

SOCIAL IMPACT REPORT 2021

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OUR GUIDING PRINCIPLES

Ethos

- Community-focused
- Inclusive
- Collaborative

Impact

- Maximise leverage
- Tangible
- Visible
- Replicable
- Scalable
- Lasting



Welcome to our 2021 Social Impact Report, a round-up of the contribution we have made during the past financial year towards the creation of an energy system that is good for people and good for the planet.

2020/21 was a record-breaking year, with:

- **4.3 GWh** of renewable electricity generated
- **£2.59 m** of new investment raised to support our growing portfolio of renewables
- **400+** new investor Members putting their savings to work supporting community-owned renewables
- **33** low carbon community groups from across Oxfordshire joining us in community led action on climate change
- **£3.3 million** of community benefit activity being delivered.

2020/21 was also the year where work started on **Ray Valley Solar**, our first ground mount project. At 19 MW it will not only be the UK's largest community-owned solar park, it will also result in a six-fold increase in our anticipated annual generation, a huge step change for us.

Innovation has been a growing theme for our work, providing innovation grant funding and piloting new services to help householders and organisations improve the energy performance of their buildings. Through Project LEO (Local Energy Oxfordshire), our renewable installations are becoming increasingly important for the role they are playing at the heart of our innovation work, sitting at the centre of trials to test new flexibility services.

Partnership and collaboration continue to be key to our approach. Our work draws on the support of a growing ecosystem of community, commercial, public sector, and academic partners. Together we are seeking equitable and practical real-world solutions that put people and their needs at the heart of the energy system.

Thank you to our members and partners for your extraordinary support over the last 12 months. Together we can continue to put Oxfordshire at the forefront of the energy revolution.



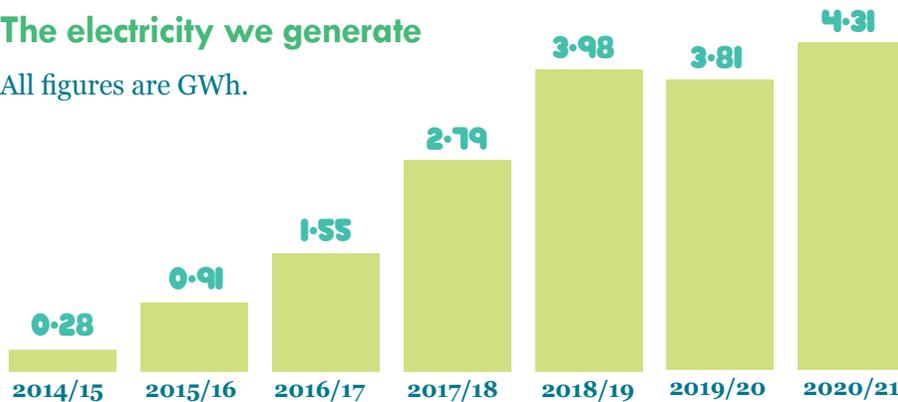
PLANET

We want to protect our warming planet both by creating renewable energy projects and by reducing energy demand.

No new renewable projects were commissioned during the year, predominantly due to the Covid-19 pandemic hindering project development. Generation from our existing assets increased, thanks to improved weather conditions and we installed our first battery, adding storage to our portfolio.

The electricity we generate

All figures are GWh.



In 2020/21 we:



GENERATED
4.31
GWH ACROSS ALL
OUR LIVE PROJECTS



SAVED
1,092
TONNES
OF CO2



INSTALLED
50
KW OF
BATTERY
STORAGE

Our total portfolio stands at:



47  0
RENEWABLE ENERGY
INSTALLATIONS



4.0  0
MW INSTALLED
CAPACITY



50
KW OF
BATTERY STORAGE

Together, each year, they have the potential to...



GENERATE
4.5  0
GWH GREEN ELECTRICITY



PROVIDE
285  0
PEOPLE'S SHARE OF
OXFORDSHIRE'S DIRECT
ENERGY NEEDS¹

This year, we started work on Ray Valley Solar which, when fully operational, will annually:



GENERATE
18
GWH OF CLEAN
GREEN ENERGY²



POWER OVER
6,000
HOMES

 Change from 2019/20

¹ Total energy used to power Oxfordshire's homes and organisations each year, divided equally between the county's residents.

