-		Brainwave submissions 2021	
Entry 1	Brainwave title The case for a new form of gilt	Problem The pension changes in recent budgets provide a great deal of flexibility for DC participants reaching retirement. The changes remove the requirement to purchase annuities. That said, the ability to secure a predictable source of retirement income still remains important, either on its own or as part of an overall retirement solution. The possibility exists for the government to create a security that could facilitate this in a very straightforward way and at no cost to the Treasury.	Solution The security would have the following characteristics: • 25 years of payments, increasing either by inflation, or by a fixed percentage, or by nominal GDP • No final return of principal The cash flows look like a fixed term annuity directly matching the cash needs of a retiree, and would have a duration of around 18 years. Because the issuer is the government, there is no need for capital backing or a profit margin making the IRR (Internal Rate of Return) to the investor much more attractive than conventional annuities. In the event of early death any surviving spouse or their estate would continue to benefit from the full remaining value.
2	Silver Bonds	How do you provide elderly care for people who cannot afford it? Investors (pension funds) need to generate returns, which means that any commercial elderly care product will be constructed for and sold to people who have money. Any solution that addresses the needs of poorer people must be strictly not-for-profit.	Create Silver Bonds, a replica of Premium Bonds, with the profits (or "net financing" in government-speak) being ring-fenced to provide free or subsidised services for elderly people who cannot afford to finance their own care. While those who 'save' using Silver Bonds should be free to withdraw and use their money whenever they like and as they see fit (like Premium Bonds), there should be a strong educational remit directing savers to view their Silver Bonds as part of their own retirement solution. Silver Bonds could be set up as a division of a newly created UK Sovereign Pension Fund (attached as a separate brainwave), which would provide the initial funding for the Silver Bonds prize draw pool.
3	UK Sovereign Pension Fund	The UK government has close to GBP 2 trillion in unfunded pensions liabilities. This is the single largest liability on the government's Whole of Government Accounts balance sheet. The liability and the associated annual pension payments approaching GBP 150 billion are an unsustainable drain on public finances.	Create a UK Sovereign Pension Fund. Interest rates are at a historic low. The UK government can create a UK Sovereign Pension Fund by borrowing part or all of this liability. It would still appear as a liability on the Whole of Government Accounts balance sheet but it would be a funded liability. Primarily, the UK Sovereign Pension Fund would be used to invest in a wide range of real assets (for example the infrastructure requirements to transition to a clean-tech, low carbon economy), but a proportion of the fund's investment strategy should be ring-fenced and directed to systematically improving elderly care services. Over time, the fund's income stream would increasingly offset the government's pension payments of circa £150 billion annually. Setting up a UK Sovereign Pension Fund would create a virtuous circle of using public pension funding to boost the UK economy (growth, jobs, taxes) while simultaneously funding the public facilities (care homes), health sector jobs (care workers) and retirement incomes of pensioners.
4	Loneliness - harnessing the younger generation	A key problem for the aged is loneliness, whether through living alone or in long term stays in care homes and hospitals. The nuclear families in the UK means that there is a real separation between generations as there can be little interactions between the aged and younger generations who are not their direct descendents.	Youth groups such as scouts and guides invariably try and raise funds through inane and pointless tasks such as standing by supermarket counters offering to pack bags despite most shoppers preferring to do it themselves. What is required is a mechanism for such groups to raise sponsorship through agreeing to spend time meeting and talking to the aged in care homes and hospitals. Clearly, there needs to be mechanisms for this to be supervised etc. But there should be a way for such groups to be sponsored to perhaps spend half a day at a specified carehome etc. For example, rather than having the whole scout leavel a morning in a supermarket, the scout leader could have a stall by the entrance stating clearly that the troup would spend half a day in a care home talking to and entertaining the residents and would like to be sponsored to do so.
5	Track and trace to end loneliness	My daughter works with the elderly as a Social Prescriber, and she tells me that one of the biggest problems is loneliness. Watching two people from my window get together during lockdown for a walk and a chat has made me wonder whether there is a great deal to be said for this rather simple pleasure.	shops or a park. We now have the technology in the form of track and trace so
6	Curo [WINNER]	Children who move away from parents and grandparents worry about their care as time moves on and their relatives get older. I think this is a common concern, and wondered whether there might be a way for people in Penzance to provide care, contact and company for their older relatives in Perth. As with many things, technology could help here - enter my idea, Curo.	Curo would be a website & social app which matches 'children' with someone else's elderly relatives in their area. In this way, personal care and contact can be provided to a local elderly relative, and the care provider knows that someone is doing the same for their relative(s) in another part of the country. The site/app could have its own 'currency', which is earned by time spent caring for someone, and spent by paying for someone else to care for your own relatives. App users could also help with video calls between those being cared for and their children, for those older users who are not necessarily tech- savy. The user profiles on the app could be created to link to medication, doctors surgeries, external benefits and such like, to help the children keep track of their parents' lives.
7	Creating a Home that Cares for You as You Age	In 2008 only 17% of people in the UK owned a smart phone, but today over 95% of UK households own a mobile phone. In ten years, smart internet connected homes will be the norm. There is huge potential for the smart home to support healthy ageing and our wellbeing, including voice assistants which alleviate loneliness and provide a means of external communication and monitoring. Technology solutions for assisted living have limited integration and can be expensive. They meet an immediate need but are not thinking about the very near future when off-the-shelf consumer smart home technology is more prevalent.	identified. Smart homes can empower people to age well. By creating homes that can care for us as we age, this moves the focus to wellness rather than illness and being proactive rather than reactive. We don't need new technology; we need to get smarter about how existing technologies are implemented. This starts with internet connectivity, but also spans greater support in financing, educating and supporting people to adopt smart home technologies. The ideal solution is software based, with a cloud platform that can integrate, analyse, interpret and feedback the data from the smart home sensors. The digital divide is real and is widening as technology advances. The difference in experience between those without reliable internet during the Covid-19 pandemic has shone a light on how fundamental access to the internet is to support our daily lives. Healthy ageing is not just about supporting people in later life but supporting people to adopt. There is a strong link between earlier lifestyle choices and health in older age. A smart home should be able to adapt and care for us as we age and move through different life phases.
