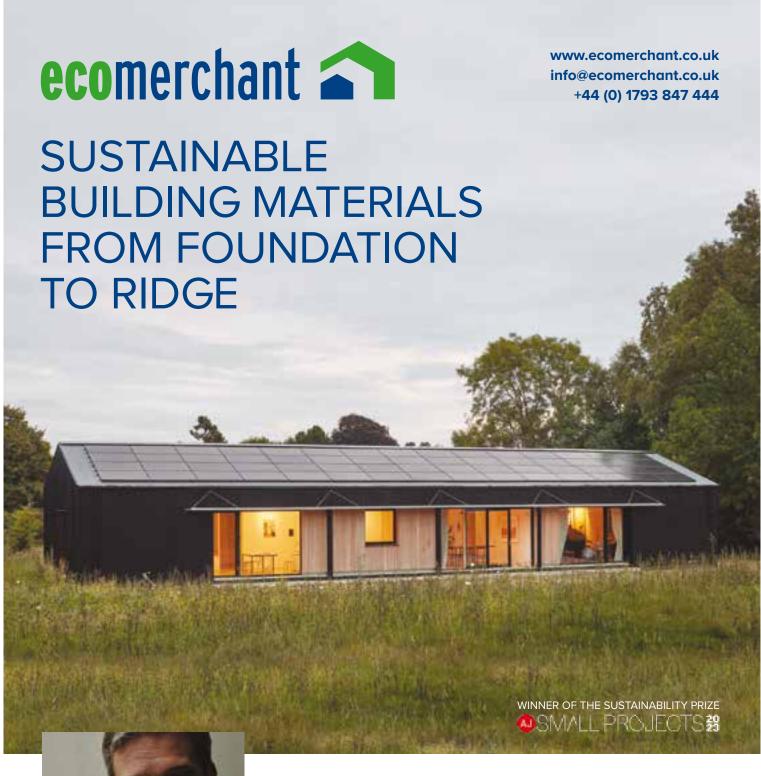
Clean Slate

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Charlie Luxton

Principal, Charlie Luxton Design

Black Barn Studios by Charlie Luxton Design Winner of Architects' Journal Sustainability Prize 2023













CONTENTS

IN THIS ISSUE

2. CAT news

The latest news from the Centre.

7. More solar energy for CAT

Find out more about how we are working with a local community renewables project to add around 50kW of new photovoltaic generation to our site's power system.

8. Listening and learning in a low-income community

CAT graduate **Joanne Lyons** discusses what she has learned from spending time with a low-income community in South London, as part of her dissertation research project.

11. CAT Conversations

Marketing and Communications Officer, Myfi Fenwick, interviews current residential Gardens volunteer Georgia Davies.

12. Transforming community energy decision making

CAT graduate **Anna Hartley** introduces CELESTE, a new system that enables anyone to explore the potential for renewable energy projects in their local area.

16. The rise of local resilience

Paul Allen explores what we mean by resilience and how it can link up many different aspects of our lives.

18. CAT welcomes permaculture group

Hear about the recent group visit to CAT from the Permaculture 4 Life course.

19. CAT Stories

Meet CAT graduate **Rhiannon Munro** who is using her knowledge and skills from studying at CAT to make positive change happen.

20. Make a gift that lasts generations

Learn how leaving a gift to CAT in your will can the rest of the natural world for many years to come.

Cover image: Myfi Fenwick.

Editorial Board: Alis Rees, Alexandra Hamer, Cathy Cole,

Eileen Kinsman, Freya Randall, Ian Davies, Joel Rawson, and Paul Allen.

Copyediting: Richard Steele.

Design: Graham Preston. (grahamjpreston@hotmail.com).

The opinions expressed are those of individual originators, not necessarily those of CAT.

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Published by CAT Charity Ltd., Machynlleth, Powys SY20 9AZ. Registered charity no. 265239 **Printed by** Welshpool Printing Group, Welshpool • 01938 552260 • www.wpg-group.com

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EDITORIAL



Eileen Kinsman

Stronger together

onnection – the theme of this summer's CAT Conference – is more important than ever.

It is through connected communities that we can amplify our voices, our actions and our impact. While large-scale political action on the climate and nature crisis remains woefully insufficient, smaller-scale community action is growing. At school, in the workplace, and through local community groups, people across the country and beyond are asking what meaningful actions they can take together to improve their prospects.

Thanks to your support, CAT is sharing positive practical solutions, giving people the means to build the future they want to see for themselves.

As ever, this edition of *Clean Slate* is packed with reasons to be hopeful – new insight into how communities can build their resilience to future shocks; innovative tools that empower communities to start local energy projects; ideas about how we might inspire people to think differently about climate change; and more.

CAT has over 50 years' experience in connecting people with the knowledge, skills and tools they need. By bringing together likeminded people and showing them what a better future could look like, we're helping them transform their compassion for the natural world and each other into action.

As an essential part of our community, you are enabling us to continue meeting the complex challenges we face head on, with new ways of living, learning and working together that benefit everyone and enrich nature.

Thank you for helping to build a safer, healthier and fairer world.

Eileen Kinsman, Co-Chief Executive Officer





CAT attends Futurebuild

CAT staff, students and graduates were invited to join Futurebuild at London's ExCel in March, to share positive environmental solutions.

The annual conference and trade show brings together organisations and companies that are building a better future for the built environment. Celebrating its 20th anniversary, the theme for Futurebuild 2025 was Impact, marking two decades of driving positive change in communities. It was an excellent opportunity to share how CAT is enabling people to make a difference to the built environment.

Over the three days, we talked to people about our Master's courses, practical training in sustainable building, and stories from graduates now working to change the industry for the better.

Eileen Kinsman meets up with Green Party Co-leader

In February CAT's Co-CEO Eileen Kinsman caught up with former CAT CEO, now Co-leader of the Green Party, and MP for Waveney Valley, Adrian Ramsay in the House of Commons. During the meeting, they discussed a host of issues and developments relating to the climate and biodiversity emergency including how CAT's Zero Carbon Britain project provides a useful, independent model of what net zero looks like, how our Carbon Literacy training and Innovation Lab is helping councils at all levels, the urgent need for green skills and how our Graduate School courses are helping provide our graduates with the skills to make a difference, in addition to CAT's exciting future plans.





New monthly volunteer days

On the first Tuesday of every month, CAT will be welcoming day volunteers. Come along and lend a hand in our gardens and woodlands to learn new skills, meet likeminded people and work together on solutions to the climate and nature emergency.

