

# Cambridge-based #21toWatch announce 2023 winners

What do: AI, IVF, DNA, Bluetooth, Wireless internet, inkjet printing, gene sequencers, the asthma inhaler, the flushing toilet, and Concorde's droop nose all have in common? They were all either invented, developed, or discovered in Cambridge.

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The 2023 edition of the #21toWatch winners – the next generation of entrepreneurs offering game-changing solutions for the challenges of today – have announced their winners for this year, building on their host city's long history of invention.

This year's cohort of #21toWatch winners provide solutions which highlight and address the main concerns of today: Alzheimer's, inclusion, food security, energy-saving, recycling, sustainability, decarbonisation and other Net Zero challenges.

Despite its small size, Cambridge receives four times the amount of tech investment per head than in London. And, as the UK's most inventive city, has more patents published per resident than any other in the UK. The list comes soon after news of the Government creating a brand new, dedicated department for Science, Innovation and Technology.

Divided into People, Companies and 'Things' – each having 7 winners to total 21 – the Top21.2023 have all been assessed according to five strict criteria:

Innovation, Challenge, Influence, Viability and Memorability, researched via third party platforms, and selected by an independent panel of judges. The winners, announced at the awards ceremony held at the Storey's Field Centre in Cambridge, are detailed below.

## The seven individuals for 2023 are:

1. Ama Frimpong – already named the Institution of Engineering and Technology's (IET) 'Young Woman Engineer of the Year' in January, Ama is Head of Product Development at 52 North Health Ltd. She is currently overseeing the engineering team in the development of NeutroCheck – a portable, low-cost, device which enables chemotherapy patients to be tested at home for suspected neutropenic sepsis, a potentially life-threatening complication of anticancer treatment.
2. Broderick House – CEO and Founder of Ethēcos, a venture revolutionising the experience of personalised nutrition. Broderick is also a Harding Distinguished Postgraduate Scholar at the University of Cambridge, where he is tackling global food insecurity through his cutting-edge research.
3. Coco Newton – Neuroscientist and Co-Founder of Fathom Cognition. Her goal is to create new cognitive markers which can help detect Alzheimer's disease earlier, years before dementia onset.
4. Elena Cismigiu – Neuroscientist and CEO of Neuro XR, a company focused on bringing the power of the human mind to Virtual Reality. Listed in The Telegraph newspaper's "Top 100 female entrepreneurs to watch", Elena is passionate about inclusion in tech and, as a *disabled* woman herself, providing equal opportunities to *disabled* talent and women wanting to pursue careers within the sector.
5. Dr Hannah Sore – Founder and CEO of PharmEnable, a company combining AI and medicinal chemistry expertise to develop the next generation of complex 3D small molecule drugs.
6. Lucy Jung – the youngest ever winner of *Cambridge Judge Business School's* Woman Entrepreneur accolade, Lucy is the CEO and founder of Charco, an experienced Founder with a demonstrated history of working in the health, wellness and fitness industry.
7. Dr Zoe Tolkien – Zoe is Head of Research at Advanced Furnace Technology, an engineering and materials science company working on net zero challenges through the ramp-up of silicon carbide semiconductors and electric transport.

## The seven companies for 2023 are:

8. Broken String Biosciences – a genomics tools company leveraging a state-of-the-art platform for assessing off-target gene editing events in the

- genome. In partnership with leaders in the field, their mission is to bring gene editing therapies safely to all who need it.
9. Cambridge Smart Plastics – is relaunching plastics for a smart and sustainable future. Their natural biopolymers have created a new class of sustainable barrier plastics to initially replace metal and chlorinated plastic in multi-layer packaging and ultimately fully replace plastics for guilt-free packaging.
  10. Helio Display Materials – a joint spin-out venture from the universities of Cambridge and Oxford, which is commercialising technology for brighter and more colourful displays that use significantly less energy.
  11. HutanBio – aims to decarbonise long-distance transport by making carbon-negative biofuel for shipping and transportation. HutanBio is utilising desert regions to increase global capacity for photosynthesis and achieve atmospheric carbon draw-down.
  12. Qkine – a UK manufacturer driving innovation in growth factor proteins, essential reagents used in transformative technologies such as stem-cell disease models, organoids, cell therapy, bioinks and cultivated meat.
  13. Roadfill Ltd – uses recycled waste plastics destined for landfill or incineration to repair and re-lay roads in an environmentally friendly way.
  14. Spirea – created to advance a new generation of antibody-targeted cancer treatments with significantly better efficacy and safety profiles. Spirea will use its innovative technology to enable a pipeline of superior and differentiated antibody drug conjugates for the treatment of a range of solid tumours.

## The seven Innovations (Things) for 2023 are:

15. Cambridge Sensoriis – easy-to-install, all-weather, technology which is helping to unleash the drone revolution by maximising automation and safety, and minimising costs.
16. InferSens – game-changing ‘deep tech’ technology which is enabling ‘deep learning’ on device in the field on low-cost battery power for the very first time. InferSens’ first product, a clip-on, ultra-low power flow and temperature sensor, automates Legionella risk monitoring in building water systems. The sensors support efficient, wide-scale deployment, reducing costs and environmental impact.
17. Kerb-e – revolutionary on-street EV charger which is enabling the >30% of UK households that do not have off-street parking to benefit from affordable, convenient and reliable charging.
18. PAUA – an EV charge card and app which is making EV charging easier for business. One EV charge card, one app, and one fleet management dashboard is combined with access to 25,000+ charge points in the UK.

19. PolyNaut Technology (SomaServe) – polymer nanoparticle platform for next-gen genetic medicines. The PolyNaut polymer nanoparticle platform enables intracellular, targeted delivery of new genetic therapeutics, including siRNA and mRNA, to the brain and other hard to reach tissues and cell types.
20. Warmscore (Purrmatrix) – sensors and software to decarbonize housing without sacrificing comfort. For insulation and heating upgrades in housing, Warmscore uses environmental data and powerful software to measure housing and heating performance, so that we can decarbonize housing without sacrificing comfort.
21. Vuala X1 – automatic food waste separation technology from Vuala, which makes food waste recycling easy with added benefits. The Vuala X1 automatically separates food waste from other wastes, turning them into raw material for energy production in situ and all in a matter of hours.