² Typical household annual electricity usage based on Ofgem typical tier 1 domestic medium user of 3,100kWh.



PEOPLE

Community energy is a grassroots, people-centred movement for change. The success of Low Carbon Hub is due to the phenomenal support of individuals and organisations. Everyone can play a part in making the shift to a sustainable energy future. Those who support our work include:

Our members



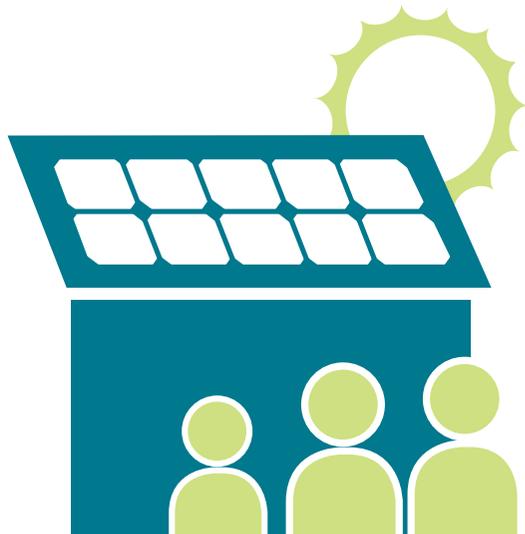
1,457 INVESTOR MEMBERS ↑ 417

Who help finance the upfront costs of our projects and whose investments bring energy into community ownership.



33 COMMUNITY SHAREHOLDERS ↑ 7

Low carbon community groups who share our aims and have a stake in us.



Our partners

40 HOST ORGANISATIONS ± 0

The schools, businesses, and community organisations that host our energy projects.



31 SCHOOLS ± 0



6 BUSINESSES ± 0



3 COMMUNITY ORGANISATIONS ± 0

Our ecosystem

The individuals and organisations who collaborate with us to deliver innovative projects and services, share our stories, and follow our progress.



198 ↑ 67
ACTIVE PARTNERS



1,840 ↑ 541
LOW CARBON HUB NEWSLETTER RECIPIENTS



6,177 ↑ 1,213
LOW CARBON HUB SOCIAL MEDIA FOLLOWERS



3,120
PROGRAMME SOCIAL MEDIA FOLLOWERS

Our growing ecosystem reflects the importance of collaboration with individuals, groups, and organisations across our work. Expansion of our renewables portfolio is only possible due to our investor members and host organisations. Our energy efficiency programmes for households, organisations, and schools are all delivered in partnership, and we are proud to be part of Project LEO, a collaboration of nine organisations working together to accelerate the transition to a net zero energy system.



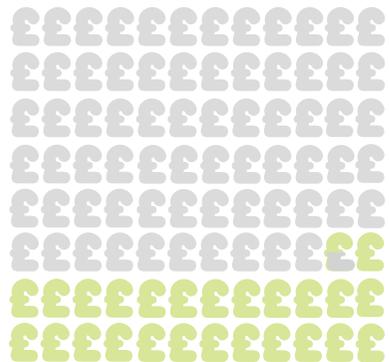
PROSPERITY

By pooling energy, enthusiasm, knowledge, and expertise, our projects create collective wealth, and keeps more of the money we spend on energy in the local economy.

The benefits of our installations are then shared:

- 1 Investors get a **return on their investment** for helping fund the upfront costs of our projects.
- 2 The host organisations – schools, businesses, and organisations – get **discounted electricity** and a cost-effective way to reduce their carbon footprint.
- 3 Low Carbon Hub has a **sustainable income stream** to support further local action to tackle the global issue of climate change through grants and practical help.

