

Technology 01

The Evolved Biometric Authentication



Providing optimal biometrics in diverse settings



Face/Iris multimodal biometric authentication

High-precision authentication with a false acceptance rate^{*1} of less than 1 in 10 billion
The ultimate authentication method that covers the entire global population

^{*1}: The rate at which unauthorized persons are incorrectly accepted (for one-on-one recognition)

- **No need for IC cards or passwords**
- **two-modal authentication completed in 2 seconds**



Face
recognition



Iris
recognition

The combination of the above, with an authentication rate higher than 99%, can achieve higher security and application on a larger scale

Government
project
data center

Payment
at shops

When wearing
dustproof
clothing
and mask

Dedicated
authentication
device

**Bio-IDiom
Multimodal Device**

**Ultra-high accurate
authentication
Touchless
authentication**

Anti-spoofing

Detects and blocks
photos and printed
materials

Universal design

Automatic adjustment
of capture position
(Tilt control)



November 2022

Sales launch

Rolling out abroad
starting next spring

**Future
prospect**

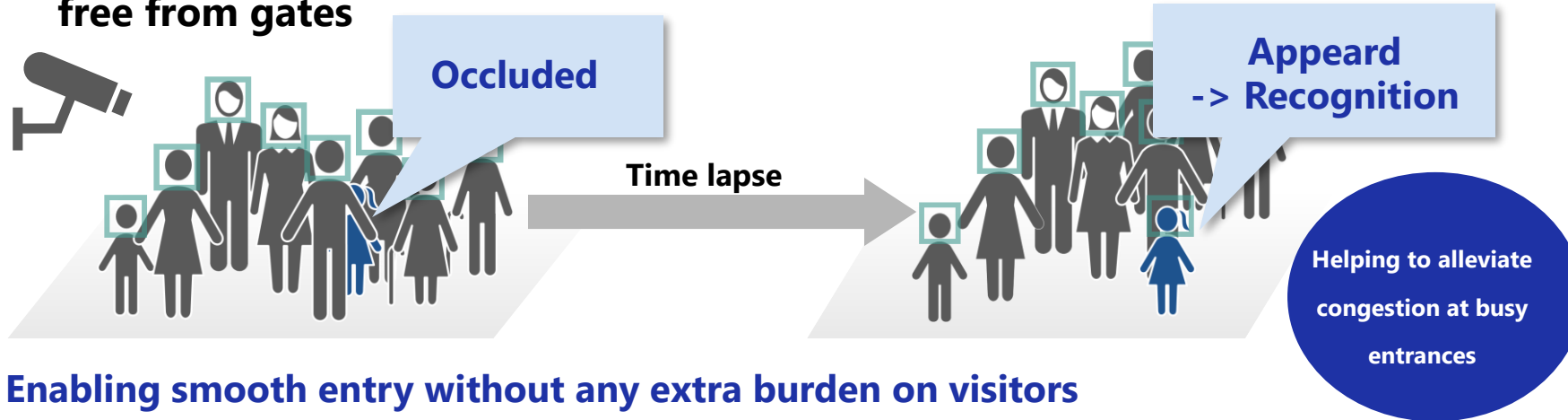
Apply launched products to payments and border control worldwide



Gateless Access Control System using Biometric Recognition

Real-time authentication of multiple people enables quick and smooth entry

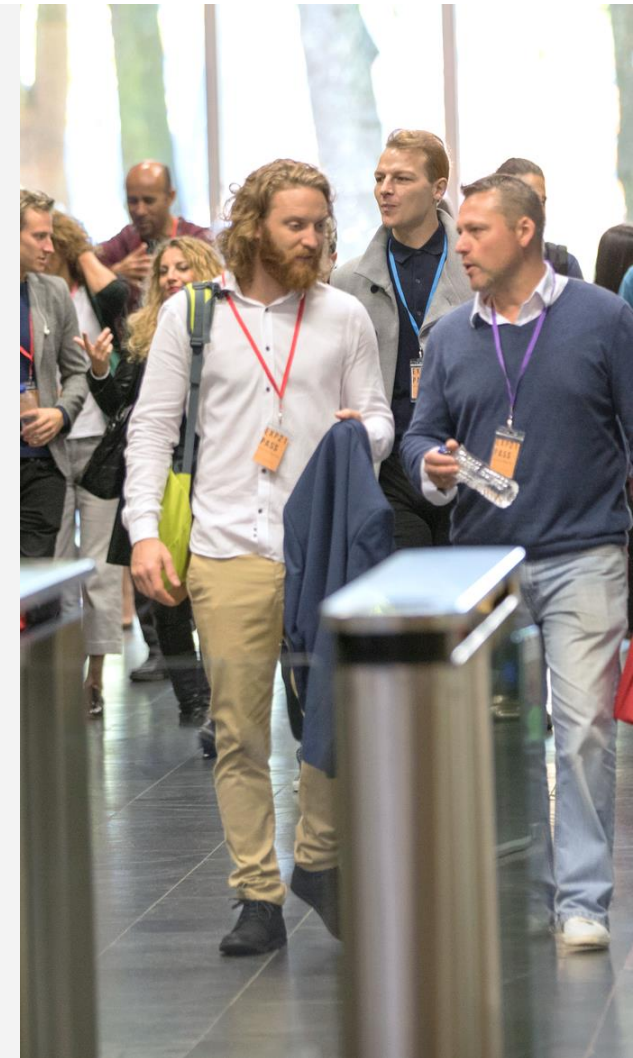
- Combining face recognition with person re-identification which matches the characteristics of a person's clothing, provides fast and reliable entry control free from gates