8	The Upternship Program	Post Covid, older workers 50PLUS are facing redundancy, long term employment and a competitive "candidate led" job market which can be ageist against them. Finding a full time permanent job is therefore very tough but how can they prove themselves and showcase their expertise and transferrable skills when the government led initiatives such as the Kick Start programme and Internships/Apprenticeships are aimed at the 18-25 age group? In summary, older workers are being frozen out of the job market.	The Upternship Program (UP) is an "internship for older workers". The UP gives older workers a chance to showcase their experience and transferable skills within a 10 week period, designed to bypass the standard hiring process and highlight the fast track impact they could make. Alongside this a 'roadmap to hire' is agreed upon with the aim of the Uptern proving themselves and securing a full time job when the program ends. More info in the deck attached.

		Brainwave submissions 2021	
9 9	Brainwave title ELDERS - Active wellbeing for all	Problem Loneliness, poor health and low levels of social integration	Solution Franchise of social clubs for the older generation. Providing a 'home from home' for lonely adults and allowing them to feel useful and active, rather than a burden on society
			ELDERS is a new concept for building elderly wellbeing and resilience. ELDERS is a franchise-able business model, supported by government funding which comes through a levy on 30-60 year old tax payers. ELDERS will reduce the need for hospitalisation and pressure on GPs offices across the country ELDERS provides a 'home from home' for lonely adults and allows them to feel useful and active, rather than a burden on society.
10	Memory Pods	We are exploring interest in recording a series of podcasts for seniors as a way to preserve their "stories" and to create a memory capsule to cherish for their friends and families and perhaps the wider community. The current societal upheaval is forcing all of us to be resilient, and to perhaps need the advice and guidance of our elders more than ever. The isolation that has flowed from social distancing has heightened the need to connect with seniors and provide a low friction way to hear their stories and capture memories.	We are exploring interest in recording a series of podcasts for seniors ("Memory Pods") as a way to preserve their "stories" and to create a memory capsule to cherish for their friends and families and perhaps the wider community. Podcast production costs are modest. We are experienced hosts and have a tested interview structure. Remotely recorded podcasts are particularly well suited to capturing memories of seniors who may be cocconing or more isolated from friends and family today due to Covid-19 restrictions. They are • Easy to record – remotely over zoom • A guided conversation with an experienced host, who can draw out personal anecdotes and wisdom that the guest wishes to preserve • Edited for easy and smooth listening – 25-30 mins in length We are looking for organisations wanting to provide sponsorship cover production costs as part of their mission to improve the quality of life and dignity of seniors in these challenging times.
11	Prevention is better	Older people often get care and support too late when they reach a crisis. Life-changing decisions then have to be made very quickly, without proper planning and at great cost - for example moving into residential or hospital care. If a little bit of help was available and easily accessible, older people could maintain their quality of life while saving themselves and taxpayers substantial sums. Timing and accessibility are crucial. But most older people and their families don't know where to turn, inertia sets in, nothing is done and the ultimate cost is much higher for individuals and society.	Despite the problem outlined above, there is no shortage of advice and information for older people. But you need to know which of the many sources are the best places to go, how to access them and ideally when necessary be able to speak with an adviser. One app could join up the best sources of advice and information on care, health, housing, finance, practical help and social support, and point older people and their families to the most appropriate source. That help could be for improving your home and garden, preventing falls, reducing loneliness, finding lodgers, getting out and about, meaningful social activities keeping active and healthy, having a pet, walking or dancing, downsizing or making better use of their finances. The main challenge will be devising an eye-catching and trustworthy name/offer and marketing it in fresh ways that will reach the target audiences and encourage them to act now rather than leaving it until it's too late. Spending relatively small sums on a gateway to prevention would save much bigger costs of tackling crises in later life.
12	A development in Assistive Technology that would prevent the occurrence of falls	How to prevent the risk of further injury from falls by older people. As it is more prevalent in people over the age of 65. Falls cost the NHS £8 billion a year placing strain on health and social care services.	I'm proposing an idea of a motion sensor shoe. This type of shoe has motion sensors on the ball of the foot and the heel. They would be able to detect subtle changes in muscle movement, pre empting the fall. This would alert the person to take a rest. And this is intended for indoor usage.
	Solving the housing crisis one room at a time. [SHORTLISTED]	We're in the midst of a housing crisis, with affordable accommodation almost impossible to find, especially for those living in urban areas. Generation rent is a term commonly applied to young people who have been priced out of the housing market but older people struggle too, often because of falling into debit, divorce or the death of a partner. Meanwhile research suggests there are over 6m spare rooms available in the homes of adults over 50, many of whom could have cash flow problems. Older women are more likely to experiece later life poverty due to having an insufficient pension.	That's where nestful comes in, providing a clean, safe and secure accommodation through co living with adults, typically homeowners, with a space to spare. We match homeowners and home-mates based on lifestyle preferences and values to create harmonious households. By making it easy for older people to find compatible home-mates we want to enable more older people to age in place and more people to be able to access safe, secure and affordable accommodation.
14	Use of companion robotics for virtual care delivery	Our Social Care systems are under pressure like never before. Even before the pandemic, demand for care was outstripping the available funding, and we already had a general shortage of care workers. Covid-19 has exacerbated this, with the effect being the increased isolation of older adults - affecting not just the delivery of care but simple human contact and companionship. We will never replace human carers, but innovation that puts tools and technology into the hands of our caregivers is long overdue - freeing up carers to do what they want to do, and what they do best - to care.	GenieConnect® is a companion robot solution designed to reduce isolation and enable older adults to live independently for longer. It uses innovative software and systems to increase connectivity and to allow the delivery of remote care, with a roadmap that truly extends into the future with a suite of Al and Machine Learning-driven features enabling preventive health management. Around 20 robots have been deployed in a pilot that is designed to not only prove the efficacy of the solution for older adults, but to prove the business model of the delivery of remote care as part of a human-focused care package. One of the foremost problems we see with older adults living independently, are health problems that are caused by incorrect medication regimes. Every week older adults are admitted to hospital because of poor medication compliance, and in many Local Authority areas, 15-minute physical care revisits are commissioned purely for the purpose. These visits are commercially unattractive for the care providers and deeply dissatisfying for both the care-giver and care-receiver. Our premise is that offering a regular medication compliance ad welfare check visit via the Genie robot along side in-person visits delivers better overall outcomes for the patient and care provider.