Total investment in the Low Carbon Hub:
£8,355,564



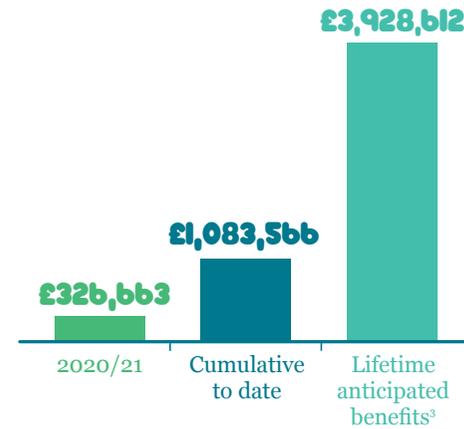
£2,546,520
NET
INCREASE
2020/21 ←

Distribution of benefits

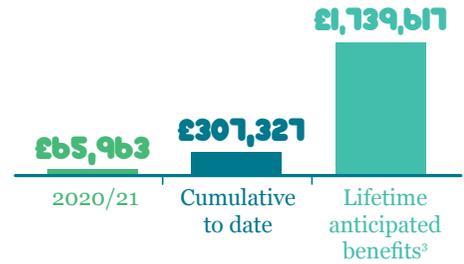
We report on the total benefits that our portfolio of installations is projected to deliver over its lifetime, as well as actual benefits achieved to date.

The Low Carbon Hub IPS Limited's portfolio of commissioned renewable energy installations are anticipated to deliver:

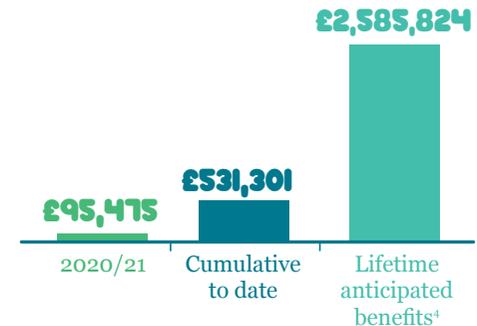
INTEREST TO INVESTORS



SAVINGS ON ELECTRICITY BILLS BY HOSTS



COMMUNITY BENEFIT INCOME⁴



³ Nominal values modelled over a 20-year lifetime and based on projects commissioned by financial year end.

⁴ Total community benefit donation made by the Low Carbon Hub IPS to Low Carbon Hub CIC, plus any expenditure directly supporting community benefit activity delivered by the Low Carbon Hub IPS itself.

Delivering community benefit

2020/21

£3,319,365

We use 100% of the surplus from the Low Carbon Hub IPS Limited, along with grants, donations, and other sources of funding, to support carbon cutting activity in Oxfordshire and beyond.

A full financial report of our community benefit activity can be found in the Low Carbon Hub CIC Annual Report on our website. On pages 14-21 we highlight the impact of our partnership programmes.

This year, our community benefit work has resulted in:



27 energy audits for



15
small
businesses



1
school



11
community
organisations



41 hours of Helpdesk support



57 individuals and organisations
received advice and support



Financial support:



8
community
grants



9
small business
energy efficiency
grants



8
small business
innovation
grants



The Ashden LESS CO₂ schools energy efficiency programme was on pause due to Covid this year.

Our Community Benefit Programme

LOCAL ENERGY PROGRAMME - £3,304,400

Our Local Energy Programme has two key themes. First, we provide advice and practical and financial support to encourage the flourishing of community energy in Oxfordshire and beyond. Secondly, we support innovation, either through undertaking research and pilots ourselves, or funding the work of others to help explore new business models for community-led energy activities.

£4,324	Helpdesk service supporting further community energy projects
£12,275	Next Generation funding to support new community energy projects nationally
£7,330	Community building energy audit grants scheme
£1,130	LESS CO ₂ school energy efficiency programme support
£252,046	OxFutures project supporting energy efficiency and innovation for small and medium-sized enterprises (SMEs)
£370,000	BEIS retrofit Cosy Homes Oxfordshire project
£279	People's Power Station, an online interactive map showcasing Oxfordshire's efforts to reduce use of fossil fuels
£2,485,654	Project LEO (Local Energy Oxfordshire) smart-grid trials
£171,363	Energy Solutions Oxfordshire (ESOx) developing a new business model to encourage take up of energy efficiency amongst SMEs

COMMUNITY BENEFIT MANAGEMENT - £2,935

We believe that investing in good management of our community benefit spend is important to ensure its effective use. This cost includes strategy development, monitoring, reporting, and internal project costs.

COMMUNITY GRANTS PROGRAMME – £12,030

Large Grants Programme

£5,000 **Low Carbon Oxford North (LCON)**
This is the third large grant awarded to this group and builds on their previous work and research to promote healthy streets and active travel over the past two years.

£4,530 **Rose Hill and Iffley Low Carbon (RHILC)**
A collaboration of Low Carbon Hub community groups and the CAG Network for a creative and exciting project, the '20 Stories of Climate Action' exhibition.