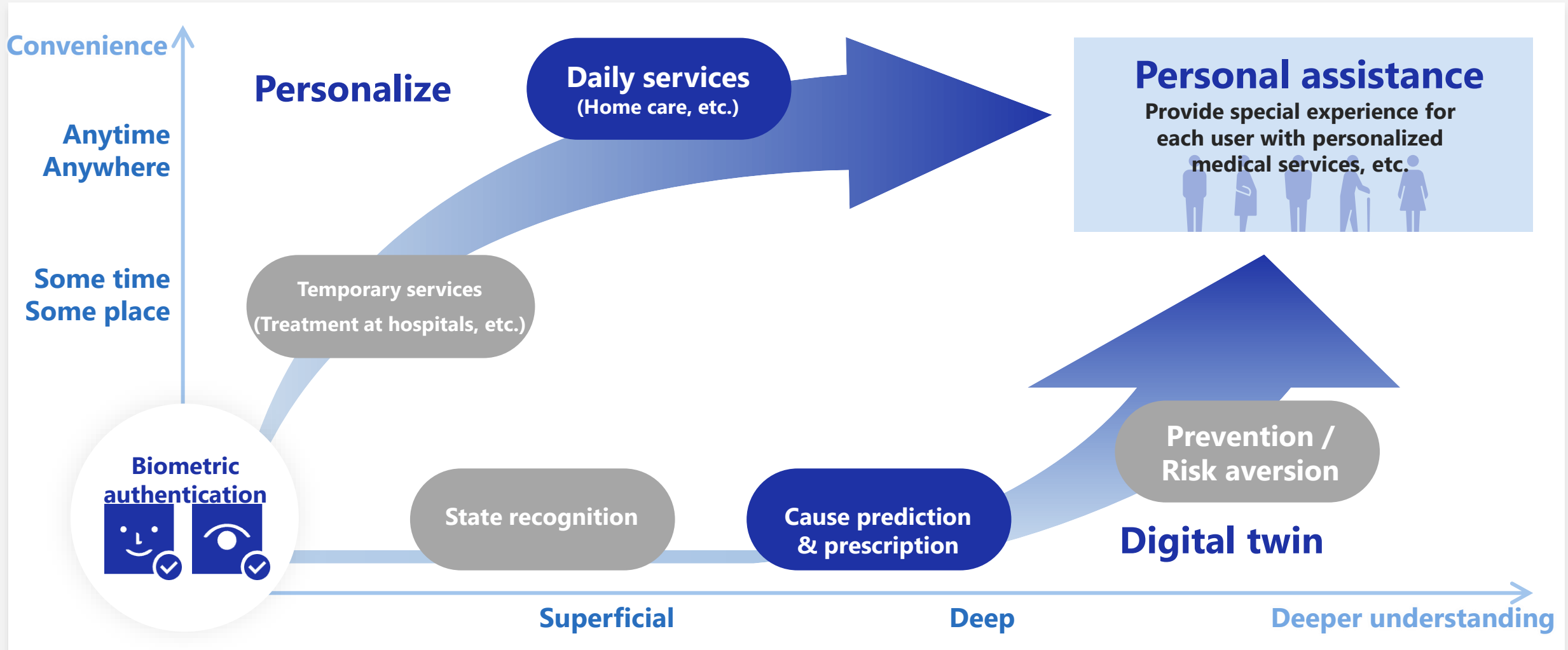
Enabling smooth entry without any extra burden on visitors

Future prospect

Provide comfortable customer experience free of gate passing queues and card-touch processing waiting



From biometric authentication to understanding people and providing personal assistance



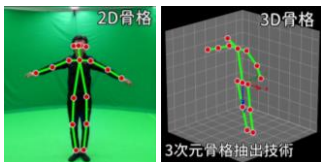
Digital transformation for physical care

AI suggests appropriate exercise menus.

You can access high-quality physical care with just a mobile app.

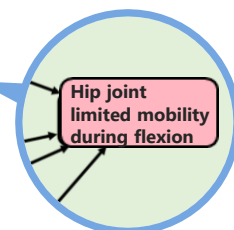
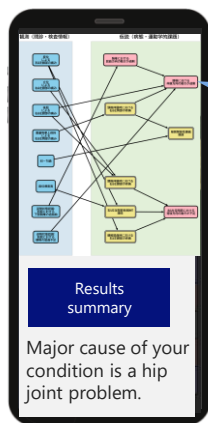
- AI enables physical condition recognition, cause prediction, and exercise menu suggestion, equivalent to physical therapists.

Physical condition recognition



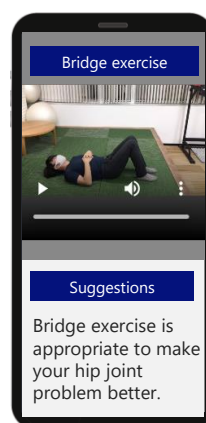
Recognition of condition for each body part using high accurate 2D/3D skeleton estimation results

Cause prediction



Prediction of major causes of physical condition

Exercise menu suggestion



AI makes suggestions of exercise menu to solve the predicted causes based on history of changes in physical condition and exercise menu during treatment.

Future prospects

Enable people to access personalized physical care anytime and anywhere