15	l'II cook for you! (WINNER)	My mum loved cooking, but couldn't see the point of cooking her favourite dishes for just herself after dad died.	An app that brings together like-minded groups of 4 OAPs who each pay £5 (?) per week into a food kitty. Each week one of the 4 take it in turns to cook and host a lunch for their group. After 4 weeks you move into another group. You get to cook / be cooked for / meet new people - maybe once a week, all year 'round. Yum Yum!
16	Help me guru! (SHORTLIBTED)	My mum needed more help to solve simple problems more often as she aged. One-button 'HELP' icons on her ipad / smartphone can help solve many of these problems.	You have a tech problem - with your tv / video (!) / ipad / etc. A SINGLE BUTTON on your ipad / smartphone links you to a local (also elderly) tech guru - i.e. one click support via a Facetime interaction, or a neighbourly drop- by. You can apply the same logic to 'gardening guru' / 'cooking guru' / 'DIY guru', etc. Helping others and helping yourself is empowering! But remember - it's a ONE BUTTON interaction!

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Entry	Brainwave title	Problem	Solution
17	Are you OK?	If my mum had been able to stay in her home safely she'd have had a far better quality of life but she kept on falling over.	An in room movement monitor system. Mum lives alone in a house, kids are living far away she falls over and waits for hours to be found - regularly. She refuses to wear a clumsy alarm necklace, etc. So you have movement sensors in each room and on the stairs. If they detect no movement for say 4 hrs during the daytime then the app texts 'me'. I can then use the app to interact with a speaker in the sensor box to 'broadcast' a message - 'are you ok mum'. Mum can answer - ie 'go away I'm finel' - or perhaps she can't In extremis I can then use a low res camera in the sensor box to survey the scene and decide whether to call a neighbour / ambulance for help. This system sounds intrusive, but mum would have gotten used to the idea as long as the sensor boxes are v small and if's use is really respected by everybody. Yes, it's 'spying' - but only at a crisis moment - at all other times the boxes just sit there and do nothing - so actually it delivers peace of mind.
18	CRAFTernoon Tea (SHORTLISTED)	During COVID 19 social isolation and loneliness amongst over 55's has significantly increased due to shielding and mass closure of social care settings. Loneliness is even more perlinent amongst individuals with a Dementia diagnosis who often lose the ability to seek out social contact. Age UK research outlines that loneliness is associated with poorer physical and mental health and lower wellbeing amongst older people.	Whilst providing our hot meal delivery service the idea for 'CRAFTernoon Tea' was born! A seemingly simple and effective solution to the huge and growing problem of loneliness. In partnership with our customers we developed 1:1 in home sessions blending crafts & games with afternoon tea. Using PPE we were able to minimise any COVID transmission risks and found that we quickly became the only people our customers would have interaction with for days or weeks at a time. Keen to be as inclusive as possible we also undertook specialist training to provide meangiful experiences to individuals with dementia. We have received wonderful feedback from our sessions which many have advised have helped them to form a structure and routine, lifted their mood and crucially helped to prevent further deterioration. As COVID restrictions ease we hope to be able to expand our service to be facilitated in group sessions to encourage the community to come together.
19	Providing better quality care accommodation. With an increasing ageing UK population, why are a large majority still poorly provided for and living in poor quality care accommodation in later life.	We are not facing up to the challenge of properly looking after a large proportion of our ageing population in quality care accommodation. Many, and the number is growing, are living in poverty or have significant physical and/or mental health issues. They need proper care in quality accommodation. Families are too busy and there is not the culture within the UK of looking after our loved ones in later life. There is inadequate funding, Ministers adopt short-term thinking and the conundrum of developers/investors/government/health authorities working together on viable and effective care accommodation plans is not happening.	We need to address the challenges head-on and be bold in our vision with the state and private sector working together to resolve the challenge. Government have powers to enable successful outcomes. They can compulsory purchase sites and offer them at zero cost to enable viability to ensure investors achieve appropriate long term secure indexed returns from the care home operators, guaranteed by the public sector. As in Japan and Scandinavia, specific tax revenues can be raised to help finance care so that it does not exclusively fall on families/local authorities. A judicious mix of all three funding sources needs to be comprehensively considered as opposed to the current piecemeal approach. Care homes should be sufficiently financed such that quality of accommodation is conducive to providing quality care. And the pay levels should be increased to a tatract quality staff who view provision of care as a vocation as opposed to a job. The accommodation needs to be provided within communities, to allow residents to retain community representation and for families and other outsiders to visit eg school children music recitals, subject talks, Probus visits, drama events, quiz evenings etc. Creativity in approach should be encouraged as this is proven to improve quality of care.
20	Local connections app	Older people often experience loneliness and are perhaps not aware of others in the surrounding area that are in a similar position.	An app that can be used to allow those who have registered to sign up and make connections with people in their local area. This could also be linked to other services which could provide discount codes for local shops such as coffee shops/lunch spots to encourage people to meet one another, include social events, volunteering events. A platform which is minimal and easy to understand.
21	Creating Vibrant, Realistic Age-Specific Role Models (WINNER)	Older people are usually seen as a problem both for themselves and for their family and the state. Many older people believe that they cannot change their lives for the better. They believe that their health can only get worse and that they will become less confident, more dependent and lonelier as they age. Existing role models largely reinforce this or are so impossibly glamourous that they are seen as being unattainable.	A membership site www.upliness.net (launching in March), which offers expert advice and real life role models via recorded interviews. The expert interviews include doctors, psychologists, personal trainers, coaches and others, but probably the most important interviews are with "ordinary people". I have interviews with lots of different people: a woman who cares for a quadriplegic husband and started exercising aged 68; a man whose wife of 42 years killed herself, but has a joy and passion for life that is infectious; a woman who is aged 68 and is starting a new business; a couple in their seventies, taking LGBT and dementia performances into care homes; a woman who retired to a town where she knew none – she started a Nordic walking group and now has lots of friends; a woman originally from India who knew she was susceptible to type 2 diabetes, who reversed the diagnosis through diet; a 56 year old man who is in the best shape of his life. There is also a community group within the site where people can share information and encourage each other.