Small Grants Programme

£500 **Osney Lock Hydro (OLH)**
To continue last year's work to further improve public accessibility and on-site engagement. The group has been given longer to implement the work due to Covid restrictions.

£500 **Rose Hill and Iffley Low Carbon (RHILC)**
To create a short film on their recent tree-planting project on 27 February 2021, titled, *RHILC's Tree-Planting Story*.

£500 **Greener Henley**
To install LED lighting in the local community centre, d:two.

£500 **Henley Climate Emergency Working Group (HCEWG)**
To implement roof insulation in the Henley YMCA Community Hall.

£500 **West Oxford Community Renewables (WOCORe)**
To go towards the dormitories' energy efficiency work at the Hill End Educational Centre.

Renewable Generation Grants

£992 **Green Transition Eynsham Area**

£6,600 **Low Carbon Oxford North**

Other Community Grants

£1,000 **Bikes for key workers**

Communities we've supported



LED LIGHTING FOR D:TWO

Greener Henley received £500 to install LED lighting in the local community centre (d:two). The d:two community centre in Henley is a thriving hall used by many local groups in the area and hosts the local food bank and community café. Replacing the lighting with LED lighting is estimated to save £537 in energy bills. Greener Henley is a community group tackling the climate and ecological crisis using education, action, and collaboration. Find out more at: greenerhenley.org.uk



ENERGY EFFICIENCY AT HILL END

Hill End has been offering unique outdoor learning experiences since the 1920s. Following an energy audit by EiE as part of the OxFutures programme it was discovered that the dormitories had no loft insulation at all. They received an OxFutures grant from GreenFund to install secondary glazing in their dormitory buildings and have also been awarded a small grant of £500 through Low Carbon Hub community group WOCORe to go towards further improving the dormitories' energy efficiency.

"We are very grateful to OxFutures and the Low Carbon Hub and hope that we can work together on more projects recommended in our energy audit. This project has meant that we can do more of the outdoor learning that we were set up to do."

David Millin, Hill End



PERCEPTION

We are committed to developing a sustainable energy system that works for everyone. We aim to be a transparent and trusted partner, and to share knowledge and expertise openly. In April 2021 we conducted our fifth 'How are we doing?' survey to see how our members, partners, and supporters think we're doing and to learn how we can improve.

Percentage of respondents⁶ who...

...have **quite high or high trust** in Low Carbon Hub's expertise around local, renewable energy and low carbon

97%

... perceive Low Carbon Hub to be **quite or highly committed** to the creation of a low carbon, locally owned renewable energy system

99%

... report Low Carbon Hub had a **moderate or substantial** impact on their knowledge

90%

... report Low Carbon Hub has made them **more positive** about the potential of community-owned solutions to energy issues

84%

... report Low Carbon Hub has contributed to them taking **some or substantial action** on energy or environmental issues

81%

⁶ Based on 183 responses to the 'How are we doing?' Low Carbon Hub stakeholder survey, April 2021.

What people say about us and the support we give:

"As a climate activist, I hugely appreciate Low Carbon Hub. It's a dynamic and highly efficient organisation which is doing an impressive amount to help save the planet."

Anonymous feedback from survey

"The audit was well organised and provided us with a lot of information to think about. We have improved the insulation in the centre. Of all the recommendations this was the easiest for us to implement. Hopefully, in the future, we will be able to work on some of the more expensive and larger-scale recommendations."

Lisa Grant, Henley YMCA & Y Centre
Feedback on the Westmill Solar funded energy audit

"Please keep on doing what you are... We really appreciate your support of our work."

Anonymous feedback from survey

"It's great to see your progress, your high-quality information and initiatives, and to interact with your helpful and knowledgeable people. More of the same please!"

Anonymous feedback from survey

"[The audit] was incredibly helpful and made us think about options we hadn't considered and helped us imagine what we might do. Thank you! It was good to have time with someone who understood our problems and helped us come up with the right solution for our church."

Rev. Norma Fergusson, St Mary the Virgin Parish Church, Ashbury
Feedback on the Westmill Solar funded energy audit

If you'd like to give us any feedback, drop us a line at info@lowcarbonhub.org.

OxFutures is a pioneering partnership, transforming Oxfordshire into a world-leading example of how to create a thriving zero carbon economy.