Volunteers were responsible for founding CAT over 50 years ago. Our monthly volunteering days are your way to become part of this ongoing story.

We are excited to welcome people from all walks of life. There is no need to be an expert in gardening or working within woodlands. All that's needed is a passion for sustainability and being out in nature. Previous day volunteers have worked alongside our residential volunteers on projects ranging from dead hedging in the woods to weaving a live willow structure in the organic gardens.

To join us, visit www.cat.org.uk/latest/volunteer or get in touch with our Volunteering Manager Holly Owen at volunteering@cat.org.uk.



CAT students run workshops marking National Gallery bicentenary

Architecture students from CAT's Graduate School recently ran a series of willow weaving days as part of their build for the Triumph of Art project led by artist Jeremy Deller to celebrate the National Gallery's bicentenary.

The resulting woven frames will form part of the roof of a structure CAT students have designed and built working with Mostyn Gallery in Llandudno. The structure will be seen for the first time in a procession through Wales and the streets of London and as part of a major performance in Trafalgar Square in July.

Student Hannah Maxey said, "This has been an exciting, challenging and inspiring project to be a part of. The skills I have picked up working as part of a team to take the project from brief to build are innumerable. It is especially exciting that the project will go on to showcase the beauty of natural materials in the centre of London."

CAT Co-CEO Eileen Kinsman said, "It is inspiring to see how our students have applied their learning and understanding of implementing sustainable design and construction to this opportunity. It has been a real pleasure to see the build come to life and we are excited to see it revealed this summer."



Previous CAT Chair awarded MBE

On 25 March, Michael (Mick) Taylor, Chair of CAT's Board of Trustees between 2010 and 2022, received an MBE (Member of the Order of the British Empire) for services to charity and innovation as part of the 2025 New Year Honours List.

With a keen interest in the environment and living a sustainable life, Mick has been an integral part of CAT's community. Since stepping down as Chair, he has continued to be involved with our work as an environmental education charity in an advisory capacity and as an independent member of the steering group overseeing our redevelopment plans.

Mick said, "I am delighted to have accepted this honour, especially due to its connection to my part in such a unique organisation like CAT, at a time when its work on environmental education and solutions is so important. It has been a privilege to be part of CAT's past, present and future. I'm incredibly proud of our collective achievements and excited to see CAT continue to play a crucial role in empowering people with the skills, knowledge and inspiration needed to create a brighter future."

Congratulations to Mick on this remarkable achievement and a huge thank you for all your hard work and dedication to CAT over the years.

Thank you for taking part in our strategy survey

We would like to thank our members and supporters for their valuable reflections in response to our survey exploring CAT's vision for the future, our charity mission statement and our core values. We had more than 700 responses from our passionate and knowledgeable supporter base! Though we received a wide variety of thoughts and ideas, it was heartening that around 80% of respondents felt CAT's vision, mission and values still reflected where we should be today.

The information gathered from the survey has gone on to inform the next stages of the strategy process, including a detailed analysis of CAT's internal and external opportunities. The vision, mission and values will be revisited nearer the end of the strategy development process. We can't wait to update everyone with our new emerging strategic priorities for the next five years. Keep an eye out for more opportunities to get involved in our strategic thinking on our website, in our e-newsletter and in *Clean Slate*.

CAT's woodlands receive National Forest status

We are delighted to announce that CAT's woodlands were selected to receive National Forest for Wales status, recognising them as exemplary and connecting us to a nationwide network of other woodlands.

With the hard work of our Estates team and volunteers, CAT has been actively managing the woodlands on our site for the last 16 years, and the surrounding forest is currently used in several diverse ways. At the heart of what we do is ensuring our management benefits nature and biodiversity. An exciting indicator of this is an increase in our numbers of pied flycatchers, a bird that likes wet woodlands with more open space. The transformation of our Coed Gwern

woodland from old commercial coniferous forest to a mixed woodland has also made for a beautiful learning context, providing a living laboratory for short course participants, CAT students and organised visits.

Woodland and Natural Resources Officer Rob Goodsell said, "It was a real honour to be awarded the National Forest status. This provides a fantastic opportunity to be part of what Wales should be in terms of timber for the future, biodiversity support and cultural heritage. Providing a part of a continuous wooded place we can use for human interaction with the natural world, wellbeing and learning is what we do well here at CAT."

CAT graduates and students are invited to our Graduate Symposium

On 24 and 25 May, we will be welcoming CAT graduates and students to join us for the 2025 CAT Graduate Symposium. We will hear about how CAT's graduate community is taking action on environmental issues and developing and implementing ways of addressing the climate and nature emergency.

The weekend programme will include keynote talks from CAT graduates and staff, alongside inspiring panel discussions and breakout sessions exploring what our graduates are doing now. Activities will be held across the CAT site, giving graduates the opportunity to connect with us again and allowing for discussion around future plans for CAT and the Graduate School.

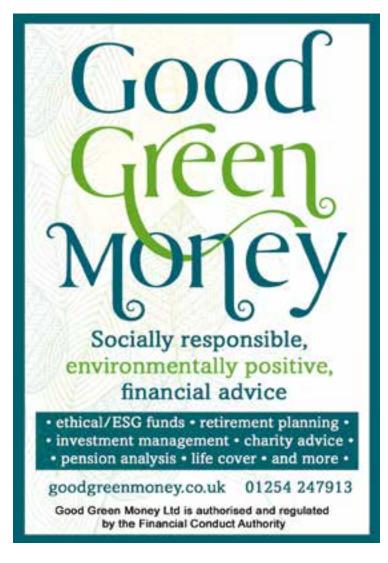
Book your place at www.cat.org.uk/cat-graduate-symposium.

ANNUAL CAT CONFERENCE

15 - 17 AUGUST 2025

Join us for talks and workshops exploring the skills and knowledge needed to take action for a safer, healthier and fairer future. Networking
Nature-connection
Skill-sharing







CAT news

Abermaw student consultation trip

In December, students on our Sustainable Architecture course exhibited designs at the Dragon Theatre in Abermaw (Barmouth) inspired by their recent community engagement events.



Annually, the M.Arch student group works with a community on a project. This academic year, they were tasked with designing a space for Abermaw.

