



ACTIVE LAB

DCMS inquiry ukactive response
Immersive and Addictive Technologies

Executive Summary

Gamification and virtual reality technologies have immense potential in getting more people, more active, more often, by creating personalised experiences accessible to all.

We urge government to support these technologies in light of their versatile applicability in:

- ▶ Getting children and families active
- ▶ Supporting rehabilitation and long-term conditions
- ▶ Supporting older people to age well
- ▶ Enhancing customer experience in the physical activity sector

Key policy recommendation: NHS digital should ring-fence funds focussing on preventative digital technologies – engaging people of all ages in healthy behaviours and leveraging the power of the world’s largest technology companies in sport.

Introduction to ukactive

[ukactive](#) is the leading not-for-profit health body for the physical activity sector. We work with over four thousand members and partners who share a common ambition to get more people, more active, more often, by raising physical activity as a top tier public health issue. These include leading physical activity and fitness facility operators, equipment suppliers, charities and the fitness technology (FitTech) sector – who in sum represent thousands of facilities, employ tens of thousands of activity professionals and deliver activity to millions of people every year.

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Introduction to ActiveLab

Recognising the growing reach of technology in our daily lives, ukactive launched [ActiveLab](#) in 2017 to encourage the application of technology in the physical activity space. ActiveLab was developed to support physical activity innovation through four interconnected channels:

- ▶ A 12-week accelerator programme supported by Life Fitness and Jonas
- ▶ A network of key stakeholders from around the FitTech ecosystem
- ▶ A partnership with ukactive's research institute to assess the impact of technology on activity
- ▶ Cooperation with 3rd parties to unleash the potential of technology in getting people active

Since 2017, ActiveLab has received **210 applications from the UK and abroad**, and has supported various virtual and augmented reality-centred businesses in their efforts to pierce through the physical activity market in the United Kingdom.



Wider Uses of Immersive Technologies

Getting Children Active

Recent research found that today's children are the least active generation ever. **Only 50% of seven-year-olds are meeting Chief Medical Officer guidelines for physical activity**¹. This finding is especially significant considering early school years "have been identified as a crucial time to promote healthy lifestyle habits, which could assist in the prevention of obesity and chronic diseases as children age"².

Throughout our conversations with young people, the role of technology, social media and gaming became apparent as a prominent factor in their daily lives. Figures from Ofcom show that children between ages of 5 and 15 spend nearly 2 hours a day online during the week, and nearly 3 hours a day at the weekend³.

Businesses have embraced technology use among children and families, and have devised creative ways to leverage it as a means to encourage physical activity.

Currently, the most notable deployment of these technologies to get more people active has been [Pokémon Go](#). The AR app has been downloaded over 800 million times and generated over \$1.2 billion in revenue in just over 2 years. More importantly, **Pokémon Go users increased the number of steps they did a day by 26%**⁴.

Another innovative example is [Randori](#), a cloud-based augmented reality rock climbing technology, which projects timed races and games on climbing walls in commercial gyms for members of all ages, sizes and levels.

Another example includes the [iWall](#), an innovative fitness gaming wall developed by CSE entertainment, which targets activity parks, airports, public places and schools to encourage physical activity among children.

According to research from the University of Minnesota, **'exergaming' or gamified exercise has positive effects in promoting children's moderate-to-vigorous physical activity at school and developing crucial motor skills**⁵.



Wider Uses of Immersive Technologies

Rehabilitation

Approximately 15 million people live with a long-term condition in the United Kingdom⁶.

Businesses are actively applying new technologies to help people with long-term conditions live healthier and more active lives - from physical rehabilitation after a stroke or an accident, to mental health treatment. For instance, **virtual reality technologies can be leveraged to create interactive, engaging physical, neuro-rehabilitation and mobility programmes to improve patient mobility and recovery.**

An example of this is **[Immersive Rehab](#)** – **a business that aims to increase the effectiveness of physical and neuro-rehabilitation and to make rehab a more fun and engaging experience.** Like physical rehabilitation, Immersive Rehab's virtual reality technology relies on neuroplasticity – the human brain's ability to change and adapt to the environment⁷. Traditional physical rehab is an arduous and often discouraging process, particularly for patients with limited upper limb mobility, because they do not have sufficient strength to engage with physical objects. In a virtual reality setting, everything is possible. When patients can interact with physical objects in the virtual world, they display an increased range of motion, longer engagement, and improved mental health⁸.

The use of virtual reality extends beyond physical rehabilitation. It has also been shown to provide benefits to people with a range of long-term health conditions, from dementia to post-traumatic stress disorder (PTSD)⁹. Studies show **that virtual reality exposure therapy engendered significant reductions in the severity of PTSD symptoms among active duty combatants who failed to respond to other forms of therapy**¹⁰.

Virtual reality has immense potential as a healing mechanism and is likely to be employed in a wide range of contexts such as care homes, children's hospitals and mental health clinics in the future.