OxFutures started as a £3.2 m three-year project to boost low carbon economic development in Oxfordshire. It is supported by the European Regional Development Fund and run through a collaborative partnership between the Low Carbon Hub, Oxford City Council, the University of Oxford, Oxford Brookes University, Cherwell District Council, and Bioregional.

In 2020, an extension of the programme was approved, allowing it to continue until March 2023. The programme has been continued by partners Low Carbon Hub and Oxford Brookes University, who are supporting the delivery of 45 additional energy audits for small and medium enterprises (SMEs) as well as new feasibility and implementation grants to support innovation.



PROSPERITY

Financial support

OxFutures manages a grant programme to part-fund the installation of energy-saving measures and support innovation growth in the low carbon sector.

9 SMEs have received energy efficiency grants to implement their energy audit recommendations'

£31,057 grant funding was awarded to SMEs implementing energy efficiency projects across the county.

8 SMEs have received feasibility grants to test and develop innovative products and services, with some going on to receive implementation grants.

£139,783 in grant funding was awarded to SMEs developing and creating innovation projects.



PLANET

In the 2020/21 financial year, OxFutures has delivered:



15
ENERGY
AUDITS

One third of all recommendations highlighted in the energy audit reports have been carried out so far.



96
ENERGY SAVING
RECOMMENDATIONS



656,296
KWH OF ENERGY
SAVINGS COULD BE
ACHIEVED

130+
TONNES OF CO₂
COULD BE SAVED



PEOPLE



6
PROJECT
PARTNERS



1,090
TWITTER
FOLLOWERS

Small and medium enterprises we have supported



DUFFIN ASSOCIATES

Duffin Associates are developing a new solar PV tracker to maximise generation of solar panels. Tony Duffin, after extensive time in the solar technology field, wanted to test his ideas in practice for a more affordable solar panel system that moves with the direction of the sun. The OxFutures prototype demonstrator work, enabled Duffin Associates to secure a much larger Innovate UK SMART grant to create a completely engineered design and run field-scale trials.

Using innovation grant funding from OxFutures, Tony and the team have been able to realise this project.

“OxFutures had a really clear, targeted market brief which meant I had to be specific about project goals and the financial aspects of the project. Being able to talk through the process and get feedback from Alison was great. Overall, it was an extremely valuable process.”

Tony Duffin, Duffin Associates



HEATHFIELD HOUSE NURSING HOME

Heathfield House Nursing Home is set in a large Georgian house on the outskirts of Oxford. The owner, Raj Gupta, reached out to OxFutures in the hope of making the building more energy efficient. EiE audited the property in July 2020 and subsequently made a number of recommendations ranging from replacing the gas boiler, upgrading to LEDs, and considering adding solar panels to the building. As a result of the energy audit, the nursing home has upgraded its lighting, heating and hot water with a £10,000 grant, to make the home more comfortable and well-lit for residents.

“The collaborative work undertaken during the OxFutures programme has led to three major Low Carbon Hub programmes: Project LEO, Cosy Homes, and Energy Solutions Oxfordshire (ESOx). The OxFutures project has been invaluable in the creation and development of these new initiatives.”

Alison Grunewald, Business Relationship Manager for Low Carbon Hub

The reach of OxFutures

So much has been achieved over the first three years of the project. One of the most important things about OxFutures has been the pathway it has opened up for more Low Carbon Hub programmes.



Project LEO, a £40 m project trialling local energy solutions to accelerate the transition to a zero carbon energy system.



Cosy Homes Oxfordshire, a home retrofit service to improve energy efficiency in homes, reducing carbon emissions and improving comfort.



Energy Solutions Oxfordshire, the complete energy efficiency service helping organisations lower their energy use while saving time and money.

PROGRAMME SPOTLIGHT:



Lowering carbon emissions, while saving money on energy bills.

We know that businesses are often keen to undertake energy efficiency improvements in their buildings but struggle to find the time, resources, and upfront capital to make it happen. From insulation and draught-proofing to installing renewable energy systems and improving staff awareness of energy usage, Energy Solutions Oxfordshire (ESOx) makes energy efficiency improvements simple.

ESOx is a partnership project between the Low Carbon Hub and the Environmental Information Exchange team at Oxford Brookes University.

Our team is made up of energy experts with decades of experience working with Oxfordshire's businesses to deliver tailored energy improvements for their premises.