22	Communities-in-Tune: Where words fail, music (SHORTUSTED)	Loneliness and social isolation represent some of the biggest challenges we face, affecting wellbeing, quality of life, premature death, and contributing to diseases such as dementia, heart disease and depression. It also impacts significantly on social costs, health costs, and drives increased inequality. Covid-19 has made the issue much worse. Older people are particularly vulnerable to social isolation or loneliness owing to loss of friends and family, mobility and income. Increasing family dispersal and the rising elderly population mean that loneliness will be an increasing societal challenge over the coming decades. Loneliness kills, it's time to break the cycle.	Our 'brainwave' to tackle the problem of social isolation is 'Communities-In- Tune', a National initiative, rooted in local connections, catalysed through the songs we know and love, and developed on an existing smart music platform. It is a community ecosystem built around the power of shared music. Music is a recognised catalyst that cultivates engagement, inclusion, and communication. We can stream curated music into people's homes, with songs our platform selects to work in harmony with their age, background, and cultural origins. The 'magic' ingredient is the addition of short messages into the music feed; direct messages from their GP, or their family, or more general messages from their community and social services. These messages play between songs, much as adverts do in current radio programming. This personalisation is achieved using 'location' and 'subject' based messaging, combined with personal messages to individual IP addresses, all within a secure managed platform. The service can be funded by charging for each message delivered. Communities-in-Tune is essentially a scalable music driven ecosystem that has the potential to build cohesion, cross-community engagement, meaning and purpose in life, and foster better emotional resilience amongst the older and more isolated population.

Entry	Brainwave title	Brainwave submissions 2021 Problem	Solution
23	Peer to Peer Health Support (with NESS)	Ageing population, living longer with an increasing number of people living with long term health problems and co-morbidities resulting in the poor quality of later life years. The NHS has to devote significant resources to people with long term conditions and multiple co- morbidities related to lifestyle choices. Many of these conditions are not a direct result of ageing but of lifestyle choices and poor health literacy. There are also many older adults (3.6 million) age 50+ who are fit and active who are struggling to find work due to age discrimination or caring responsibilities and would value support to find a more productive role.	Create a programme to train older adults as Community Health Coaches to deliver Health Literacy Education and personalised health coaching peer to peer support in the community. With the aim of: 1. increasing understanding of the relationship between the social determinates of health and lifestyle and health as we age 2. Increasing the number of older adults with multiple morbidities who are self- managing their condition. (already an NHS target) 3. Increasing the Health liferacy of older adults generally 4. Increase in the number of older adults generally 5. Job or self-employment for community health coach trainees The training and services to be delivered from high street-based Community Health hubs can form part of the revitalisation of high streets. The high street health hubs will provide a centre for the training of Health Coaches, a hub for delivering services, a community venue for health literacy education sessions and workshops. The emphasis is on personalised health engagement between peers, complementing NHS/CP and other services. AgePlus (working name) will provide easily accessible personalised health and lifestyle support for older adults with the intention of improving the quality of life for both.
24	Silvee Technology-Assisted Retirement Coaching Programme (WINNER)	Retirement is a major, potentially disruptive transition that requires us to re-think our life, from structuring daily routine to managing social life and developing our identity. Between 10-25% of people experience stress and a drop in perceived wellbeing, which may also damage physical health. Retirement planning often focuses on finances alone, even though 'social planning' (how will I replace social contact I had at work?) and 'purpose planning' (how do I want to spend my time in a meaningful way?) are equally important. How may we support people to make the most of the many opportunities post retirement?	Silvee' is the first technology-assisted retirement coaching programme built on a hybrid model that consists of a digital coach, virtual peer group and seamless access to professional support, allowing the programme to be highly scalable. Silvee' helps retirees understand needs and goals, prepares personalised action plans and coaches them through the transition to promote stability and wellbeing. Potential customer journey: Sarah is offered access to 'Silvee' by her employer. Once she retires, she creates her profile and objectives. For Sarah, this is finding an active role in her community. She is matched to virtual peer groups with likeminded people, where she can exchange ideas and find inspiration. She can also chat with the digital coach through her smart speaker, which asks prompting questions to aid Sarah's thought process. Knowing her unique needs and ambitions, the digital coach can also connect her to professional support and advice, where necessary. 'Silvee' encourages and motivates people to stay active and continue connection between retirees and enables hyper-personalised recommendations. Through the hybrid model powered by AI and peer support, the system will be less expensive than human-run support services.
25	Duet	While digital technologies like video-calling and instant messaging have helped many of us eliminate distance between our friends and family, many elderly people have been left behind due to the inaccessibility of these tools. Since apps are equipped with increasingly complicated UIs, digital technologies have become more of a pain than an effective tool for the elderly to stay connected to their friends. This exacerbates the existing loneliness, isolation and lack of social contact they experience. Adding to the underlying health risks they might already have, the negative effects of loneliness could be tantamount to smoking 15 cigarettes a day.	Duet is an inclusive and intuitive communication tool that enables magical interactions across generations. Through Duet, anyone can send thoughtful and personal hand-written messages and drawings to their friends and family and interact with each other in creative and collaborative ways. Duet reconfigures advanced technologies such as physical computing and smart pen and converts them into familiar and timeless objects - pen and paper. This way, Duet removes the digital barriers and empowers users, especially the elderly, to express themselves in an easy, personal and intimate manner. The elderly can send handwritten notes or drawings to their families or friends who are away, and they can create and narrate stories together. Duet hence allows for creative interactions which keeps the aging members of the community mentally active and socially-connected. Current digital communication tools reduce our personality to plain texts and dilute our messages of care and love into standardized fonts. The digitalization of communication makes it difficult for the elderly who were not born into the digital area to navigate and properly convey their messages. Duet can help them benefit from the instantaneity of modern technologies without needing to subject themselves to confusion and give up their personality.
