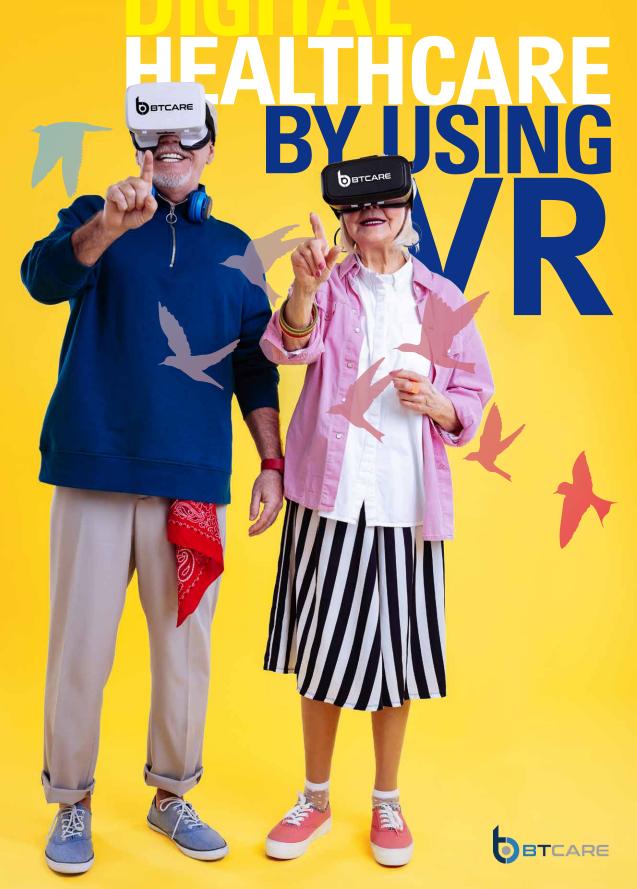
# **SENIOR**





03

## **BT:CARE Solutions**

#### **Senior-Friendly VR Solutions**

Continuous, preventative treatment is the only way to fight dementia, and BT:CARE offers easy, exciting VR game treatments that help keep users happy, healthy and dementia-free!

#### **Exciting VR Games**

A whole new way of training the brain, BT:CARE's VR Games will give you a fully immersive and realistic experience that keeps your brain ready and alert.

#### **Senior-Friendly**

BT:CARE's preninstalled VR games include senior-friendly settings and objectives that help users feel comfortable while they enjoy interacting with new technologies.

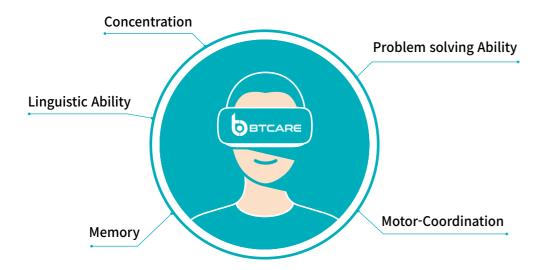
#### **Safe For Everyone!**

Tested and proven in over 1,000 cases. In a customer satisfaction poll 98% of users were excited to use it again.

#### Innovative

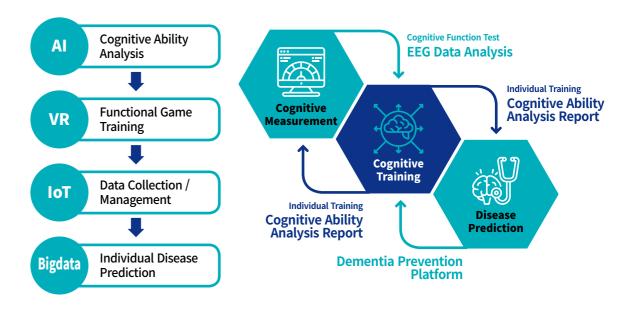
BT:CARE's intuitive game were developed by neurologists, brain rehabilitation experts, and senior care professionals.

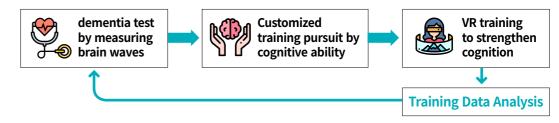
#### **VR Cognitive Enhancement Training**



Cognitive enhancement training system that maximizes **realism** and **immersion**.