ESOx forms part of the wider ESCO-in-a-Box project, led by EnergyPro Ltd and funded by the Department for Business, Energy and Industrial Strategy (BEIS) until June 2021.



"[The energy audit] is excellent. There is some really good, practical advice and a lot we had not considered. The layout is great, succinct, and effective, and will be a good roadmap for us to make the recommended changes (including processes)."

Jake Backus, Common Ground



As an organisation we place five key values at the heart of what we do. These values provide a framework to ensure that we're always aligned with our core purpose as an organisation.

PROGRAMME SPOTLIGHT:



Project LEO (Local Energy Oxfordshire) is one of the UK's most ambitious, wide-ranging, and innovative energy trials, seeking to accelerate the UK's transition to a zero carbon energy system.

Project LEO is running trials in Oxfordshire to understand how new technologies and services, particularly at the 'edge' of the electricity network – closest to the point where people are using energy – can benefit local people, communities, and the energy system.

This cross-sector collaborative project is building a broad range of reliable evidence of the technological, market, and social conditions needed for a greener, more flexible and fair electricity system. It is also learning what changes need to be made within national and local policy to enable this to happen. Find out more at project-leo.co.uk



WITH FUNDING FROM



CASE STUDY

Retrofitting an 1880 end-of-terrace family home in East Oxford

Energy expert Jan Rosenow has reiterated the importance of home retrofit in the media countless times. So it was important for him to practise what he preaches, reducing energy use in his own home to cut the carbon footprint.

The family had already installed an air source heat pump to reduce the carbon impact of their heating system. Further work was needed to ensure the home was well-insulated and not losing heat through gaps in the building's fabric, ensuring the heat pump was as effective as possible. Therefore, based on recommendations in their Whole House Plan, the following measures were installed through Cosy Homes:

- **Wood fibre internal wall insulation (IWI)** was installed in the front of the house, a bay window which was previously completely uninsulated.
- Some windows were replaced with new **triple glazed windows** – especially older sash windows.
- The **front door** was replaced to reduce draughts.

Impact

Cost savings: 60% estimated savings on energy bills

Carbon emissions: 2 tonnes of CO₂ emissions saved every year – from 4.00t to 2.185t*

EPC rating: the home went from EPC D to EPC C

Comfort: before the retrofit the house was noticeably colder in the older parts – it's now warm and comfortable throughout.



Cosy Homes Oxfordshire is a whole-house retrofit service aiming to make it simple for homeowners in Oxfordshire to improve energy efficiency in their homes.

The service has been in pilot phase for two years (2019/2021), funded by BEIS. This funding has allowed us to design and test an end-to-end domestic whole-house retrofit service for the able-to-pay market in Oxfordshire, building on existing experience of this model from project partner RetrofitWorks.

During the pilot phase we have learned a huge amount about home retrofit – from the marketing, to engaging with contractors, to delivering work on-site. These learnings are crucial if we are to build the market for home retrofit across the UK, and reduce the carbon impact of our homes.

The pilot phase was just the beginning, and we are incredibly proud of what has been achieved. Programme partners RetrofitWorks and Low Carbon Hub have committed to continue the programme into 2021/22 because of the importance both organisations place on solving the challenge of energy efficiency in the UK's existing housing stock.

Planet

what we've delivered



People

who we've reached





www.lowcarbonhub.org

info@lowcarbonhub.org • 01865 246 099

**Low Carbon Hub, Wood Centre for Innovation,
Stansfeld Park, Headington, Oxford OX3 8SB**

The Low Carbon Hub is two organisations working together: The Low Carbon Hub IPS Limited (registration number: 31903R) and the Low Carbon Hub Community Interest Company (registration number: 7583663).

The Low Carbon Hub IPS Limited is a Registered Society that operates for the benefit of the community.

It generates income from the Feed-in Tariff and by selling renewable electricity. It aims to make a surplus that will enable the Low Carbon Hub IPS Limited and Low Carbon Hub CIC to lower carbon emissions across

Oxfordshire by helping businesses, the public sector, and communities to develop renewable energy projects and reduce energy demand.

To the best of our knowledge, the information contained herein is accurate and reliable as of 31 August 2021.

Both are registered in England and Wales and the registered address is
Wood Centre for Innovation, Stansfeld Park, Quarry Road, Headington, Oxford OX3 8SB

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