26	CommUnity	Loneliness is a major issue for old people, but actually for people of all ages. Ours is the lonely society, and there are particular gaps in relations between generations. People need easy access to ways that they can meet, collaborate with and help others, and be supported in return.	CommUnity would be an app and website enabling localised searching for organisations and projects. With simple buttons (How can I help? How can I join in? How can I meet? How can I support?) it would help unlock the barriers that keep people lonely and isolated and give a ready outlet to our wish volunteer and support others. Covid-19 has reminded us all of our innate desire to volunteer to support those in need (and sites like SpaceHive show the value that can be unlocked), but too often it is hard for people to know what needs are unmet, what they can deliver with the time and resources that they have available. Older people would as often like to help as be helped and feeling they have done the former often makes accepting the latter easier. The hope is that many of the activities and projects would be cross-generational, something sorely missed nowadays.
27	Neighbour Hunting [SHORTLISTED]	It is important for elderly people to stay active, in order to improve their physical health and maintain independence. However, it is often hard for older adults, especially the ones who live on their own to find exercise partners, as every individual's exercise ability and rhythm are different. This leads to a lack of motivation to practice regular physical activities. In addition, older adults who live alone tend to have difficulties staying in touch with society and having the feeling of being accompanied by others in their ageing process. This affects their mental wellbeing and, consequently, their physical health.	Neighbour Hunting is a community service that offers daily surprise walking plans for elderly people. It provides a safe way for older adults to meet new friends and discover new things in their neighbourhood while doing simple walking exercises. Each morning, every participant will receive a surprise walking route proposition, bringing excitement for them to start the new day. If they follow the walking route, they can encounter other participants during their walk, having more interaction with people in the neighbourhood. These surprise encounters will bring joy into their life and make them healthier. They will not only have more motivation to improve physical health through walking exercises but also have more social connections. Plus, Neighbour Hunting can strengthen community engagements and encourage members in the community to support each other in their ageing process, reducing loneliness and social isolation.

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Entry 28	Brainwave title Better Design for LTC Homes	Problem Currently, LTC residents are housed in in shared rooms similar to	Solution For cost efficiency, house two residents in a semiprivate room with a movable
	c .	hospital wards. This allows residents to get sick more easily especially during a pandemic.	wall in the middle. If one person gets sick, then the wall can be used to separate the residents. Each wing in LTC home, should have max. 4 rooms in a wing with a common room. This makes it easy to isolate people if they are sick and it makes the LTC feel less of a hospital. For residents who have dementia, they should reside on the ground floor with access to a wall garden as they tend to wander.
	TV	Singing is good for our lungs, mood and well being. Singing with other people can alleviate feelings of loneliness. Many older people cannot access online groups. Housebound people cannot access in person choirs or singing groups.	My brainwave is A daily singing programme on linear television. The live programme broadcast at the same time will establish singing as part of a daily routine. The programme would have an introduction with the broadcaster addressing the viewers and remarking on news worthy events, seasonal festivals etc thus connecting them to the outside world. Continued participation would be encouraged. Songs could be recorded and subtitled to enable repetition. The songs could be encouraged as song book in addition to subtitles. This could be produced in Braille and large print. Seated exercise could be included in warm up songs to incorporate some movement. In this increasingly technologically confusing age turning on the television each day is a familiar routine and memory clocks could be set to remind people that the singing programme is due. The programme would be dementia friendly but would aim to have a broader appeal possibly encouraging intergenerational participation.
		Many people are struggling with resilience to the challenges of later life, whereas those who can afford retirement living can maintain quality of life and consequent extension of their independance. Health and wellbeing packages are delivered to the individual reliant on NHS terms of provision, thus excluding quantifiable benefit to individuals. Main areas of need being community, socialisation, health checks, physiotherapy, dental and eye treatments. Mental health assessments and support. Regular exercise in a safe comfortable and relaxing environment. These are criteria acknowledged industry wide but currently unsustainable given the demographic need.	A cooperative of market leading retirement and later life living solutions providers, government supported and assisted in retrospect of maximising NHS saving by alleviating the field care costs. So, a twinning of a community with particular providers who have the facilities and care in situ. Expansion of facilities accrue asset value and supported by the health and wellbeing to community element for planning and development to further support the initiative. Thus making the initiative sustainable for the cooperative. Members of the community who are able to travel can be brought to the villages by their staff on given days and given opportunities for community, inclusion, purpose, socialisation, health both mental and physical. Treatment rooms can be utilised by local clinicians and therapists including podiatrists, hairdressers, counsellors ad infinitum. Swimming, pilates, yoga etc can also be provided. Reduced rates can be provided in the restaurants and tea rooms. The focus for the community. Extending independance through provision of life quality, support and experience. The focus for the Cooperative: Maximising facilities and assets through provision of means to extend services for continual positive evolvement of a growing demographic; a Silver Lining for later life.
31		These days, there is far less interaction between generations, than there ever has been through history. Although there are reasons behind this trend, lots of problems and unintended consequences result e.g. (i) Older people can feel isolated from society. They do not get the respect they have earned after a lifetime of contributing to society – that social contract has been broken. (ii) There is less opportunity for their wisdom and life experiences to be passed on to the young. In the UK, there is a shortage of accommodation, which disproportionately affects younger people - who struggle to pay high rents.	Borrowing from a successful Dutch idea, the Brainwave is to facilitate the young and old sharing accommodation, so that both benefit: • Set up a matchmaking service so that older people (who have living space available) and younger people (who struggle to pay rent) can find each other. • Young people get reduced or zero rent. In return they become enthusiastic members of the community they join, participating socially, and possibly helping out with jobs/activities. • Older people get a stronger and deeper connection with the outside world, and the energy and enthusiasm their new neighbours bring. In return they (e.g. care home, retirement home) allocate a few rooms or apartments for younger residents. • To help remove the blockers and friction, set up a charitable organisation to (for example): • design practical and pragmatic rules and guidelines to ensure pleasant and respectful living for all; • build a matchmaking service, perhaps using a website or other literature / advertising; • organise appropriate insurance policies etc, removing potentially difficult blockers.
