



A Converted Flat in 2049: The Innovo Room of the Future, has been created by designers from the Interaction Research Studio at Northumbria University.

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Room of the future gets a festive transformation for 'Renew Year's Eve'

An evolving room of the future created by designers from Northumbria University's Interaction Research Studio has been transformed with a winter scenario to help visitors imagine what New Year's Eve celebrations might look like in 25 years' time.

The [Converted Flat in 2049](#) is one of seven period rooms built to reflect stories in time – past, present and future – as part of the [Real Rooms](#) project

which opened in July at the [Museum of the Home](#) in London.

Supported by [Innovo](#) and set in Hackney, where the Museum is based, the flat features futuristic devices and furniture developed and created by designers and technologists from [the Interaction Research Studio \(IRS\)](#) team, who carry out their research at the University's [London Campus](#).

From Mycelium insulation made from fungus to multigenerational living, the team have imagined how evolving tastes, societal changes and the climate crisis might dictate our future homes, and have even developed scenarios for fictional characters who might inhabit the space.



Mycelium insulation is used in the converted flat set in 2049.

The view from the flat's window has also been imagined by the team and created for the exhibition. It reveals a transformed London in 2049, adapting to climate change and technological innovation. Visitors can expect to see a view which shows energy kites harvesting electricity from the winds above the city, while emissions patrol drones scan rooftops for illegal smoke. Green-clad buildings with living walls dominate the skyline, and protective 'jackets'

shield historic structures from relentless storms and heatwaves.

Associate Professor [Andy Boucher](#), from the Interaction Research Studio, said: “Being asked to produce a room of the future has been an extraordinary experience for our team. We’re used to designing for real-world situations in the present, so imagining what life might be like in 25 years required a real shift in approach. We knew from previous visions of the future that they are almost always wrong, but one thing we could confidently predict was the impact of climate change – so that became our starting point. From there, we developed a set of fictional characters to inhabit this multi-generational home and built stories around their lives, exploring what it might mean to live in a London adapting to climate change.

“We’ve spent so much time with these characters – imagining their hopes, dreams, and struggles – that they’ve started to feel real to us. For example, Ali, the youngest of the household, represents a new generation determined to fix the planet through lifestyle choices, like refusing to eat farmed food. And then there’s Jo, an 81-year-old ex-raver, who relives memories of their youth using a VR-like device that induces a trance-like state – while also occasionally arguing with Ali about her right to enjoy a good steak whenever she pleases. These personal dynamics bring the speculative designs and technologies to life, making them relatable and tangible.”



The Farm-Free Protein Machine in the kitchen of the converted flat set in 2049.

[Dean Brown](#), Senior Research Fellow from the Interaction Research Studio, said: “One of the challenges we faced when designing the room was how to depict plausible vision of a future that we knew to be inherently unpredictable and transitory. As a design team we felt these qualities and contradictions could be reflected in the look and feel of the room itself.

“The approach we settled upon was to present a room that had a clear sense of foreground and background – where significant feature elements are vividly foregrounded against a background of more simplified monotone grey set-works, walls and furniture items. This is intended to suggest that details will be filled in as the future evolves, conveying a sense of unfinished business with the future that is also explicitly readable to a museum visitor.”

Some of the concepts created by the Northumbria team that visitors can expect to see as part of the [Innovo Room of the Future](#) are:

Farm-Free Protein Machine

This kitchen appliance functions as a mini-laboratory, producing protein mince from a proprietary blend of algae and fungi. Compact and efficient, it allows users to fill the hopper with lab-produced pellets, then customise the flavour and consistency. Designed to make sustainable food production accessible, it supports farm-free diets while being affordable and easy to use.

Better Life Digital Picture Frame

By 2049, this AI-enhanced digital photo frame is considered a retro device. A dial on the front lets users adjust any uploaded photo to appear “better” or “even better”. The AI decides what to enhance – an image from a tube journey might transform into a private jet flight, or a casual street selfie could become a glamorous red-carpet moment. While the images aren’t real, they spark creativity, playful conversations, and the joy of imagining what could have been.

HighPoint Memory Intensification System

HighPoint is a Virtual Reality-like device that uses pulsing lights to manipulate neural rhythms, vibrating paddles to induce a dream-like state, and AI-enhanced video to create an endless audiovisual journey. Designed to help users relive cherished memories in vivid detail, it offers immersive and dream-like experiences.