## **Process & Application**





**Dementia** 

Test

Cognitive

Healing



 Conducts diagnostic tests on the user's cognitive abilities using attention-focused, execution judgment, and abstract thinking exercises

#### **VR Games**

- Provide familiar training environment in VR
- Reducing rejection, intimidation, and fatigue through VR convergence systems of paper-oriented existing cognitive training programs

#### **Data Analysis**

- Development of VR contents that can be experienced in various situations
- Development of a device dedicated to the cognitive training VR system
- APP-based cognitive training VR service that provides training environment anytime, anywhere

Brain Cognitive training **VR Solution** 

Intelligent

Data

Management

- User recommendation of
- cognitive training programs

   Building big data for program
  difficulty and level of awareness
- Present future training types and methods that have improved behavior patterns

02

## **Product Components and Services**

## **Kiosk-type for cognitive reinforcement program**

#### **Basic components**

Kiosk, HMD1 set, 8 training contents



#### **Expansion components**

**Brain wave** measuring instrument for objective cognitive measurement



#### **Group training**

#### Up to 10 people can be trained

at the same time providing cooperative/ competitive VR trainig simplify trainee management with screen segmentation.











#### **Backpack-type for caregiver services**

#### **Basic components**

Backpack, tablet, HMD1 set, **Expansion components** 8 training contents



**Brain wave** measuring instrument for objective cognitive measurement





Providing home programs and cognitive training curriculum

**Cognitive Training** 



#### **Social distance training model**

## **Market Applicability**



**SENIOR WELLFARE** 

**CENTERS** 

**DEMENTIA CARE** 

**CENTERS** 

**CARE HOMES GERIATRIC HOSPITALS** 

**CAREGIVER SERVICES** PRIVATE CUSTOMER USE

## **Cognitive Strengthening Curriculum Included**





04

05

## **Cognitive Training Games Included:**

#### Concentration



#### **Bird Hunt**

Bird Hunt is a hand-eye coordination game where the player protects seagulls from aggressive crows at the beach.

Bird Hunt stimulates the frontal lobe through selective judgments and fast shape/color identification, the

game improves a player's attention to detail. By supporting cerebral function, Bird Hunt improves body motor control by utilizing both muscle learning and cerebellum activation.

#### Memory

06



#### **Fireworks**

Fireworks is a brain training program that asks the player to watch, remember and reproduce the sequences of fireworks launched from the Diamond Bridge in South Korea.

Fireworks stimulates the hippocampus, the area of

the brain responsible for short and long-term learning and memory, the goal of Fireworks is to encourage and improve player memory consolidation.



#### Tidy Up

Tidy Up is a game tht gives players a few moments to remember the location of items around a room, then an event occurs during which the items fall down and need to reorganized back into their correct locations. The player then needs to identify

what changed and put each itme back in its orignal location.

Tidy Up stimulates the hippocampus, the area of the brain responsible for short and long-term memory the goal of Tidy Up is to imporve player memory consolidation and spatial awareness.

#### **Executive Funtion**



#### Banking

Banking is a training program that is used to practice daily activities for players (like using an ATM at the bank) but in the safety of virtual reality. Banking stimulates the memory areas of the temporal lobe, frontal lobe and prefrontal cortex by

requiring planned, complex movements and improving cognitive abilities to solve problems, thereby improving executive function.

## **Cognitive Training Games Included:**



#### **Grocery Shopping**

Grocery Shopping is a daily activity training program where the player's objective is to buy ingredients for home cooking at the grocery store. Grocery Shopping stimulates the memory areas of the temporal lobe, frontal lobe and prefrontal

cortex by requiring planned, complex movements and improving cognitive abilities to solve problems, thereby improving executive function.



#### Cocktails on the Hill

Cocktails on the Hill is a training game where players make fruit cocktails by first memorizing drink ingredients, second gathering the ingredients and finally shaking the ingredients together to make a fruit cocktail.

Cocktails on the Hill specifically stimulates the temporal lobe which is directly responsible for memory function, and the frontal lobe which is responsible for problem-solving. This specific stimulation of the cerebral functions in the cerebellum allows players to complete complex movements, thus supporting improvement of player motor control skills.

## **Physical Intelligence**



#### **Double Bird Hunt**

Double Bird Hunt is an attention and response control training program where which aggressive birds are shot in pairs during co-op play. By receiving visual information and sensory signals,

Double Bird Hunt stimulates the occipital and

parietal lobes, thereby incentivizing the frontal lobe to focus its premotor and primary motor cortexes to regulate and improve motor control abilities, like eye-hand coordination, in tandem with the cerebellum.



#### **Avoid the Bird Poop**

Avoid the Bird Poop is a training game where players need to shot down aggressive crows while avoiding bird droppings or blocking them with a

The aim of Avoid the Bird Poop is to stimulate the occipital and parietal lobes, thereby incentivizing the frontal lobe to focus its premotor and primary motor cortexes to regulate and improve motor control abilities, like eye-hand coordination, in tandem with the cerebellum to accomplish the task at hand.