The designs were the product of engaged dialogue with communities. Students visited the town to talk to local people and visiting tourists, hosted a hub in the town council-funded 'Tanio Bermo' and, supported by artist Owen Griffiths, ran several public engagement activities to explore collective enquiry and conversations. Ideas, drawings and outputs from the activities were presented at the event alongside their designs.

Gwyn Stacey, Senior Lecturer on the M.Arch course, said, "It's imperative that our students learn about the process of not just engaging with communities but learning from them and embedding them into the sustainable futures we propose. Often the answers are closer to home than people imagine. Working with communities local to CAT and in Wales offers our students the opportunity to meaningfully engage with often remote communities, putting into action the 'act local' while they continue to 'think global'."

If you'd like to find out more about studying at CAT, book your place on one of our upcoming open days at www.cat.org.uk/open-days.

Paul Allen represents CAT

Over the past few months, CAT's Zero Carbon Britain Knowledge and Outreach Officer Paul Allen has attended numerous events and workshops hearing about new projects and collaborations across Wales.

In January, he attended the launch of an exciting new 'Delivering Net Zero' project run by Tai ar y Cyd. Twenty-three social landlords came together with industry experts, and Welsh Government to tackle both the housing and climate challenge. They are currently working together to create 20,000 new affordable, low-carbon, high-quality homes for Wales, which can also strengthen the Welsh economy by using local supply chains. It was great to hear about the project and how this can feed into opportunities for course development and training.

Paul also represented CAT at a Welsh Government's Futures and Foresight event at the National Library of Wales in Aberystwyth, designed to increase skills and confidence in long-term thinking. This was part of a series of events to celebrate the 10th anniversary year of the Well-being of Future Generations Act. The event offered a space for forward-thinking people to get together and exchange ideas and future visions. It was organised in collaboration with the Welsh Government, the Office of the Future Generations Commissioner for Wales, Natural Resources Wales and NHS Wales.

Book your place at the 2025 CAT Conference

We are pleased to announce that booking is now open for this year's CAT Conference, which will take place between Friday 15 August and Sunday 17 August. Join us to hear diverse perspectives and contribute to meaningful discussions through a packed programme of workshops, talks and activities.

With the world facing many interrelated challenges that cannot be tackled in isolation, our theme this year will be connection, creating a space for us to explore positive solutions together.

You'll have the opportunity to share your own experiences, projects, expertise or personal work through our much-loved member-led 'show and tell' sessions. The rest of the programme will be available on our booking page and shared with attendees in the coming months.

To book your place at this special weekend, go to www.cat.org.uk/events/members-conference or get in touch with our Membership team on 01654 705988.

Ashley Family Foundation visit to CAT

We welcomed Emma, textile-designer Laura Ashley's daughter, from the Ashley Family Foundation to CAT on 17 January to discuss how as a charity we inform, inspire and enable society to respond to the climate and nature emergency. The Ashley Foundation is dedicated to inspiring environmental sustainability and creative arts in Wales. The visit to CAT provided an insight into our unique teaching facilities and our beautiful home in the heart of Mid Wales.

To combat the climate and nature crisis we need communities and networks to come together to enact positive change. Emma's visit was a great way to nurture such an important connection. Reflecting on her visit, Emma said, "It was such a pleasure! Thank you so much for the tour, presentation and lunch. I absolutely loved my visit and meeting the super interesting students really helped me get the feel of what CAT is all about. I have been talking to everyone about it since!"

Student bursaries for 2025

Thanks to the generosity of CAT supporters, donors and trusts, we have been able to offer 10 bursaries to new students starting their studies with us in 2025.

The bursaries cover a range of postgraduate programmes, from ecology to architecture, and will allow students who would otherwise be unable to study at CAT to explore a big-picture, integrated approach to sustainability.

Sonia Cunningham, previous recipient of the Sir John Houghton Bursary, said, "I feel extremely fortunate to have received a bursary, allowing me the opportunity to pursue my passion for learning about sustainable solutions for climate change at CAT."

See more about funding for postgraduate courses at www.cat.org. uk/bursary and apply before 11 June 2025. For more information on studying at CAT contact our Admissions team on 01645 705974 or email study@cat. org.uk.





More solar energy for CAT

As the demand for electric vehicle charging increases from our students and visiting groups, we are working with a local community renewables project to add around 50kW of new photovoltaic generation to our site's power system.



s well as using energy efficiently, increasing the renewable supply to meet CAT's energy demands has been a priority from the start. Over the decades, and continuing today, we have been supporting local community energy projects to make this happen.

Back in 2000, CAT worked with a group of local enthusiastic experts called Bro Dyfi Community Renewables (BDCR) to develop a community-owned wind power scheme. CAT agreed to purchase

BDCR engineers installing battery

store and control system

the power from BDCR's initial wind turbine. This would offer an innovative opportunity to demonstrate community renewables to our visitors and students while securing a supply of clean electricity.

Since then, BDCR has gone from strength to strength. In 2010 local shareholder investments enabled the group to install a refurbished 500kW Nordtank wind turbine on the hill above CAT, which has worked well generating clean energy, sharing the income with local people and using the profits for community-benefit projects.

Adding PV to the mix

As ever, BDCR is enthusiastic about increasing community renewable power generation and is now including photovoltaics (PV). Mixing wind and PV works very well, as they tend to generate power at different times and so make the best use of both the site and the grid connection. With support from Ynni Cymru, BDCR has installed a new 300kW PV array at its wind turbine site. CAT was keen to support this by purchasing some of the new solar electricity through a private supply connection. At peak times, this will enable the CAT site to access around 50kW of extra renewable power.

As the new ground-mounted PV array is approximately 1km from CAT, there was a need to add a connection cable. An existing cable from the first V17 wind turbine was refurbished and recommissioned, with BDCR exporting

power directly to CAT's energy control room.

The installation and CAT connection work was done by local experts and installers, supporting the community on CAT's doorstep. BDCR is now considering launching another local share offer, which would increase its membership and share the income with the wider community.

How will this additional renewable energy be used?

As increasing numbers of people come to CAT by electric cars and bikes, this new development will help meet the charging demand.

As part of the project, one of CAT's spinout companies DULAS Ltd will install a container unit next to the parking area. This will house a control room containing 50kW-hours of battery storage and control equipment,



The battery storage container unit arrives at CAT site.

accessible to support teaching on site. On the outside, we will mount two new 22kW car chargers, which people will be able to use either with a card or by scanning a QR code and paying online. There will also be an e-bike charger with provision for locking and charging two bikes.