Wider Uses of Immersive Technologies

Ageing Well

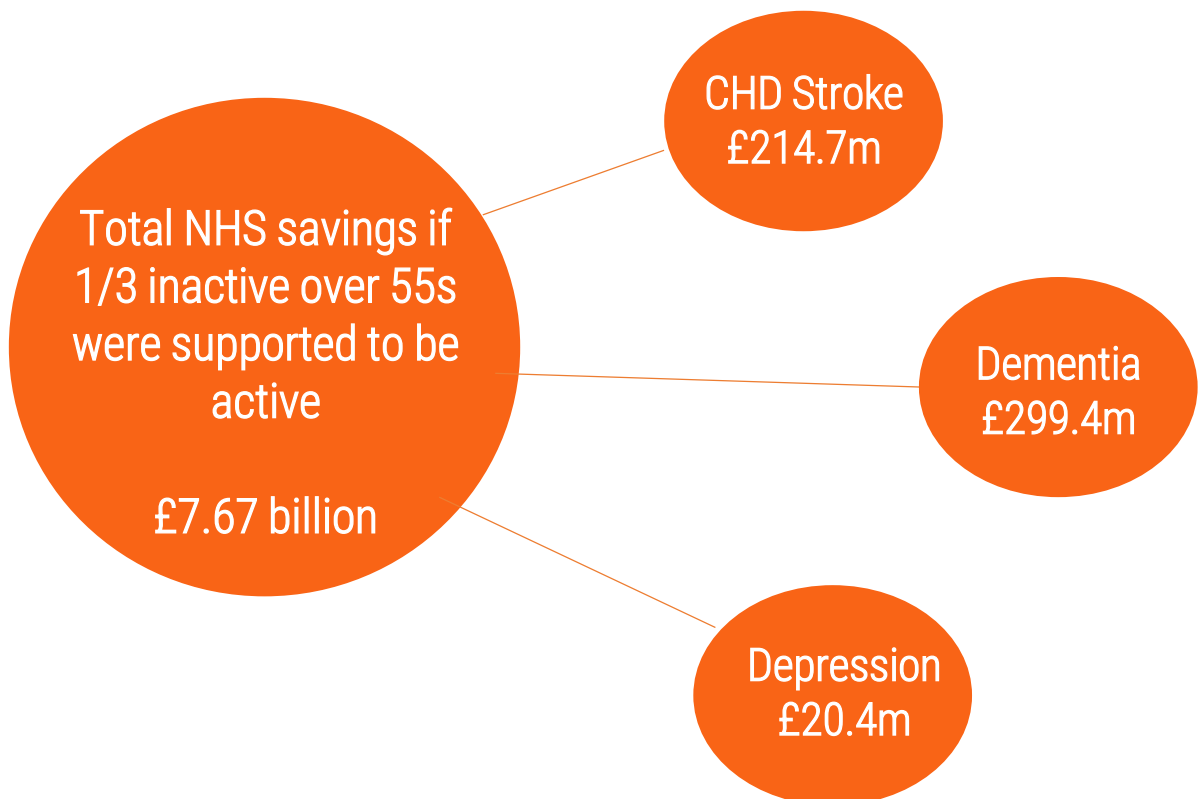
By 2030, the number of people in the UK aged over 60 is estimated to increase to 20 million – up 31% from today's figure of 15.3 million.

Supporting a nation that is growing older, and encouraging them to move more, requires a transformation in the culture and perceptions we have towards ageing – and that begins by harnessing the potential of existing technologies.

The benefits of 'exergaming' as described above are not limited to children and young people. In fact, experts say that "exergames have good prospects to motivate people from all age groups to be more physically active"¹¹, including over 55s.

A key example of 'exergaming' is [Memoride](#) – a product developed by ActiveLab business Activ84Health, who offer active AR experiences via Google Street View for older people who struggle to leave their home – providing both physical and mental benefits.

Supporting these types of technologies is crucial, in light of estimated figures that a total of £7.67 billion could be achieved in NHS and healthcare savings if one third of inactive over 55s were supported to be active over the next ten years¹².



Wider Uses of Immersive Technologies

Enhancing Consumer Experience

The physical activity sector has grown substantially over the past decade. This is seen not only in the expansion in the number of gyms and leisure facilities, but also in the growing number of facility members, the diversification of users, and increased utilisation rates of existing customers¹³.

Sport England's Active Lives Survey found that almost 200,000 more people got active through taught fitness classes in 2018¹⁴. In light of these figures, the fitness industry continues to leverage virtual and augmented reality technologies to improve customer experience and enhance performance.

An example of this is [The Trip™ – Les Mills' immersive studio cycling experience](#) – that combines a 40-minute cycling workout with a journey through digitally-created worlds. The concept allows customers to achieve high-quality workouts whilst enjoying unique audio-visual worlds for positive and fun sensations¹⁵.

According to the Journal of Medicine & Science in Sports & Exercise, [immersive cycling environments yield high intensity heart rates without high-perceived effort in novice exercisers](#)¹⁶. This enables participants to achieve the necessary intensity threshold to continually improve fitness and reduce disease risk without experiencing the unpleasant feelings typically associated to such training. In doing so, immersive cycling tackles issues of low compliance among novice exercisers and presents an immense opportunity in getting more people, more active, more often.

Another example is FLY LDN, which offers immersive yoga classes to improve focus and relaxation. The studio features a cinematic screen that displays views of lakes, mountains and crashing swells with accompanying soundtracks to enhance customer experience and mindfulness. Academic [research highlights the effectiveness of viewing nature or recorded scenes of nature in improving perceived levels of stress and anxiety](#)¹⁷.



Work with us

Connect with ukactive & ActiveLab

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References

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