

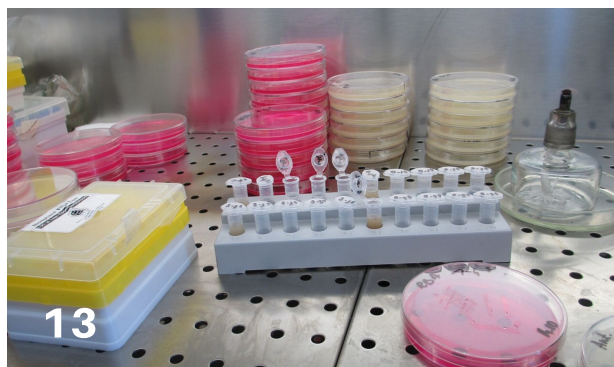
Green Scene

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VEGAN SURVIVAL ON CAMPUS

by Jessica Iubini-Hampton



Since starting at the University of Liverpool, I have been on the lookout for vegan-friendly options on campus. A few months ago, I ventured into the café inside Vine Court. After carefully inspecting each of their food options, I ended up going for the only plant-based choice on offer and dug into a plate of glistening baked beans spilling all over a sad, plain baked potato. That's enough to turn the most passionate of meat-eaters into a vegan, right? Maybe not.

I decided to try the food outlets inside the Guild of Students. To my surprise, one of their soups was indeed vegan-friendly and after spending quite some time finding a place to sit, I was able to enjoy my now lukewarm supper. The fact is that I'm Italian through and through and unless my meal is rounded off by some sort of pudding, my digestive system won't activate. Needless to say, I had to resort to satisfying my sweet tooth at the chain café present on site.

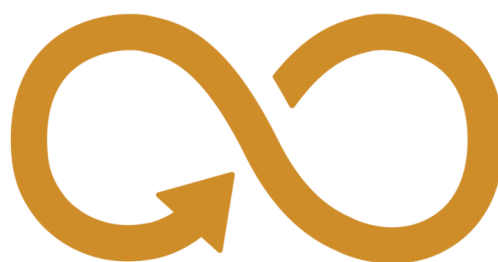
So why am I complaining about the lack of vegan foods on campus when I can find what I want at the likes of Starbucks? The reasons behind going vegan can vary from person to person and I, for one, chose to adopt this life as an impactful step towards a more sustainable and fairer-for-all planet. This is why I prefer not to spend my money in supporting retailers whose tax contributions are questionable, or places where single-use plastic is a plague- I mean, does that orzo pasta really need

to be displayed in individual plastic pots only to be served on a plate when I decide to eat in? Ultimately, plant-based dishes don't just help us vegans, they also provide choice for those who have allergies to dairy, fish, and eggs.

If you'd like to share your experience on campus, please fill out this short survey:
<https://www.surveymonkey.com/r/WRXC7Z2>

You never know, we may end up witnessing the first university-based, all-vegan café in the UK, right on our doorstep - there's already one in Berlin, after all!

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



LIVERPOOL YOUTH LEAD THE WAY ON CLIMATE ACTION

by Matilda Ferguson



On 1st May, the UK declared a environment and climate emergency, thanks to a wave of action across the country lead by Extinct Rebellion and the youth climate strikes. Green Scene invited the Liverpool branch of Youth Strike 4 Climate to have their say about the plight of our planet.

Climate Change is the greatest threat currently facing humanity, and it's us, the younger generation, who will have to suffer the most severe consequences.

My name is Matilda, and I am part of the team behind 'Youth Strike 4 Climate -Liverpool'. Since February, we have held three protests in various locations across Liverpool as part of an internationally coordinated movement. Beginning with the 16-year-old Greta Thunberg sitting alone outside the Swedish parliamentary building each Friday, the 'fridaysforfuture' campaign has spread globally, and now, up to 100 countries participate weekly.

The basic aim of these protests is to demand climate action. Although this is obviously not a simple task, it is essential that we see system change through new policies, or else our generation will be facing a very bleak future.

One of our demands is that both local and national governments declare a climate emergency and prioritise ecologically friendly legislation, such as the green new deal.

At the start of May, our national government declared a climate emergency, an event brought about by a series of large public protests by environmentalist group Extinction Rebellion (XR). This is a step forward towards action and we are pleased that governments are starting to acknowledge the climate crisis, but this is only one small part of what is necessary in order to begin to reduce the impacts of global warming.

