clove, crushed  
6 eggs  
75ml milk  
8 cherry tomatoes, sliced  
Rocket

### METHOD

1. Pre-heat the grill.
2. Thoroughly wash and prepare all the vegetables.
3. Heat the olive oil in a frying pan on a medium heat.
4. Layer the potato slices across the pan, cover and cook for 10 minutes until soft.
5. Add the spinach, the spring onions, 6 cherry tomatoes and the garlic to the pan. Season with salt and pepper.
6. Continue cooking for 1-2 minutes and stir until the spinach is wilted.
7. In a bowl, beat together the eggs and the milk. Season with salt and pepper.
8. Pour the egg mixture over the vegetables and reduce to a low heat until cooked.
9. Place the pan under the grill for a few minutes to brown the top.
10. Serve with the remaining cherry tomatoes and rocket.

## FEELING SLUGGISH AFTER LOCKDOWN?

Surrey Sports Park Nutritionist Louise Jones gives us her top four tips to stay healthy this summer:

- ▶ **Get outside every day**  
A quick walk to get fresh air can instill good exercise habits.
- ▶ **Stay hydrated**  
Keep a water bottle filled by your desk and take regular drinks breaks.
- ▶ **Regular meals and snacks**  
Sticking to regular meal and snack times helps ensure we get all our vital nutrients.
- ▶ **Sleep**  
Try to go to bed and wake up at the same time every day, reduce your caffeine intake and limit screen time an hour before bed.



## GET FIGHTING FIT FOR SUMMER!

Sign up for membership at Surrey Sports Park today and have access to:

- ▶ 50m eight-lane Olympic-sized swimming pool
- ▶ 120-station gym, including cardiovascular equipment and weights
- ▶ Spin and yoga classes
- ▶ Squash, badminton, tennis and hockey courts
- ▶ Surrey Summit 12m climbing wall
- ▶ Treatment Room Sports Injury and Therapy Clinic.



Visit our website to find out more:  
[surreysportspark.co.uk](http://surreysportspark.co.uk)