07

Mrs. Lee

#### 78 Years Old Busan, Korea

"It keeps my brain sharp and keeps my nerves firing. I was so depressed that I just wanted to end my own life when I found out I had dementia... but this game brought me back from the brink and back to the world. Thank you so much BT:CARE." healthy and dementia-free!



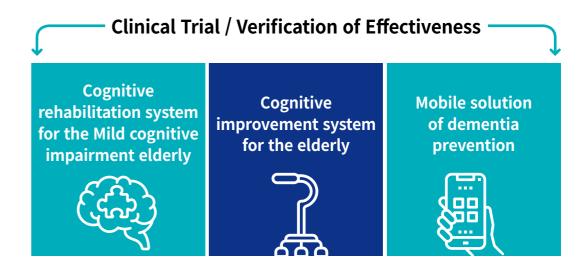
**BT:CARE TESTIMONIALS** 

## Mrs. Jung 75 Years Old Busan, Korea

"I used to feel so lonely and isolated. I had no desire to do anything but stare at the TV screen with empty eyes. But, after I played BT:CARE's VR games my brain fog disappeared and I started to wake up again. I am so thankful to this program for changing my life and helping me to find the joy of being alive again."



## **BT:CARE Solutions Proven Reliability**



# Clinical trial results published in medical & public health journals

## Validation of VR Solution Effectiveness to Strengthen the Perception of the Elderly

Journal of Clinical Medicine, 2020

< The Effect of a Virtual Reality-Based Intervention Program on Cognition in Older Adults with Mild Cognitive Impairment: A Randomized Control Trial >

# The Effect of a Virtual Reality-Based Intervention Program on Cognition in Older Adults with Mild Cognitive Impairment: A Randomized Control Trial Ngermass Thaps 1-30, Hy In Ir No. 1/2, 16-Cyrong Yang, 1/2, Heurn Ston 1/2, Minrows Dags 1/2, Jipyrou Lee 1/2, Stong Wang, 1/2, Heurn Ston 1/2, Minrows Dags 1/2, Jipyrou Lee 1/2, Stong Wang, 1/2, Minrows Dags 1/2, Jipyrou Lee 1/2, Stong Wang, 1/2, Minrow Dags 1/2, Jipyrou Lee 1/2, Stong Wang, 1/2, Minrow Dags 1/2, Jipyrou Lee 1/2, Stong Wang, 1/2, Minrow Dags 1/2, Jipyrou Lee 1/2, J

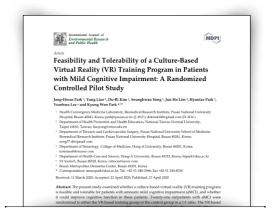
#### Conductis a cerebral cortex test

Improved executive function (frontal lobe), walking speed (electronic, nervous system), and physical function.

#### Validation of the Effectiveness of VR Solutions on Traditional Cultural Contents for Patients with mild cognitive impairment

International Journal of Environmental Research and Public Health, 2020

< Feasibility and Tolerability of a Culture-Based Virtual Reality (VR) Training Program in Patients with Mild Cognitive Impairment: A Randomized Controlled Pilot Study >



VR training that uses traditional culture to better intigrate BT:CARE training and methodology to eldery patients

Compliance, adherence 91.55%  $\pm$  6.41%

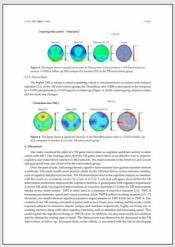
## Studies

The BT:CARE system was studied in a randomized control trail, the results of which were published in the research paper: The Effects of a Virtual Reality-based Intervention Program on Cognition In Older Adults With Mild Cognitive Impairment.



**Studies and Patents** 





#### **Patents**

BT:CARE's patented VR cognitive rehabilitation training method & system has 12 Korean and international patents.







## **Company History**

#### **SYINOTECH Inc.**

 Technology development
 IoT-based VR utilization system of cognitive training for patients susceptible to cognitive impairment exercise program

R&D

- Platform launch
- VR Cognitive Training Platform for Dementia Prevention (BT:CARE)
- Patent, Accreditation Acquisition
- Copyright registration

#### **Advancement period**

2016 2017 2018 2019 2020

## Establishment of corporation

- Dementia prevention industry demand recognition
- Composition of professional personnel
- Robotics
- Game development
- Welfare for the elderly
- Overseas marketing

#### **Growth period**

- Content development
- CBig Data VR Utilization Content for
- the Prevention of Elderly Dementia
   Clinical Testing of VR-based
  Cognitive Training System

#### Commercialization

- Establishment of subsidiary research institute
- R&D, MOU progress
- Delivery to public and private institutions

#### **Partnerships**









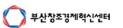


























## **BT:CARE by SYINOTECH Inc.**