13 CLIMATE ACTION



@youthclimatestrike_lpool



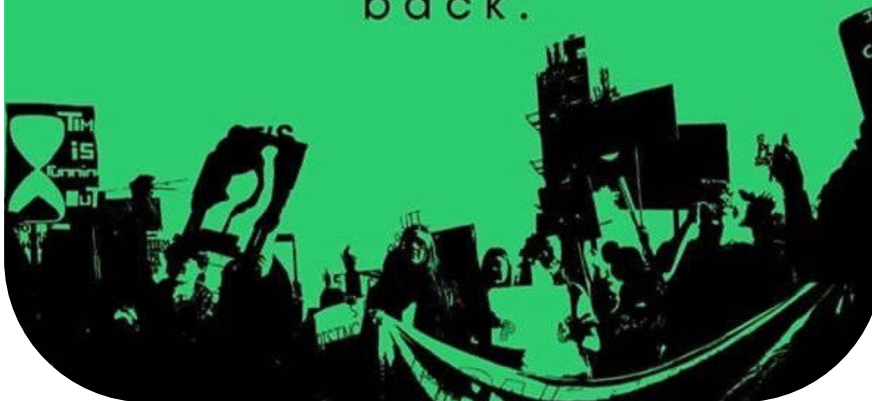
@youthclimatestrikeliverpool



@climate_lpool

WAKE UP LIVERPOOL

The strikes are
back.



We ask that the UK Government take a global lead on tackling climate change by working towards goals set at the COP 21 Paris Climate Change Agreement, help support developing nations in protecting biodiversity and invest the money towards renewable energy sources by ending the £10.5 billion it gives in subsidies towards fossil fuel corporations by 2025. The current target is to reduce carbon emissions by 80% by 2050, but we believe that this isn't enough. We ask that we work towards a carbon-neutral economy by 2040.

The Intergovernmental Panel on Climate Change (IPCC) report released in October 2018 has informed us that we have under 12 years before the impacts of climate change become completely irreversible. It stated: "Climate-related risks to health, livelihoods, food security, water supply, human security, and economic growth are projected to increase with global warming of 1.5°C". However, what many people are not aware of is that climate related risks are not some far off in-the-future events, or even 12 years away - these events are happening now. Just last month, two cyclones struck Mozambique back-to-back, flattening villages, killing around 40 people and damaging thousands of homes.

This was the seventh major storm of the Indian Ocean this season, which is more than double the average for the time of year and a direct result of rising global temperatures. While we live with many unnecessary luxuries in the western world, thousands are already paying the price for our carelessness when it comes to protecting our only home.

We are currently facing the sixth mass extinction event, with up to two-hundred species becoming extinct daily, and extinction rates ten-thousand times faster than normal. Disastrous trends accelerated as a result of human activity such as deforestation, loss of wildlife and biodiversity, toxic pollution, and acidification of our oceans means that it isn't enough at this stage for our government to simply be declaring a climate emergency and acknowledging the crisis. We need them to do something about it and act, which is why we protested on the 19th July in Liverpool Chevasse Park, along with many other cities across the country.

The impending threat of climate change to our futures and to our planet can no longer be ignored and urgent action must be taken by today's politicians, so come along to stand in solidarity with us as we fight for our futures.

“

**I RAISE UP MY VOICE
NOT SO I CAN SHOUT
BUT SO THAT THOSE
WITHOUT A VOICE CAN
BE HEARD**

Malala Yousafzai

”

CALLING FOR AN AIR POLLUTION REVOLUTION

by Zoe Dunn



The 5th of June saw the 45th anniversary of World Environment Day; a day aimed at promoting awareness and encouraging protection of our planet and its resources. Every year sees the United Nations select a theme for World Environment day. This year, the spotlight is on air pollution.

Air pollution originates from a variety of sources; our obsession with using vehicles instead of our legs or our need to produce large amounts of food to feed our nation. Whilst, we need to produce crops, cars, trains or planes are required for certain journeys, air pollution is a serious problem. Approximately 7 million people worldwide die prematurely each year from air pollution, with individuals of lower socio-economic status bearing the burden of the air pollution issue.

With World Environment Day approaching, the UN Environment authority is pleading the world to help tackle air pollution by living the 4Rs: reduce, recycle, reuse, recover. Here are 4 top tips to help you meet the 4Rs!

1

Try a flexitarian diet. Emissions from agriculture are a major contributor of air pollution. Cutting out meat and dairy products from your diet, for even just a couple of days of the week could seriously help reduce your carbon footprint. Liverpool's has some great vegan restaurants and markets if you're feeling lazy!