Battery capacity could be increased as needed, as they will become more important in absorbing excess generation as Cynefin progresses and the amount of building mounted PV increases.

This project is scheduled for completion by the end of March 2025, which means CAT will benefit from a complete PV season in the first year.



Ariennir gan **Lywodraeth Cymru**Funded by **Welsh Government**

Listening and learning in a low-income community

Local communities across the UK urgently need to build their resilience to the climate and nature crisis, but there are systemic hurdles to overcome. CAT graduate **Joanne Lyons** discusses what she has learned from spending time with a low-income community in South London, as part of her dissertation research project.



Rob Hopkins, has underlined the powerful potential of local action: "If we wait for the governments, it'll be too little, too late; if we act as individuals, it'll be too little; but if we act as communities, it might just be enough, just in time."

Many communities, however, experience significant barriers that inhibit transformational resilience efforts. This is no more apparent than in low-income communities, where marginalisations relating, for example, to gender, ethnicity or disability, frequently intersect through systemic disadvantage. Here the impacts of climate change multiply the daily burdens already experienced by community members, for example, increasing food insecurity or exposure to extreme temperatures from poor housing conditions. Immediate survival concerns are of the first order, future challenges not so much.

One such community is New Addington in South London – the focus of my recent dissertation research at CAT. My study explored the factors that influence this low-income community's collective determination to build its resilience to climate change.

New Addington

Though part of Croydon, London's largest borough, New Addington's location is almost rural, set apart from the rest of the borough at the end of a tram line. Sprawling out over a hillside and surrounded by green spaces, its historical nickname 'Little Siberia' says as much about its colder microclimate as the community's perception of isolation from the rest of the city.

With more than 22,000 residents,

New Addington's two wards are among England's most deprived in terms of socio-economic disadvantage. The community has faced many crises over the years, such as the London riots in 2011 and the fatal tram crash of 2016. Yet, if you were to go only by its unflattering external reputation, you would easily miss its stories of impressive social cohesion, residents' sacrificial generosity, and collective stands against injustice.

Embarking on my research, I was aware that there is far more to this community than first meets the eye. However, I was also conscious of my privileged position as an academic researcher. Was it even fair, for example, to suggest that a community like New Addington could – or even should – be building its resilience to climate change, when residents' day-to-day concerns are largely focused, out of necessity, on their immediate survival rather than a longer-term future?

Justice-framed research design

To apply a consistent justice lens to my study, I designed my research as a listening exercise, a 'mini-ethnographic case study'. I used archival research, participatory observations and semi-structured interviews to foreground local knowledge and experience in generating the research findings.

By adopting Braun and Clarke's





Reflexive Thematic Analysis approach, I aimed to shape the study's themes to faithfully reflect the voices of the community. Continual reflexive practice allowed me to evaluate my insider-outsider position as resident-researcher and to remain alert to how my personal privilege and associated biases might influence the research process.

The data gathered from my conversations with community organisers, volunteers and residents was rich and multi-layered. The resulting themes told a nuanced story of the community's perceptions of its future-facing resilience potential.

Stronger together

The data illuminated distinct traits of existing community resilience in New Addington, marked particularly by strong social cohesion. This was exemplified by a deeply connected network of grassroots organisations pooling and harnessing its collective resources to serve the needs of the residents. The local belief that this is a community that "gets things done" was underscored by frequent accounts of crisis and adversity, in response to which the community had taken swift and effective action. For example, there were the immediate donations to save a support centre for senior citizens from imminent closure; the protection of the

community against would-be arsonists during the London riots; and the rapid mobilising of a mutual aid group within 24 hours of the first Covid lockdown.

The energy of the community's crisis response was often propelled by an emotive element, such as moral outrage at injustice or collective grief in moments of tragedy. Swift and decisive group-level action appeared almost inevitable because of a profound sense of place-based solidarity. As one research participant observed, "People (in New Addington) know their need of each other."

Barriers to proactive resilience

Such examples of resilience demonstrated reactive responses, however. The community's belief in its potential for building more proactive, transformation-focused resilience to climate change was hampered by a complex combination of structural and psychological barriers.

Intense socio-economic deprivation, with associated impacts such as poor health outcomes, time poverty and food insecurity, severely limited residents' mental and emotional bandwidth for responding to longer-term challenges. This was compounded by a perceived lack of autonomy over community spaces (both buildings and green

spaces), reducing residents' sense of responsibility and control over their living environment. These structural barriers interacted with historically internalised perceptions of being a community 'done to' by external institutions – a perception reinforced by the devastating effects of austerity measures on community services; and by unintended consequences of policies, such as London's recent Ultra-Low Emissions Zone (ULEZ) expansion.

Pockets of transformational potential

Nevertheless, the study identified promising pockets of potential for proactively building longer-term resilience. The supportive network of community organisations fiercely champions the community's right to shape its own future and spaces; avidly supports citizen-led initiatives; and promotes collective change-making projects. This network also acts as a bridge between local government and residents, strengthening collaborative governance and building trust across multi-stakeholder relations. In addition, New Addington's surrounding green spaces offer significant opportunities for exploring community energy or food-growing projects and enhancing nature connection.

At present, and as noted by the research participants themselves, there is a lack of holistic understanding of climate change and its intersection with the community's existing challenges. There is limited awareness, for example, of its intergenerational justice impacts on New Addington's young people, for whom there is already deep-seated, collective concern. Hence a further area of potential lies in developing opportunities to build community members' holistic awareness, allowing them to connect the dots and better understand the need for building proactive resilience to climate change. As the overall research implied, if there is a collective awareness of a given need and that is underpinned by an emotive element, such as moral outrage at injustice, the community's belief in its ability to effect change is such that members will mobilise a response and get the job done.

Listening to learn

The findings of my research are, of course, specific to New Addington's particular blend of factors that influence its determination to build transformational resilience as a community. The models I developed to reflect the data, including a proposed model of community-level Self-

Determination Theory, may provide useful points of departure for other researchers interested in justice-framed community resilience. However, the core transferable lessons from this study arise from the research approach itself.

Central to the study was the application of deep listening. This meant not listening to confirm my existing assumptions but listening to deeply understand and get to grips with nuanced reflections of systemic disadvantage, autonomy over and responsibility towards one's living environment, collective selfbelief and agency. Crucially, the reflexive thematic analysis prompted a consistent examination of my own privilege and biased assumptions, leaving space for some unexpected (life) lessons.

