

# SBRI HEALTHCARE CASE STUDY

## ProReal Limited



### INNOVATION

An immersive, avatar-based, virtual world software platform that supports mental health care by helping people describe difficult thoughts and feelings. It helps people with a range of symptoms and diagnoses, including stress, anxiety, autism, depression, trauma and personality disorders.

### COMPETITION

Mental Health

### FURTHER INFORMATION

*Web:* [www.proreal.world](http://www.proreal.world)

*Tel:* +44 (0) 1483 651391 *Email:* [info@proreal.world](mailto:info@proreal.world)



### CLINICAL NEED

Mental ill-health costs England more than £105bn a year, with depression and anxiety being the condition with the highest prevalence – and poor mental health often begins in early teenage years.

A Public Health England report into the mental health of children and young people published in December 2016 confirmed that mental health illnesses are a leading cause of health-related disabilities. These can affect someone's education, physical health, social relationships and their employment prospects for the rest of their lives. The same report claims that only 25% of young people who need mental health treatment actually get it.

There has long been a link between mental health and offending behaviour. Up to 90% of prisoners (source: Sainsbury Centre for Mental Health) have at least one mental health problem, with the incidence of depression and anxiety among adult prisoners at 45% compared to 13.8% for the general population. Could technology be used to reduce re-offending rates and improve mental health?

### SUMMARY OF INNOVATION

ProReal is an immersive, avatar-based virtual world platform that helps people communicate in a dynamic and visual way. Built using 3D gaming technology this virtual reality communication tool is independently evidenced to accelerate insight and change.

Users become engaged in the technology which creates a virtual representation of each individual's world and is populated by people (avatars) and landscape props to help them explain how they see different situations, including conflict with others.

## PATIENT PERSPECTIVE

The Avatar-based therapy was first tested in a small pilot study within a private prison, where residents and staff explored the use of ProReal's solution to encourage inmates to make visible their thoughts, feelings and experiences of the world. Overall there were improvements in the inmates' levels of psychological distress. These include 'remaining positive' and 'to stop committing crimes and become a better person'.

Subsequently, ProReal focused on provision of the therapy to young people (11 to 18 years old). Avatar-based counselling was used within a cohort of approximately 54 people to evaluate the effectiveness of ProReal in reducing levels of psychological difficulties. The use of interactive gaming and avatars was demonstrated to elicit a more honest portrayal of how a person is feeling in different situations. Using the ProReal software platform, people can access treatment easily, disclose their feelings more readily and thus accelerate their healing process.

***"It made it like easier and quicker to be able to explain things because I didn't have to speak a lot to explain something, I could just show it using the props."***

*Teenager in school counseling*

## COMPANY OVERVIEW

ProReal was founded in 2012 as a software development and management consultancy company. ProReal's innovative technology provides its users (clients, service users, patients) with a safe, secure and confidential visual way to describe how they experience the world.

ProReal's chief executive Andrew Jackson, a former partner at Pricewaterhouse Coopers and an executive in IBM's Global Business Services team, says the fun element of using avatar technology in psychological treatment is becoming a crucial selling point.

***"When it comes to mental health, people can find it hard to express their thoughts and feelings and have those difficult conversations. Counsellors are used to bringing in tools to boost engagement, maybe toys or art, and using avatar-based technology is an extension of that."***

*Andrew Jackson, CEO, ProReal*

ProReal were awarded just over £1M from SBRI Healthcare to trial their solution in a prison setting and in Child and Adolescent Mental Health Services. Its first paying NHS client was South London and Maudsley NHS Foundation Trust which became a client following a feasibility study with patients with borderline personality disorder. The study was overseen by MindTech, Oxford Health NHS Foundation Trust and the University of Bristol.

Other organisation now on board include; Oxford Health, MerseyCare, Bradford Care and Birmingham and Solihull NHS Foundation Trusts and a number of leading third sector providers.

## NHS IMPACT

The NHS benefits from ProReal by saving time and money for patients and clinicians while notably improving healthcare outcomes. Moreover, the platform is a growing success outside of the national health service. ProReal has evolved into a successful UK-based global software and training company, with Motorola, IBM and Siemens among its corporate customer base.

The technology is widely used in the corporate world where there has been a 40% reduction in costs compared to using purely face to face support.

***"ProReal is a fantastic example of how technology can have potential benefits for mental health... A key reason for ProReal's success has been its ability to work with and learn from service users, healthcare professionals and academics. This has meant that its work has been informed and shaped by unmet clinical needs in a range of clinical contexts."***

*Professor Chris Hollis, professor of child and adolescent psychiatry and Director for NIHR MindTech MIC*