2

Ditch the 699 and walk or cycle. A simple yet effective way to reduce your carbon footprint. Ditch the crowded, unbearable heat of the 699 bus and chose to walk or cycle to uni instead.

3

Reduce your plastic usage or recycle when you need to. From re-usable water bottles and coffee cups, to naked shampoos and conditioners cutting down your plastic waste is 100% achievable. Lush has a great range of naked products; around 60% of their current products need no packaging.

4

Simply save energy. The days are getting longer, with the sun shining until 8pm. So, switch off your lights (especially if you're not in the room) and cut down your electricity costs as an added benefit.

THE RISE OF CHILD POVERTY

by Aime Grzesik



Back in 1999, the prime minister Tony Blair pledged to halve child poverty by 2010 and eliminate it by 2020. Twenty years later, with the 2020 milestone looming, child poverty is not only far from being eliminated, it's on course for a record high.

According to a study by the Resolution Foundation thinktank, the proportion of children living in relative poverty (after housing costs) is set to hit 37% – exceeding the previous record high of 34% in the early 1990s. This could mean an extra 1 million children living in poverty in the next five years. In addition, over 120,000 children in the UK are homeless, a 70% increase in the past 12 years since the Conservatives came in to power.

The situation in Merseyside is increasingly desperate with over 60,000 children living in poverty, 27,409 in Liverpool alone. In 2016, 1 in 3 children in Liverpool were living below the bread line, but some areas of the city are now reaching 1 in 2. In 2018, End Child Poverty published new figures on the level of child poverty in each constituency, local authority and ward in the UK. Princes Park was named in the top 3 electoral wards with the highest level of child poverty in the UK at a staggering 58.85%, almost double the national average.

According to The Children's Society, children living in poverty are more likely to have poor physical health, experience mental health problems, have a low sense of well-being, underachieve at school, have employment difficulties in adult life, experience social deprivation, feel unsafe and experience stigma and bullying at school.

1 NO POVERTY





Researchers at University of Liverpool analysed data on 10,652 children from the UK Millennium Cohort Study, a large nationally representative sample of babies born between 2000 and 2002 who have been tracked throughout childhood.

They found that compared with children who never experienced poverty, any period of poverty was associated with worse physical and mental health in early adolescence. In particular, those in persistent poverty had a 3 times higher risk of mental ill health, a 1.5 times greater risk of obesity, and nearly double the risk of longstanding illness than children who had never been poor.

Professor David Taylor-Robinson, University of Liverpool's Department of Public Health and Policy, said: "As a child health doctor, it is baffling to me that we let an exposure as toxic as child poverty wash over such a large proportion of the children in this country. Our analysis shows that urgent action is needed to reduce child poverty if we want to secure healthy futures for kids in the UK."

Child poverty not only effects children and their families on an individual basis, it has a huge effect on the economy. D Hirsch, An estimate of the Cost of Child Poverty in 2013, estimates that child poverty costs the UK economy 29 billion a year.

With a dramatic increase of children living in poverty since then, this figure is likely to higher. The 29 billion estimate does not even take in to account the effect in the future - what will our economy look like when this generation of children, enter the workforce? When children suffer, we all pay the price.

In some constituencies, over 50% of children are now living in poverty.



Look up child poverty in your constituency at www.endchildpoverty.org.uk

end child poverty

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FOOD MILES: WHAT YOU EAT, NOT WHERE IT COMES FROM

by Jake Jones



The food on our plates has often travelled across the globe to get there. The distance our food has travelled is known as 'food miles', which have sparked a moral debate over the sustainability of our food sources. As a result, more people are choosing locally produced goods to reduce their carbon footprint.

MILES BETTER...

Yet there has been significant research into the misconceptions associated with food miles, which shows that many internationally imported foods, such as fruit and vegetables, are less polluting than many locally produced foods. This is because only 1% of UK air traffic flow is from food transported to the UK, with food transported by boat being significantly less damaging for the environment.

The superior growing conditions of other countries means certain foods can be produced all year round with low costs for storing or refrigerating food, compared to the UK. For example, apples produced in New Zealand and transported to the UK by boat out of season are 40% less polluting than UK apples produced in season, but stored for use later in the year (Kemp et al., 2009).

This may create confusion over the way to reduce the impact of your food on the environment. By altering your diet, you can have a dramatic positive impact on the environment. by being conscious of

what you eat, not where it comes from. You can achieve this by trying to eat a low emissions diet, which is a new lifestyle that helps protect the environment without making expensive changes, making it perfect for everyone, especially students!