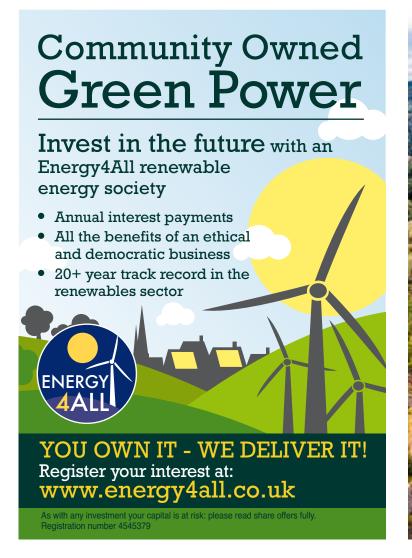
As researchers and activists in the climate space, it is important to acknowledge that, as paradoxical as it may seem, it is a privilege to even have the headspace to be thinking about climate change and what we do about it. For those that are in day-to-day survival mode, we cannot assume it even makes it onto the list.

At the same time, it is profoundly biased to assume that marginalised communities, by dint of their disadvantage, lack the inherent capacities to transform and meet the challenges of the future. Despite substantial systemic barriers, the case of New Addington shows just how mighty this community's collective potential is for building transformational resilience to climate change. As one research participant affirmed, "The sky's definitely the limit."

Since concluding my research, I have delivered talks in New Addington to share the findings. These have resonated well with community members who have found their experiences and beliefs to have been faithfully reflected. There is an obvious appetite to take this further, and I'm eager to see New Addington's next steps towards building its proactive resilience to climate change.

About the author

Joanne completed her MSc in Sustainability and Behaviour Change at CAT in June 2024. She is a freelance coach, facilitator and trainer, working at the intersection of the arts, social justice and climate action. Joanne also writes a biweekly newsletter, breaking down complex climate topics and building agency for personal and community-level change. She welcomes exploratory conversations for potential collaborations. Connect at www.linkedin.com/in/joannelyonschangeconsultant or hello@joannelyons.com.







Transforming community energy decision making

To move from fossil fuel use to local renewables, communities need the right knowledge, skills and tools. CAT graduate **Anna Hartley** introduces CELESTE, a new system that enables anyone to explore the potential for renewable energy projects in their local area.

It is widely acknowledged that to meet global net-zero carbon goals and mitigate the worst effects of climate change, fossil fuels must be replaced as much as possible by renewable energy.

While we hear a lot about large-scale multi-million dollar solar and wind farms owned and managed by corporations and states, small-scale renewable energy communities (RECs), in which citizens come together to produce, exchange and use renewable energy, have also been identified as a key component in this transition.

No two RECs are exactly the same, but the EU describes them as legal entities that combine both non-commercial economic aims with environmental and social community aims. They share open and voluntary governance, shared ownership and control by members (who are also consumers), and have as a main purpose creating social and environmental benefits instead of financial profits.

Sounds fantastic, right? Yet in France, where I live, RECs are little known and poorly understood. What if there was a programme that could fast-track the development of RECs while also raising awareness about energy systems more broadly? That's the question I investigated during the dissertation period of my MSc Sustainability in Energy Provision and Demand Management at CAT.

Bridging the knowledge gap

Assessing a site for its suitability for a renewable energy project is not overly complex, but it does require some specialised knowledge. If we want thousands of small communities all over the world to start building them, it seems evident that there should be more tools available that can provide this.

I felt sure that by pulling together a range of freely available online datasets I could produce a program designed for non-expert users that would do simplified feasibility assessments for RECs. This should only require the users' geographic location and their willingness to engage in some energy futuring to operate.

Harnessing digital tools

As the research progressed, my conviction that a tool like this was necessary and useful grew. Almost all the research and discussion around RECs focuses on their technical, economic and policy dimensions, with little attention paid to involving the broader public, who are the very people responsible for creating and running RECs.

Secondly, digital tools concerning renewable energy development are overwhelmingly aimed at expert users, very limited in scope, and often expensive to access.

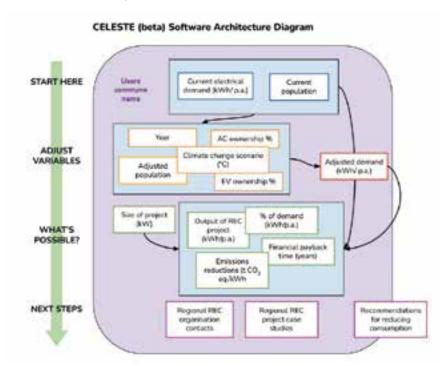
By the completion of my dissertation period, I had created a prototype program known as the CELESTE Decision Support System. CELESTE stands for Créons des Énergies Locales, Écologiques, Solidaires et Transformatrices Ensemble (Creating Local, Ecological, Supportive and Transformative Energy Together).

CELESTE functions as an educational tool that uses the wealth of publicly available data, repackaging it in a useful way, rather than developing new complex systems. It is also modular and expandable, meaning that what is currently available is just the beginning, and there is no limit to the number and type of modules that could be added.

Whether the user takes action after using CELESTE is up to them, but I hope they will at least feel more informed and engaged in the conversation around renewable energy. In this way, CELESTE is just as important as an engagement and educational tool as a systems modelling tool.

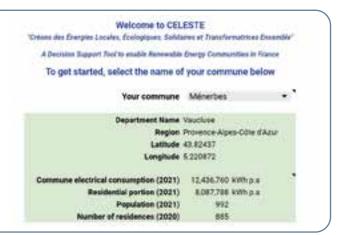
How does CELESTE work?

CELESTE has a simple interface and is designed to walk the user through four key stages, much like a carbon footprint calculator.

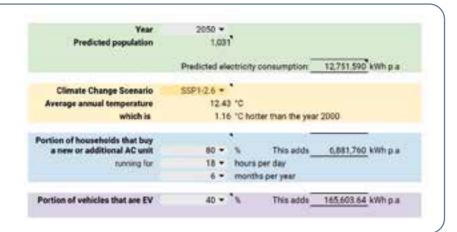


1. Start here: The user enters the name of their commune in France to view data such as the commune's population, total energy consumption for the most recent year available (in this case, 2021), and the portion of that consumption that corresponds to the residential sector.