	Lots of elderly people develop cataracts	There is a current backlog of vision impairing cataract 2.35 million in people older than 65.	I would like to use bioplastics as a supply for cataract lens and use bioplastic surgical equipment for the surgery itself as it creates a lot of unsustainable plastic waste.
	fracture radiology	The placement of a total hip replacement or hemiarthroplasty has to be ordered and then checked by an orthopaedic surgeon. There are delays in this process that can lead to life threatening complications.	We could use current AI radiology to screen the radiological images. We can create a situation where you have a very high negative predictive value. E.g. the system can tell you a hip radiograph is not an abnormal THR with 99% certainty. And where the certainty is less, it is passed to a clinician to verify.
	Longevity medicine and dementia care	Dementia has a significant impact on our NHS and we provide reactive medicine.	We could use artificial intelligence and machine learning to stratify peoples risk of developing dementia. We would do this by investigating big data from genetics, biomarkers, face analysis and even walking speed at 40 years of age. We would then provide preventative scientifically proven brain- rehabilitation programmes. Or we could use our understanding quality of life in the elderly to provide esources as support.We could explore AI and 3D printing bioplastic companion pets for people with dementia. It has been proven that emotional support and touch stimulation can improve the quality of life for someone with dementia.
	plastic	Loss of mobility in the elderly can be devastating. Loss of function and independence can lead to isolation, further physical decline and depression. How can we produce mobility aids that are environmentally friendly?	We could create a biodegradable bioplastic from food waste which can then be used to help mobilise our elderly.
	inoculated against the flu	It has been proven that the elderly need to be vaccinated against the flu to help prevent death. The flu vaccine syringes are made of environmentally harmful plastic.	We will use scientific evidence to turn food waste into eco syringes that are biodegradable and recyclable. We get to help the elderly fight the flu and revolutionise our planet's approach to climate change.

		Brainwave submissions 2021	0 1 <i>d</i>
Entry 37	Brainwave title Doubling down on	Problem Old people want to live at home but loneliness can be a real problem	Solution I read an article which compared the volunteer marshals during the vaccine
	volunteering (SHORTLISTED)	 and can make them forget to eat and also decline faster. Professional carers often don't have enough time to chat and also can't always schedule visits at times which make the biggest difference. 	rollout with the volunteers for the Olympics - both extremely successful projects. People are very cheerful and work together. Maybe if volunteers were based in their local GP practices, going to chat with elderly people or organise meals in the their homes in pairs and part of groups which could plan together, with a profile in the practice reflecting their value, such volunteering would be more popular. Many GP practices will have a list of volunteers from the vaccine rollout and relationships will have been built.
38	Supporting the elderly hear with bioplastics	I am currently on an elderly ward and we are forever trying to support our patients hear to help orientate them to time and space. In our NHS we produce a massive amount of environmentally unfriendly plastic waste. I have also noticed on the wards that we throw away a lot of food waste. Globally we waste 900 trillion tonnes of food.	There is a way to solve all of these problems. Through a series of reactions we can take food waste from its end of life and use it to grow a biopolymer in ancient bacteria. Then we can give birth to this bioplastic which is biodegradable after it has lived it's life as a hearing aid for our elderly patients on our NHS wards.
39	Multi-generational living (WiNNER)	Isolation, Ioneliness, reliance on the State to provide care packages of support. Families so often now live far away from each other, unable to just pop in and provide company, joy, interaction and much needed support. This can lead to elderly people feeling isolated, lonely, and detached from the world, leading to sadness and poor mental health, and worry about who will look after them if/when they become ill and infirm and need care. Solitude is a sadness we can avoid while protecting the burden on the State.	Encourage, promote, protect, and incentivise multi-generational living – (this could be for generations of the one family/families, or for friends, deciding to come together under one toof and could include a new property bought together; a younger adult moving in to live with an elderly person; or bringing elderly relatives in to live within a family home.) The brainwave is to create an investment vehicle which encourages this action/activity and also protects rights going forward, allowing the asset plus an amount of income/capital to be ring fenced and therefore secured from any challenge by other parties post death. Additional ideas could include: Tax breaks / allowances, to promote multi- generational living and encourage uptake. Need a planning system which will promote it and and/or easing of planning rules to easily allow for a granny annexe to be developed to accommodate a bit of privacy in the new arrangement. The benefits include companionship, proximity, benefits to mental health through involvement in a vibrant household where the elderly person has meaning and purpose. And where they are in a safe environment where people that care for them can help and provide support when this is needed, reducing the burden on the State.
40	Prescient (WINNER)	Due to the current global situation people and their families struggle to deal with healthcare issues while under lockdown. With access to medical help being limited and going out being risky a lot of the stress falls on the family. It also means the elderly become more dependent on their loved ones. A particular issue is Incontinence. Urinary incontinence can occur in people of all ages, and for a variety of reasons. However, a majority of the cases occur amongst the elderly with more than 60% of the people above the age of 70 suffering from the issue.	Introducing Prescient. Predicting Incontinence for the Elderly, noninvasively, so that they and their carers can enjoy life uninhibited. A wearable device to assist the elderly, and their families or carers, with incontinence, during and after Lockdown. This product is designed for those above the age of 75 who suffer from Urinary Incontinence. The people who suffer from this issue often feel uncomfortable talking about it as they find it uncomfortable which results in them feeling helpless and isolated. The aim for this product is to help the users and their families manage the difficulties that come with problem in a simpler way. It is designed to help prevent the issue from occurring rather than cure it. This is important as the availability of medicines and drugs is limited. When the device predicts the level of Urine in the body it sends out an alert on the Mobile app to the both the user and the Selected family member or carer. With an adaptive display the watch face changes according to the readings it takes and makes use of simple shapes and vibrant colours to inform the user.