Modular Storage Sofa

In the highly competitive housing market of 2049 London, renters frequently move to find affordable accommodation. The storage sofa is designed for this transient lifestyle, easily disassembling into lightweight parts for hassle-free transport. Its hidden compartments provide a perfect solution for storing belongings that rarely get unpacked but can't be left behind.

Among the festive updates the Innovo Room of the Future has been given for the holiday period is the idea that the household of fictional characters will celebrate “Renew Year’s Eve” – part of a holiday called the Renewal Festival which the fictional story imagines has been introduced as an inclusive way to treasure the year’s rebirth.



The Modular Storage Sofa, designed for a more transient lifestyle.

Speaking about the collaboration, Andy added: “Working with the Museum of

the Home has been incredible. It's rare to find a partner so open to experimentation and to creating spaces that challenge how we think about the way we live and where we're heading. The Museum's commitment to exploring the speculative future alongside the past and present has given us the freedom to imagine bold and provocative ideas about the home in 2049. What's even more exciting is that we'll be able to continue evolving the space over the next decade, introducing new research and storytelling to keep the design fresh, engaging, and thought-provoking."

Led by Professor [Bill Gaver](#) and Associate Professor Andy Boucher, the Interaction Research Studio (IRS) was established almost 20 years ago and explores the design of computational systems for everyday life, creating prototype products that encourage playfulness, exploration and insight.

Researchers use their interdisciplinary knowledge to engage with settings and design highly-finished computational products. Their intent is to suggest possibilities for technology that are not explored commercially, and they ground their designs by encouraging participants to live with the new designs and report back on how their experiences evolve. The team put the user at the heart of determining how best to use a new product or technology.

Well-established in Human Computer Interaction and Design communities, the IRS has won over £7m in funding since 2005, publishes regularly in the distinguished *Association for Computing Machinery*(ACM) journals and has frequently exhibited at international venues including the V&A, Tate Britain and New York Museum of Modern Art.



A Winter Festival family meal in the Innovo Room of the Future.

As well as the Innovo Room of the Future, the Rooms Through Time exhibition documents four centuries of the evolution of home life, beginning in 1630. All rooms have been curated through a mix of archival research and oral history interviews, to explore and celebrate what home has meant to different people over the decades, as well as what it may mean in the decades to come.

Museum of the Home Director, Sonia Solicari, said: “The history of the future is a rich research topic. It’s fascinating to look back at how previous generations imagined the future. In fact the Victorians actually predicted the future and foresaw the invention of video calls! The Interaction Research Studio’s 2024 version of 2049 living will always be an interesting slice of history and this might end up as one of the fastest-changing rooms in the museum. We’re excited to see it evolve over time.”

The Real Rooms project is made possible by the National Lottery Heritage Fund; by the industry leading construction and development firm Innovo; and the Department for Culture, Media and Sport/Wolfson Museums and Galleries Improvement Fund.

Until Sunday 12 January, all Rooms Through Time have been redressed for the [Museum of the Home's annual Winter Festival exhibition](#), revealing new stories of festive celebrations and traditions from the past 400 years – as well as what traditions might look like in the future.

Discover more [here](#) about the Interaction Research Studio and the Room of the Future project, and follow the team on Instagram [@irs_northumbria](#).

ENDS

Notes to editors

Photography by the Interaction Research Studio team showing features within the Innovo Room of the Future.

About Northumbria University

Northumbria is a research-intensive university that unlocks potential for all, changing lives regionally, nationally and internationally. Named Modern University of the Year 2025 by *The Times* and *The Sunday Times*, Northumbria is based in Newcastle upon Tyne, with an additional campus in London.

Two thirds of Northumbria's undergraduate students come from the North East region and go into employment in the region when they graduate, demonstrating Northumbria's significant contribution to social mobility and levelling up in the North East of England.

Find out more about us at www.northumbria.ac.uk

About Museum of the Home

Museum of the Home's purpose is to reveal and rethink the ways we live, in order to live better together. Through our collections, exhibitions, events, performances and debates, we reveal diverse, thought-provoking and personal stories of the home from the last 400 years to the present and looking into the homes of the future. Explore stories of home and share your own.

About Innovo

Innovo Group is a leader in urban development, specialising in the design, engineering and construction of city projects across four continents.

UNIVERSITY OF THE YEAR 2022 (Times Higher Education Awards)

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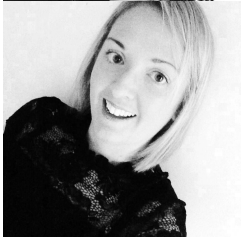


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