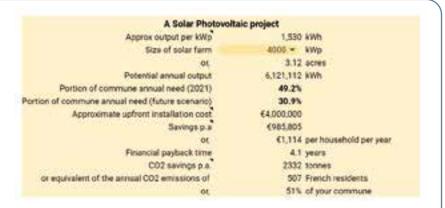
2. Adjust variables: Here, the user begins imagining their energy future, toggling different variables to see how these impact upon the commune's electricity demand, such as the year (up to 2060), population predictions, climate change scenarios, and consumption patterns like electric vehicles and air conditioner usage. A bar chart clearly shows the actual electricity demand against the future demand as per what the user has inputted.



3. What's possible?: At this stage, the user gets to start designing a new energy system. They are presented with a basic feasibility assessment for a solar PV or onshore wind farm in their commune. The user can toggle the size of the installation and see how this impacts physical size, what percentage of the commune's electricity need this would meet, costing and payback time, and CO_2 emissions reduction.



4. Next steps: Finally, the user is shown recommendations about ways to reduce their energy consumption, local and national organisations that support RECs, EC consultants who can begin advising them on their REC journey, and a list of RECs already functioning in their geographic area that they can visit and investigate.



Check out the	successful n	enewable energy comm	unity projects in yo	our region		
Project name	Energy type	Stage	Commune	Department	Size of installation (kW)	Production (kWh p.a)
Chaufferle bore situyenne de Notre-Dame du-Li	Biomase	In Production	Saint-Étienne-du-L	Hautes-Alpes		0
Contatilian	Solar PV	In Production	La Ciotat	Bouches-du-Rh	dne	à
Energia utasenne do Paus d'Asignon (Energia)	Solar PV	Planning/Construction	Avignori	Vaucluse		¢
Contrales communecides Energies Modernes i	Solar PV	Early Planning	Barcelonnette	Alpes de Hauts	Provence	
SVIPPS	Solar PV	In Production	Pays d'Aor	Southes-du-Rh	. 34	280,000
Soleti de l'Arc	Solar PV	In Production	Veluux	Bouches-du-Rh	9.4	500,000
Pile Energ'Erkous des Présides d'Azur i Energ	Solar PV	In Production	Saint Vallier-de-Th	Alpes Maritime	62	271,000
Provence Energia Ottopenne	Hydroelectric	in Production	Velaux	Bouches-du-Rh	140	450,000
Energies, Roccycellablys, du Gaperquis	Solar PV	In Production	Cap	Hautes-Alpes	15	44,000
Projet photovoltakase de Mallemort	Solar PV	Planning/Construction	Mallemort	Bouches-du-Rh	2,700	4,770,000
Solata Chris	Solar PV	In Production	Ventabren.	Bouches-du-Rh	5,000	8,179,000
CIC Gapeou Energie Ottopenne de la Vallee du l	Solar PV	Early Planning	Sollies Pont	Var	99	152,000
SCIC Gapews Energie Editoyenne da la Vallée du	Solar PV	Early Planning	SOLLIES-PONT	Vair	99	152,000
Le Sofel, de Chaneric	Solar PV	Planning/Construction	Jausiers	Albee-de-Hauts	4,300	6,501,000
Parc phetovoltation au sol des Hauts inclores	Solar PV	Planning/Construction	Mérindol	Vauctuse	1,400	2,100,000
Centrales communences sur le Tot des Alpite	Solar PV	In Production	Lamanon	Bouches-du-Rh	24	51,000
Centrales soraires de Saint-Pores I Évercre Part	Solar PV	Planning/Construction	Saint-Pons	Alces-de-Hauta	17.100	23,940,000

What's next?

CELESTE is still a prototype, built in Google Sheets and using predownloaded datasets for a limited number of communes. Many of the calculations applied to the data are quite rough, using rule-of-thumb estimates when trusted, peer-review data is missing. However, as better information becomes available, it can easily be integrated, improving the quality of the outputs.

Who can use CELESTE?

I have registered CELESTE under a Creative Commons licence so that it can be shared, adapted, and remixed by any non-commercial entity that wants to take it further.

While CELESTE is only currently crunching data for France, there is no reason why it can't be adapted to anywhere in the world. Countries could substitute communes with their own administrative divisions, plug in their local electrical and population datasets, and adjust calculations - for example about typical electrical demand of an electric vehicle per annum, and the cost of renewable technologies - according to the most up-to-date information for their area.

No two countries will have the exact

same kind of data, so it is exciting to consider the range of additional modules that could be designed and incorporated into CELESTE. Hydroelectricity potential, battery storage and grid flexibility, thermo-sensibility metrics, and access to local grants and subsidies are just a handful of the modules that could be added, given access to the right data and with the right minds on the job.

Furthermore, CELESTE could be used by existing RECs to see how their installations would perform under different climate, temporal and behavioural conditions, or by schools and institutions as an educational tool to improve understanding of the topic.

Explore CELESTE: www.tiny.url. com/celestedss (B)

About the author

Anna Hartley is an Australian writer who has lived in Paris and Beijing since 2011. Her work has been published in The Washington Post, France 24, Forbes Travel Guide, The Houston Chronicle, The New Zealand Herald, The Vancouver Sun, the Beijinger, and Babbel Magazine. She graduated from CAT's Sustainability in Energy Provision and Demand Management in 2024.

CAT student dissertations

During their final year of study on a Masters in Sustainability at CAT, students explore a relevant topic in-depth by completing a final dissertation. This involves designing, investigating, and presenting an extended and independently conceived piece of research within their field of study. Equally important, the dissertation enables students to showcase the skills in critical thinking, data collection and analysis that they have developed throughout their degree.

The dissertation builds upon the current state of knowledge and some dissertations go on to be published in scientific journals or become the basis of further research. Students have also used the dissertation to explore the viability of a business idea or product that has a positive impact.

Want to find out more about studying at CAT? Get in touch study@cat.org.uk 01645 705974.















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The rise of local resilience

Across society, there is growing recognition of the need to build greater resilience in how we provide for ourselves. **Paul Allen** explores what we mean by resilience and how it can link up many different aspects of our lives.



cross the UK and beyond, communities are facing a new era of profound and abrupt changes. To rise to this challenge, we must recognise that we have become embedded in a 'brittle' society. In globalising supply chains, the free-market economy has removed the diversity, variety and natural connections that underpin communities' ability to 'bounce back'. Failures can quickly begin to feedback on each other, carrying the challenges beyond any government or local authority's ability to cope, without active citizen support.