41	Bridging the digital divide	Care is moving towards digital models with online avatars increasingly taking the place of face-to-face interactions. Older People are often financially excluded from digital interactions. It is not feasible for someone near the end of their life to spend a large amount of cash on a laptop or tablet.	Brainwave: Short-term laptop / tablet loans. We could establish 'to end of life' loans of pre-loaded simple laptops / tablets to enable internet browsing, shopping and communications like Teams / Zoom. For many older people who cannot spend the money on something they do not know how to use, they need support. The programme would also link to a pool of university students who provide tutoring in using the laptop / tablets and ongoing tech support, as well as building relationships between generations. At the end of the loan, the laptops / tablets would pass to schools where poorer students are also digitally excluded, or pass back into the programme.
42	Gaining impact and value from the Brains trust (SHGRTLISTED)	Older people lack social value and can be excluded.	Brainwave: Brains Trust. Older people have life experience and we need to promote their value in eyes of the young to have an impact. We propose a Brains trust of older people, who can keep on using their skills and experience to help younger generations. This could include the following elements: • Online Mentoring Brains trust: helping soon to / recently retired execs retain income and engagement with their former careers, plus maintaining their IT skills at the same time through a pay-as-you-go mentoring platform. Younger mentees book sessions with people online – like AirBnb for mentoring – people set their rates, can donate the £ or earn as income – older people gain digital skills • Oral History Brains trust: Linking older people with local schools, so students can ask questions for history or other social projects.
43	Aiding elder design	Problem: Buildings, places and spaces are often hostile for older people particularly those with dementia. A lack of accessible routes and available seating can make it impossible for older people to access public spaces while homes and workplaces can be hostile environments to those who are becoming frail.	Brainwave: Elder Design consultancy We launch a design consultancy platform to improve interior and public space design provision for older people. This can include adaptations for existing homes all the way to institutional buildings and care homes. Developers, architects and planners often lack real understanding of what people, particularly those who are older and those with dementia, need. The platform would sponsor a student design competition on elder solutions open to any UK student in design or related areas with the prize of funding for a patent to incentivise them to take their design to market.

Entry	Brainwave title	Brainwave submissions 2021 Problem	Solution
44	Brainwave title Revitalising town centres with walkable communities	Problem: Insolvencies of many high street brands have left high streets desolate and empty of people, with many iconic town centre buildings ripe for development, while many older people are trapped in out-sized housing in areas that suffer from a lack of public transport and limited or no walkability.	Brainwave: Urban redevelopment in town centres with co-located services for older and young people We launch a fund that find buildings to redevelop in close consultation with local communities to provide things that are needed at affordable prices for that communities. Department stores and other landmark community and institutional buildings now unoccupied could be the perfect environment for these redevelopments. Local authorities would get a double win for any investment in the fund, as they save money having the right type of accommodation for people who don't need residential care, while setting high standards of care and ensuring affordable services. These projects could include: • Youth groups, nurseries and elderly care alongside one another using community space, all managed by the same manager; the groups can interact while also sharing back office and other support to reduce costs and improve efficiency of services delivery. • Retirement community developments where we use vacant high street buildings to re-develop as retirement communities; these sites are well-served for infrastructure and services, revitalising town centres improving sustainability with walkability a key principle to remove the need for private cars.
45	Shared intergenerational multi-unit housing	Problem: Older people have larger homes while many suffer from loneliness and disconnection and many younger people lack housing and family connections in the areas they move for work.	Brainwave: Intergenerational multi-unit housing programme We launch a fund to convert the homes of older participants into multi- occupancy housing. The under- or un-used upper floors could have younger people living there following the conversion. The younger people could purchase shared equity through rent-to-buy arrangements, paying for the older person's care in a right-sized unit for that person. On entry of the older person to residential care or death, their family could sell the remaining portion of the property.
46	SHIM - Empowerment platform for older people.	The older population in UK/EU will double by 2050. Our research shows that 40% of older people worry about their health, independence and well-being but don't report it which ultimately impacts physical and mental health. Many feel that reporting concerns will result in a burden to family, carers and even emergency services. Costs of care also increases when physical or mental issues are not dealt with quickly. The costs to our health care services will not just rise, but skyrocket. Covid has magnified the importance of finding solutions to the growing ageing market.	SHIM is a platform that connects the over 65s directly to the health care ecosystem. We offer a one of a kind service via a smartwatch which proactively determines the key concerns of an older person and connects them to services which will help them alleviate these concerns. Our service has been proven to reduce long-term care costs of a minimum of £33,000/person, significantly increase independence, reduce hospital admission, add a minimum of 1 extra year of healthy life and combat the number one concern of older people worldwide – loneliness. We collect data anonymously, securely and use it to determine impact of services on key concerns of an ageing individual and to continuously measure and predict how older people are dealing with their wellbeing, health, independence and social connection. We want to empower the ageing market to manage their concerns efficiently and effectively so that they have peace of mind they are not being a burden and so their families have peace of mind that their loved ones are healthy and happy.
47	Dancing Digits for Dementia	Helping the older generation to be Happy and Healthy is so important. We need to pay more attention to things that humanistic and not invent another App. How can we help the older generation to satisfy their humanistic needs - for example - give them more opportunities to have fun? be sociable, feel connected? In real life, not through technology?	There is a need for more real life, fun, engaging and active activities for the older generation. Activities that stimulate and connect the brain and body. These activities need to be easily accessible, high quality and well supported. Context: Before COVID I was leading a serious of seated 'movement and maths' classes for a group of older people with dementia. This project was funded by Nottinghamshire County Cricket Club. The participants really enjoyed the classes and looked forward to coming along. As well as doing some simple stretching exercises, we performed all kinds of movement sequences and dance steps and practised the timestables!. There was always lots of laughter and positive energy too Provide weekly Dancing Digits classes in community settings. For older people in care homes, residential homes, and who live at home. Falls prevention, saves NHS money? Happiness, less trips to the doctors? trial, test
48	The Silver Finance Partnership	In 50 years time, there are likely to be an additional 8.6 million people over the age of 65+ in the UK. In tandem with the rise in need for private care home facilities, other areas of the elderly care market such as assisted living and close care housing will need to expand on both a private and public scale to match the demand for healthcare and to fulfi this demand in an equitable way. This requires a supply of public elderly care facilities - care homes, close care homes, and assisted living facilities - to be built and managed.	The Silver Finance Partnership would use a catalytic capital model backed by a UK Developmental Finance Institute (DFI) to attract mid- and long- term capital to develop a mix of elderly care solutions that would be migrated to local authorities for hybrid management over the lifecycle of the investment. A catalytic capital model is one in which one actor takes a disproportionate share of risk or concessionary returns to generate positive impact. The DFI, which could be financed through governmental debt financing in a one-time issuance of 'Grey Bonds', would accept first losses accrued. This model has three effects: It allows the Partnership to lower the barriers of entry and risk for private capital into a market and timeframe. With lower risk, investment firms in adjacent fields would be encouraged to develop novel elderly care solutions. It facilitates more innovative elderly care solution design. As the risk balance is tilted towards the DFI, more innovative solutions like multi-generational living, redesigned communities etc. can be proposed and built. The handover of the sustainable care facilities into public hands would lead to more equitable access to these public private care homes and assisted living facilities.