LOW EMISSIONS DIET

Low carbon diet targets the whole life cycle process for the food we eat, not just the distance it's travelled, helping you create a low impact diet. It focuses on foods that have not been dramatically processed, stored for a lengthy period or transported by air; all of which create significant carbon emissions. With even marginal reductions in high emitting foods such as meat or dairy helps tp significantly reduce the environmental footprint of an individual.

- Switch meat for meat substitutes, such as tofu.
- Eat more fruit, which have the lowest environmental footprint, especially those in season.
- Use plant-based milk, such as oat, rice or soya milk.
- Grow your own herbs and spices on a windowsill.

The food miles debate has been circling for the past 25 year, yet there is evidence that what we eat matters more than where it came from. Take action by changing what you eat and try the low carbon diet for a healthier planet.

13 CLIMATE ACTION



MEET OUR SCIENTISTS TACKLING PLASTIC LAB WASTE

by Claudia Fryer and Niamh McCallum



Everyone is aware of the extreme plastic problem facing our world today. Landfills are overflowing and as a consequence, it is estimated that by 2050 there will be more plastic in the sea than fish.

In Europe and the UK, countless efforts are being put into tackling this ever-growing problem. We have seen the introduction of the 10p tax on bags for life in order to encourage reuse, plastic straws are on the way out and the market for reusable water bottles is booming. Despite these great efforts and more, it is not always feasible to reuse plastic in certain situations, for example in research labs.

In a study conducted by the University of Exeter it was estimated that 280 scientists in the bioscience department generated approximately 267 tonnes of plastic in 2014 (University of Exeter Sustainability and Waste and Resource Management offices). That is equivalent to about 5.7 million empty 2-litre plastic bottles. From extrapolating this data, the scientists estimated that on a global scale this corresponds to the weight of roughly 67 cruise ships.

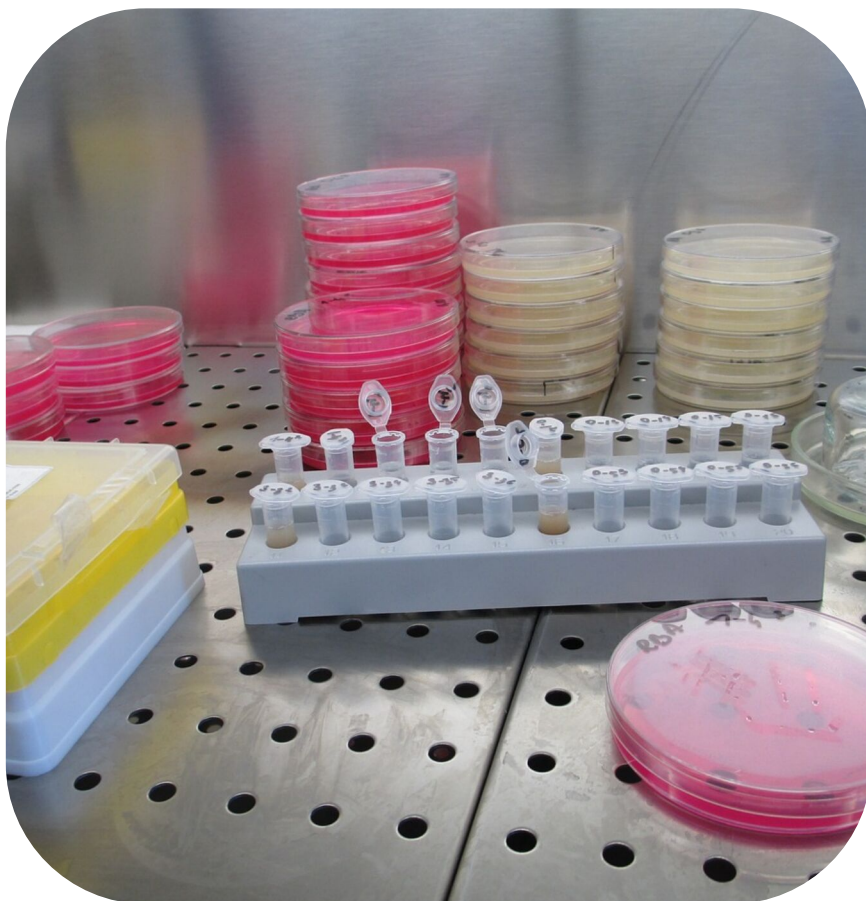
Although reusable glass alternatives can be used in some scenarios, they are not appropriate for certain applications, such as cell culture where sterile conditions are crucial.