Positive resilience

Although not of their own making, these changes are compelling communities to reconsider how they move forward into the second quarter of the 21st century. Local resilience is going to be an important factor in this transition. This is typically defined in two ways:

- The speed and competence with which a household, community, town or region can prepare for and recover from shocks or dislocation.
- A measure of how well a system can flip into a totally different but still workable living system, should the original one become untenable.

Both definitions are useful – but they only view resilience as a means of dealing with negative impacts. It is also useful for us to consider a third type of resilience: Our ability to proactively and collectively prepare for challenges while also unleashing a positive force within our communities which brings us together.

For example, as we switch from importing fossil fuels to using the renewable energy assets on our doorstep, we need to be smart, flexible and collaborative. By working together, we can harness the benefits locally, as many community renewable projects have demonstrated. Of course, reclaiming the power in energy is not the only action needed to increase our resilience. Communities can multi-solve across a wide range of areas, including health, food, transport, skills, equity and local cohesion.

By working collectively to develop our physical resilience, we also build psychological resilience, both on a personal and community level. Once we are actively working to increase our resilience, we feel better about our position. Being on such a trajectory brings us into relationships with others and so builds positive pathways into a new community with a sense of collective purpose. This alone can improve our quality of life, as many projects have demonstrated.

Resilient together

When disrupted, nature reacts in complex collective ways to return to a new balance. We can learn from this to

help us prepare for when human society is disrupted. We can build in resilience as a key factor in motivating local actions. Resilience can become a new lens through which we explore our lifestyles, our community, and the choices we make to support each other in challenging times.

Building local resilience is rooted in interpersonal networks. The links within our personal communities are clearly going to be important. However, developing a wider network of affinity groups beyond our immediate social circle is also invaluable. These people will form a group we can build deeper trust with - a first port of call in times of difficulty or opportunity. In the face of increasing power cuts, floods, droughts and snowfall, community resilience makes good sense to a lot of people. It strengthens communities and has all sorts of positive co-benefits. Across Scotland, the Community Resilience Volunteer Service (www.crvs.org.uk/ourwork) supports people from a wide range of different backgrounds who have the drive and commitment to put others first and support their communities.



Rethinking resilience can offer a powerful positive driver for engaging more deeply with our friends and neighbours. When people come together in common purpose, they can be a powerful force for change. For example, Somerset Prepared (www.somersetprepared.org.uk) is a partnership working closely with communities to help enhance local resilience to emergencies. It is made up of a diverse range of organisations able to provide advice, guidance and support to help volunteers and local community groups develop initiatives that enhance resilience in their area.

Just in Case

Resilience building is going to play an increasing role as we reshape our lives in the coming years, moving from the margins to become central in our communities. To help with this, new research on food security has just been released by the UK National Preparedness Commission. Led by regular CAT guest lecturer Professor Tim Lang, the Just in Case: narrowing the UK civil food resilience gap report (https://nationalpreparednesscommission.uk/publications/just-in-case-7-steps-to-narrow-the-uk-civil-food-resilience-gap) makes clear that our system needs reforming. The report highlights case studies that demonstrate what needs to be scaled up, including civic awareness, local and national policies, plus horticulture markets and community food projects.

Skills for the future

Building the resilience of our communities can deliver tangible benefits, as well as being a personally creative, connecting and empowering process. CAT recognises this and offers people the opportunity to learn new skills and have hands-on experiences in a diverse mix of areas, from renewables for households and eco-refurbishment to food growing and soil regeneration. We also offer bespoke training for groups, such as Civic Square and the Ecological Citizens Network. The knowledge, skills and tools we share will enable more people and their communities to make the vital transition to a more resilient future.

About the author

Paul is CAT's Zero Carbon Britain Knowledge and Outreach Coordinator. He has been involved with our research into zero carbon scenarios since the beginning, coordinating the development of research reports and liaising directly with government, industry, NGOs and the arts to share findings.







CAT welcomes permaculture group

In February, we were pleased to host another visit from people on the Permaculture 4 Life course. They joined our knowledgeable Engagement team on a detailed site tour and heard about our Zero Carbon Britain work.



ocated in the UNESCO Dyfi Biosphere, the CAT site is thriving with biodiversity. Pre-booked groups can explore the CAT gardens, nature areas and more. Through bespoke workshops and tours, people discover what makes our home in Mid Wales so special.

Permaculture teachers Angie Polkey and Alice Gray have visited CAT regularly over the years hosting their training courses. With teaching space available at CAT, both in the classroom and outdoors, their visits offer their course participants a unique mix of theory and practice.

Angie says, "We love to teach part of our annual permaculture design course at CAT because of the incredible wealth of demonstration exhibits, staff expertise and support, and fantastic teaching facilities. The whole site is a

living example of design approaches and technologies that can help us create the more beautiful, regenerative world that we know is possible and so urgently needed."Permaculture 4 Life aims to create a transformative journey, giving participants confidence in applying permaculture design tools to change their own lives and influence the bigger picture.

At the end of the course, the participants gave excellent feedback on how their visit to CAT supported their learning:

"I felt a deep emotional connection to the site after the tour. Knowing the history and seeing the current activities made it come alive. CAT is actively demonstrating the solutions to the global issues we are facing. It made me think about what part I can play in getting people to listen."

"CAT is certainly a unique place. As a first-time visitor, I was taken aback by how secluded the site is, nestled among and above a lush, hilly landscape. As we were to discover on the tour, the transformation from an old slate quarry is pretty remarkable. Despite this heavy development of the site, it still carries a tranquillity in the way that nature is threaded and weaved through even the most built-up centres of the site."

"Absolutely amazing – the tour was fascinating, and I learned a lot. I really valued seeing all the different building experiments with natural materials and loved exploring the site through a permaculture lens."

We are always pleased to host group visits on site. Whether you wish to come with a school, college or university, as a team away day or work conference, or as a community group that's working to create change, CAT is the perfect place to explore sustainability.

To book your group visit to CAT, get in touch with our Engagement team at education@cat.org.uk or head to www.cat. org.uk/groups-learning.



The group explore the Quarry Trail, connecting with nature.



CAT Stories: Rhiannon Munro

To tackle the climate and nature crisis, people need knowledge, skills and tools. Rhiannon Munro is a CAT graduate using her learning to make positive change happen.