Entry	Brainwave title	Problem	Solution
49	Portfolio Plus - A Contemporary Approach to Retirement Savings		
	Retirement Savings		 Invest a greater proportion in music royalties in the asset allocations of pension products to incorporate more income. This asset category benefits from robust yields (c.7.10%%) relative to investment grade and first world sovereign debt, with a long-dated profile featuring a substantially lower degree of correlation with general economic activity Transition the portfolio to financial products categorised as ESG-aware (as per Article 8 of the EU Sustainable Finance Disclosure Regulation, for example). This is serves to reduce the risk exposure to (a) investment valuation markdowns associated with a perception of heightened ESG risk and (b) actual risk associated with low ESG management (e.g. flood damage, labour violation settlements, etc) Multi-asset portfolios are beneficial for retirees as they diversify exposure to certain risk factors. However, to increase understanding, it is important that these exposures are visualised in terms of both asset class exposure and underlying risk factor resposure. Plain-language descriptions of each asset class and their role in a portfolio should be offered.
50	Social Care Bonds [SHORTLISTED]	Age UK's report, "Why call it care when no one cares", summarises the real-life issues being faced by older people needing care and those supporting them. Several people highlighted the extremely high cost of paying for care and the structural lack of funding for elderly care.	My suggestion would be to introduce new "Social Care Bonds"whose proceeds are exclusively applied to finance new or existing projects in the elderly care space. For investors this would not only provide attractive financial returns, relative to similarly rated government bonds, but would improve the ESG profile of their investments. The UN Sustainable Development Goals that would be in scope for these bonds include: 1) No Poverty, 3) Good Health and Well-Being, and 11) Sustainable Cities and Communities. The broader emerging social bond market save record issuance in 2020 with annual growth of 8 times and an overall market size of over \$175bn. At current, these consist of pandemic bonds - which allocate proceeds towards the preservation of employment and/or healthcare; social housing bonds; and inclusion/diversity bonds - which finance investments that seek to help reduce inequalities. Among typical issuers are supranationals organisations, government agencies, financial institutions and corporations.
51	The 'Uber' of Older Adult Companionship	The problem is that of isolation, loneliness and lack of stimulation that many older adults experience, particularly when living alone and having health and/or mobility difficulties. The problem is compounded if older adults don't have any friends or family near to them for form a support circle. The problem is further compounded if a sense of low self-esteem and self-worth is also experienced. The latter being unfortunately common.	A potential and partial solution to this problem, that I present here, is a service that borrows elements from the 'gig economy'. It's an app on all devices (included smart TVs and Amazon Alexas) designed to be very accessible, that allows older adults to choose an activity (such as playing a game of chess, going to a walk, having a chat, getting help with shooping) and then choose a person to take part in that activity with them. The person (service provider) will visit the older adult (or meet online) for an hour and then be available for other visits/meetings). Service providers are rated with reviews, so that people can learn about who they are going to a visited by. They can also be 'favourited' for future visits. The short nature of interactions may make it easier for people who are not used to a lot of social contact. The app will ask for the interests and background of the person to recommend activities and 'service providers' (i.e. French speaking). The app can be used remotely by family members who can't visit, to help arrange visits/meetings by 'service providers' themselves will be carefully selected, trained and gone through rigorous safeguarding procedures.
52	Watch-along With Me	Many older adults spending a lot of time alone in their houses. Many older adults I have spoken to,including my dad who lives in a council owned retirement block of flats, say that they spend a lot of time watching TV. The problem could be seen as isolation and not being motivated to get out of ones 'comfort zone'.	The idea is a smart TV app that allows older adults to connect with each and watch TV shows, sporting events and films together, using 'screen in screen' technology. This means the TV program will be on screen and there will be a smaller screen with the person they are watching with. This solution allows social interaction that is grounded in existing habits. The users can choose to watch-along with the same person again for set up chats with them. The app will take personal interests of users such as what football team they support, and the app will then match users who have similar interest. This will allow fellow supporters to watch their team playing, together.
53	FunFit Online	conditions, frailty and isolation. Exercise can help in these areas. But current gyms are not suitable because of safety, loud music, majority young adults and lack of knowledgeable trainers. Furthermore, due to Lockdown, many older adults are less fit than they were previously, putting them at increased risk of frailty. Yet we live in a time when further Lockdowns are a genuine possibility. Although there is an increased willingness to use online exercise	Ny solution is an online exercise video subscription service which provides On Demand content, as well as live classes specifically for the Over 55's. The pre- recorded videos on this platform will be focused on the areas of strength, fitness, co-ordination, balance, flexibility, and mindset. The videos will be 10 – 30 mins long and at the levels of 'suitable for all' or 'more challenging'. The aim will be to guide members in meeting or exceeding the NHS physical activity guidelines. The vision is for this platform to become an older adult focused, simplified, version of the Peloton app. Mixed with the social good concept of Toms shoes. Just like the Peloton app, there will be multiple instructors with different skillsets. Like Toms Shoes, for every membership purchased, an equivalent one will be made available to someone in financial difficulty. Giving members an added sense of purpose. Members will be able to engage with instructors in their pre-recorded sessions, as well as join them in their morning live online classes. Live online classes can still provide a sense of community, accountability and structure to the day which will help members regardless of Lockdowns, or pandemic fears.