As a consequence, there is a heavy reliance on single-use plastics in research laboratories. These days, most contaminated laboratory waste is collected and incinerated, rather than sent to landfill, and the process is used to generate electricity or used in local heating schemes. Although this is a great sustainable alternative to landfill, first and foremost: waste should be reduced.

There is mounting pressure on the research industry to cut their plastic. A recent article published in Nature (Urbina et al., 2015) called on grant agencies to help incentivise sustainability in research laboratories.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION





Having recognised this problem, we entered the Young Entrepreneurs Scheme (YES) and developed a fictional business plan for Lactolab, a company that makes compostable plastics prepared from waste milk. We were thrilled to win the Engineering YES prize, awarded to us at the Royal Society back in December.

The whole experience highlighted that something need to be done to tackle the laboratory waste problem. We realised that although many scientists are being sustainable at home, they had not considered the negative impact their research is having on our planet.

Earlier this year, we met with the Green Guild to discuss what could be done on a small scale to help raise awareness around reducing waste in laboratories at the University of Liverpool. From this, an event was organised in PGR week which gave the opportunity for us to brainstorm with others with shared interest. We hope there will be more events like this in the future!

Whilst we both finish our PhDs, we are hoping to continue raising awareness of the issue and find out new ways in which we can reduce our laboratory waste.

Top Tips for Reducing Lab Waste

1

Make sure your lab has cardboard and non-contaminated plastic waste bins

2

Use reusable glass alternatives where possible

3


Plan experiments ahead with waste in mind so that consumables can be reused

4

Check out RightCycle
www.kcprofessional.com/umbraco/rightcycle

5

Call people out for being wasteful

If you are interested in learning more or have any ideas of your own please get in touch by email (thesustainablescientist@gmail.com) or follow us on twitter  [@thesustainablescientists](https://twitter.com/thesustainablescientists)

STUDENTS TAKE ON SUSTAINABLE BUSINESS CHALLENGE

by joanne Poole



Between Wednesday 6th and Friday 8th March four higher education institutions hosted the first ever Amsterdam Sustainable Business Challenge.

With 100 students from University of Liverpool, Newcastle University, Vrije University & the University of Groningen, 16 business experts including organisations such as Enterprise Rent A Car, ARUP, Santander and IBM, the challenge was fast paced, intense and a huge success!

Mixed student teams engaged with idea generation, the business model canvas tool and business meetings with the external experts to generate a pitch resulting in an exhilarating elevator pitch final in front of a panel of Amsterdam inbusiness delegates, which saw a raft of innovative solutions presented. The winning idea was a sustainability monitoring reward app that businesses could use to incentivise staff to embed sustainability ideas at work and in their local community.

Liverpool and Newcastle's shared need to provide aspiration raising employability opportunities for underrepresented student groups provided a diversity focus for the project. All students from Newcastle University and University of Liverpool were from widening participation under graduate schemes with the students from the Netherlands a much wider mixture including Masters Students.

The event was designed and co-ordinated via a series of planning conference calls. Each University took responsibility for different elements of the event, including logistics, and designing the challenge brief working with academic colleagues and main sponsors Amsterdam inbusiness.

For employer partners, this event provided a means to meet objectives relating to diversity and social mobility and the opportunity to promote their employer brands and spot talent. Amsterdam in Business used the event to develop different perspectives around their real challenges which will contribute to future sustainability initiatives.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



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1 NO
POVERTY



2 ZERO
HUNGER



3 GOOD HEALTH
AND WELL-BEING



4 QUALITY
EDUCATION



5 GENDER
EQUALITY



6 CLEAN WATER
AND SANITATION



7 AFFORDABLE AND
CLEAN ENERGY



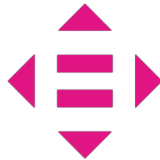
8 DECENT WORK AND
ECONOMIC GROWTH



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



10 REDUCED
INEQUALITIES



11 SUSTAINABLE CITIES
AND COMMUNITIES



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



13 CLIMATE
ACTION



14 LIFE
BELOW WATER



15 LIFE
ON LAND



16 PEACE, JUSTICE
AND STRONG
INSTITUTIONS



17 PARTNERSHIPS
FOR THE GOALS



**SUSTAINABLE
DEVELOPMENT
GOALS**