Taking an MSc in Sustainability and Behaviour Change at CAT has enabled Rhiannon Munro to take practical environmental action in many ways.

While at CAT, inspired by a guest lecture by Caroline Hickman on climate anxiety, Rhiannon undertook climate café training by the Climate Psychology Alliance. This led to her and fellow CAT students creating a collective called Casglu Climate Cafés. The aim was to facilitate climate cafés at CAT to help the student body nurture emotional resilience in the face of climate change.

After graduating, Rhiannon coestablished the Climate Action Torfaen community climate action group, which is helping to empower individuals and communities to respond to the climate and nature emergency. The group has built relationships with the local council

to encourage the co-development of environmental policy and practice between residents and the council. Its food resilience project, Root For Our Future, is exploring food security and promoting sustainable food practices within the local community.

Rhiannon says: "Studying at CAT empowered me to put myself out there and say yes to opportunities I otherwise would have felt unequipped for. My love of learning has only deepened, alongside my appreciation for the complexity of both the challenges and opportunities we all face today. Studying at CAT, as cheesy as it may sound, has been a transformational experience for me. It's a truly special place and I encourage anyone to consider CAT if they are thinking about postgraduate study."

If you would like to share your CAT story, email members@cat.org.uk to tell us how CAT has influenced your work, volunteering or daily life, and what the community means to you.





Make an enquiry by visiting cat.org.uk/contactus

Make a gift that lasts for generations

alking CAT's winding woodland paths and through the gardens with spring in full bloom, there are numerous reminders of the people who have supported CAT over the years. Plaques on benches, names on rooms, and polished slate markers serve as testaments to the long-lasting network of individuals who have contributed to and continue to support our work.

For over 50 years, CAT has been providing positive practical solutions to the environmental challenges we face. None of this work would be possible without the generosity of our supporters. Whether you are a member, learner on one of our courses, have donated to an appeal, or are planning to leave a gift in your Will, you are a vital part of the CAT community.

All of us care deeply about the future of upcoming generations and the ecological systems they will rely on. Leaving a gift to CAT in your Will is one way to continue supporting people and the rest of the natural world for many years to come.

Why does a gift in your Will make such a difference?

Gifts in Wills, of all sizes, give us the stability to plan ahead by providing a solid bedrock of support to build upon. They offer shelter during stormy weather, whatever economic or other challenges lie ahead.

With scientific predictions becoming ever-more alarming and political action continuing to be inadequate, CAT is providing hope, grounded in evidence-based research and practical solutions.

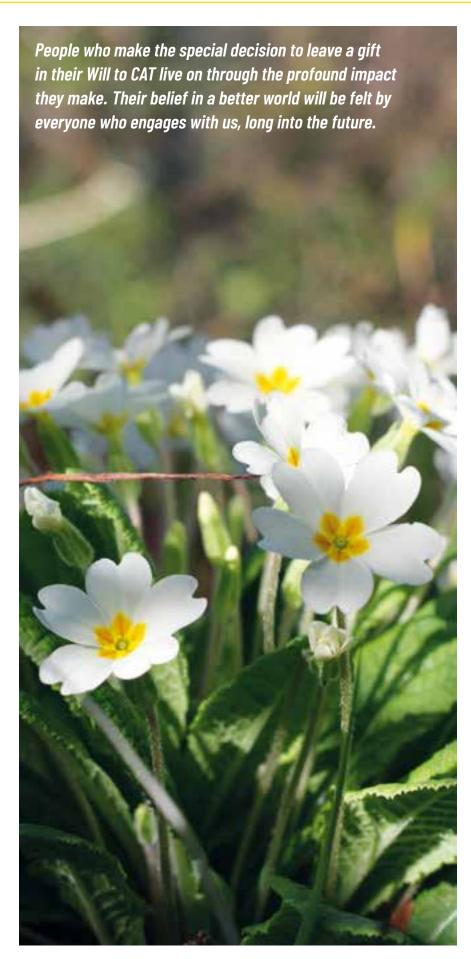
Gifts in Wills allow our teams to get on with their urgent work – sharing the knowledge, skills and tools people need to take action in the climate and nature crisis. This can be through our worldclass education programme, public engagement events, or short courses and free resources.

A special legacy

By including a gift in your Will, whether it's a small percentage of your estate (a residuary gift) or a fixed sum (a pecuniary gift), you can ensure your values live on and our work continues for generations to come.

Arranging an in-memoriam dedication is another way to honour a loved one while contributing to our work. The names displayed across our site are a beautiful tribute to those who have been part of our journey and represent a lasting gift to future generations.

If you are considering leaving a gift in your Will or making an in-memoriam dedication, please contact Freya by emailing legacies@cat.org.uk or calling 01654 523015. We will be happy to answer any questions you have. Thank you for considering this impactful way of giving.



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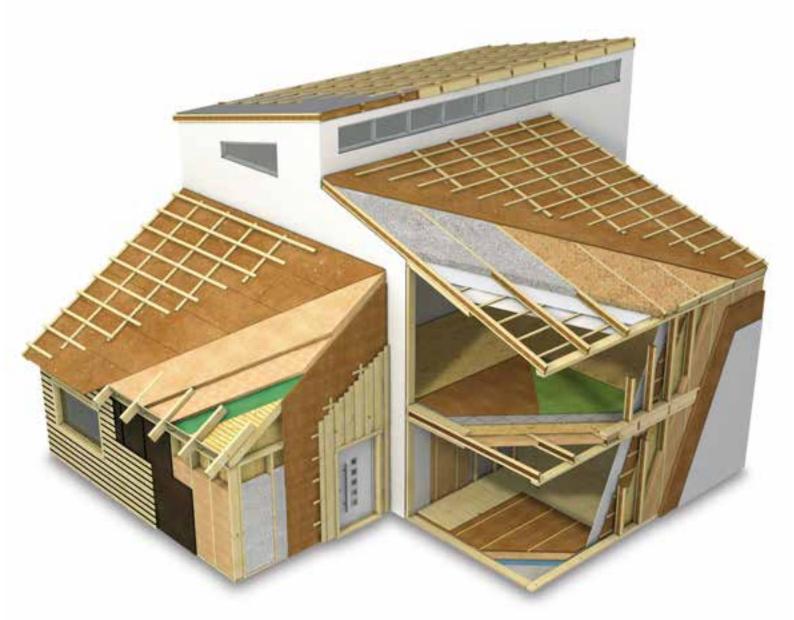
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