

Longevity Risk and Fintech

Long-term Care Experiences in Japan

1:What's going on in Japan

2:How can we solve these issues

3:What kind of the future do you want to create



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Tetsushi Yamaguchi
General Manager of Reinsurance Dept. Of
The Gibraltar Life insurances Co., Ltd

What's going on in Japan

Current State and Future Outlook on Aging

The total population of Japan is 126.93 million

The number of the elderly aged 65 and over is 34.59 million

The percentage of the elderly people

26.8% 2016



The coming of

“ Super Aging Society ”

1990	2010	2025	2060
$\frac{1}{5.1}$	$\frac{1}{2.6}$	$\frac{1}{1.8}$	$\frac{1}{1.2}$

Change of social structure in the population
One person is supported by 1.2 people in 2060

life expectancy at birth and healthy life expectancy at birth

Healthy life expectancy at birth has increased,
but growth is smaller than average life expectancy at birth

male

Healthy Life Expectancy at Birth	71.19	9.02
Life Expectancy at Birth		80.21

Female

Healthy Life Expectancy at Birth	74.21	12.4
Life Expectancy at Birth		86.61



poor health? in need LTC?

HOW about in JAPAN

In Japan, long-term care insurance system started in **2000**, in about 15 years ···

**Increase
in
who need
LTC**

2.18 million → **6.08** million
2000 **2015**

About **2.8** times
in 15 years

**Increase
of
Dementia**

4.26 million → **7.30** million
2012 **2025**

in 2025, **1** of **8** people

**Anxiety
about
social
security**

36 billion → **10.4** billion
2000 **2015**

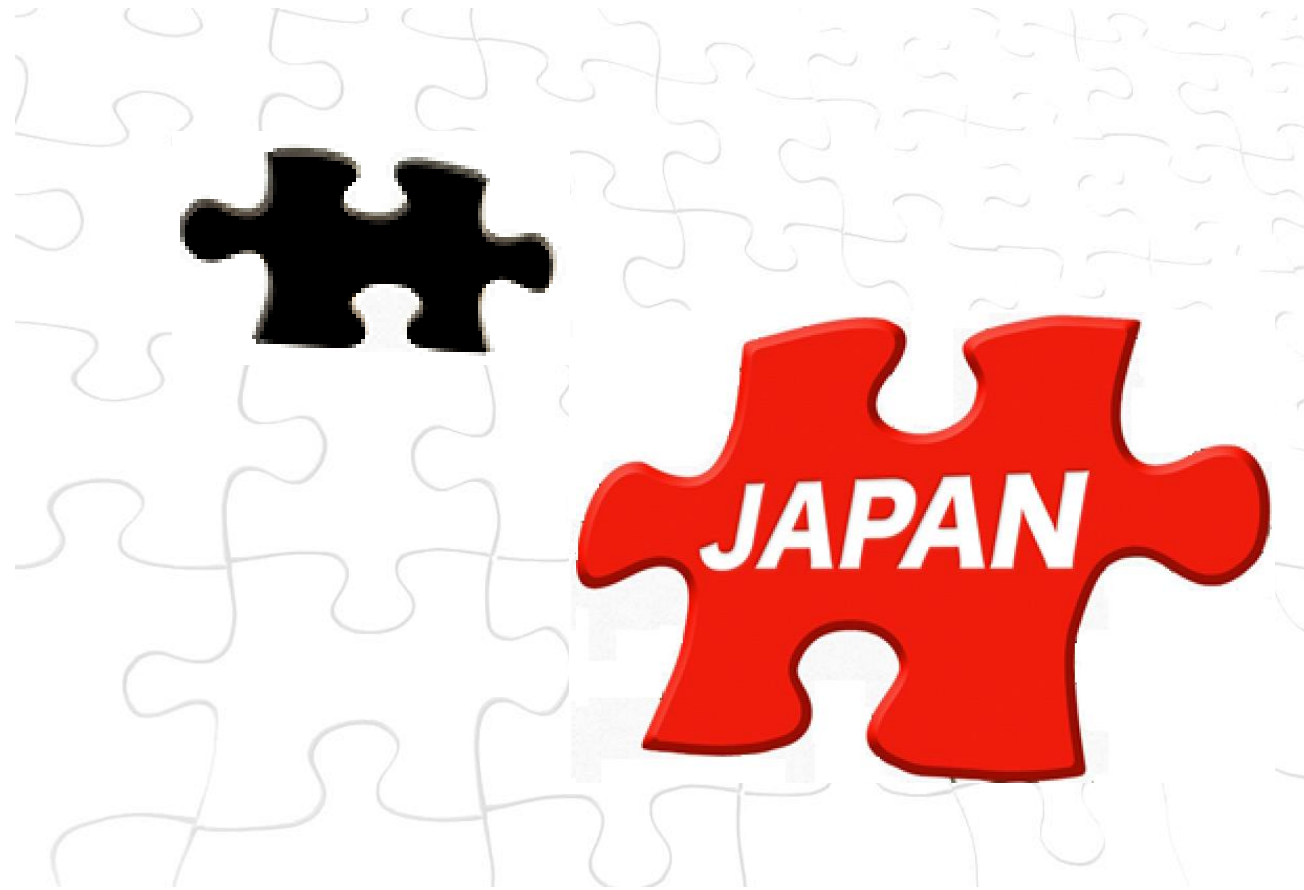
About **2.9** times
in 15 years



**If the elderly falls lost in hopeless feeling
in the rest of life
because of “poor health” and “in need LTC“...**

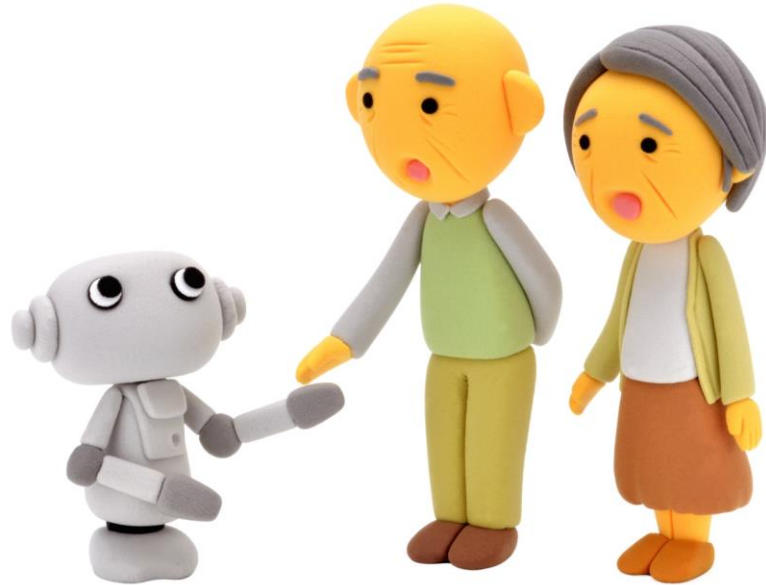
Longevity would be cruel for the elderly

What will happen in **Japan**?



How can we **solve** these **issues** we are facing?

Utilization LTC robot · ICT



Additional Information 1

Additional Information 2

1

How can we reduce the burden of nursing care, and Rehabilitation

the 8 items in 5 priority areas

home

care
home

Outdoors

Transfer aids

Mobility aids

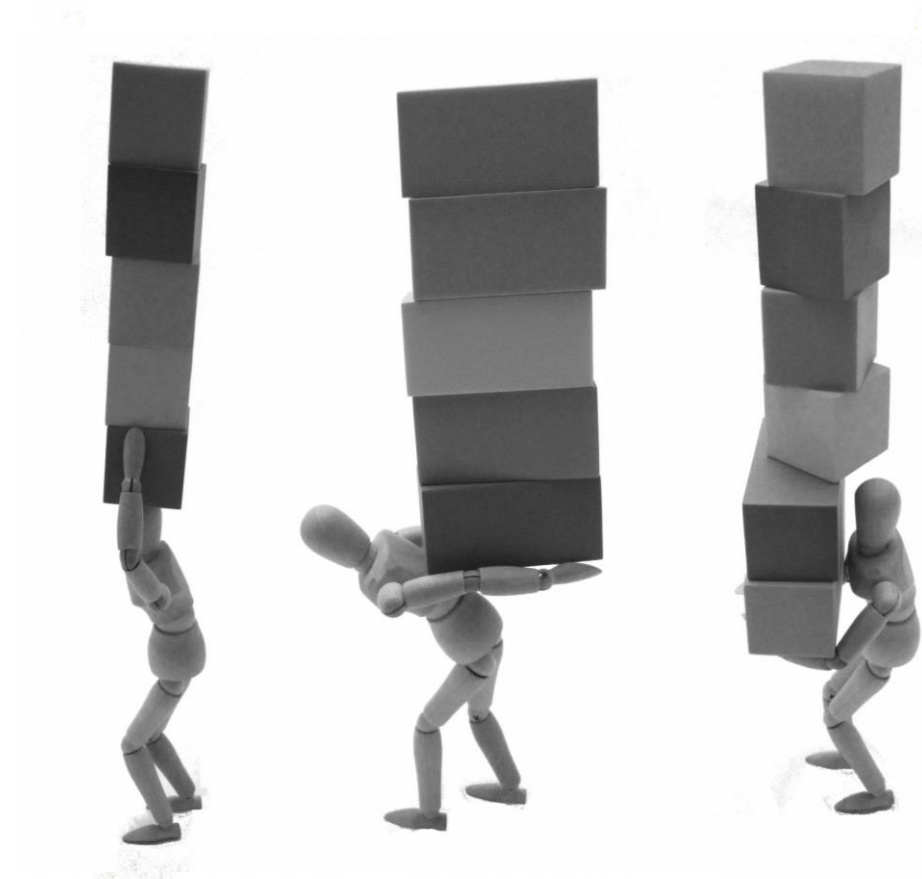
Toileting aids

Bathing aids

Monitoring systems



Rehabilitation Robot



2

How can we prevent **dementia** or improve for **brain functions**?

the 8 items in 5 priority areas

home

Transfer aids

Mobility aids

care home

Toileting aids

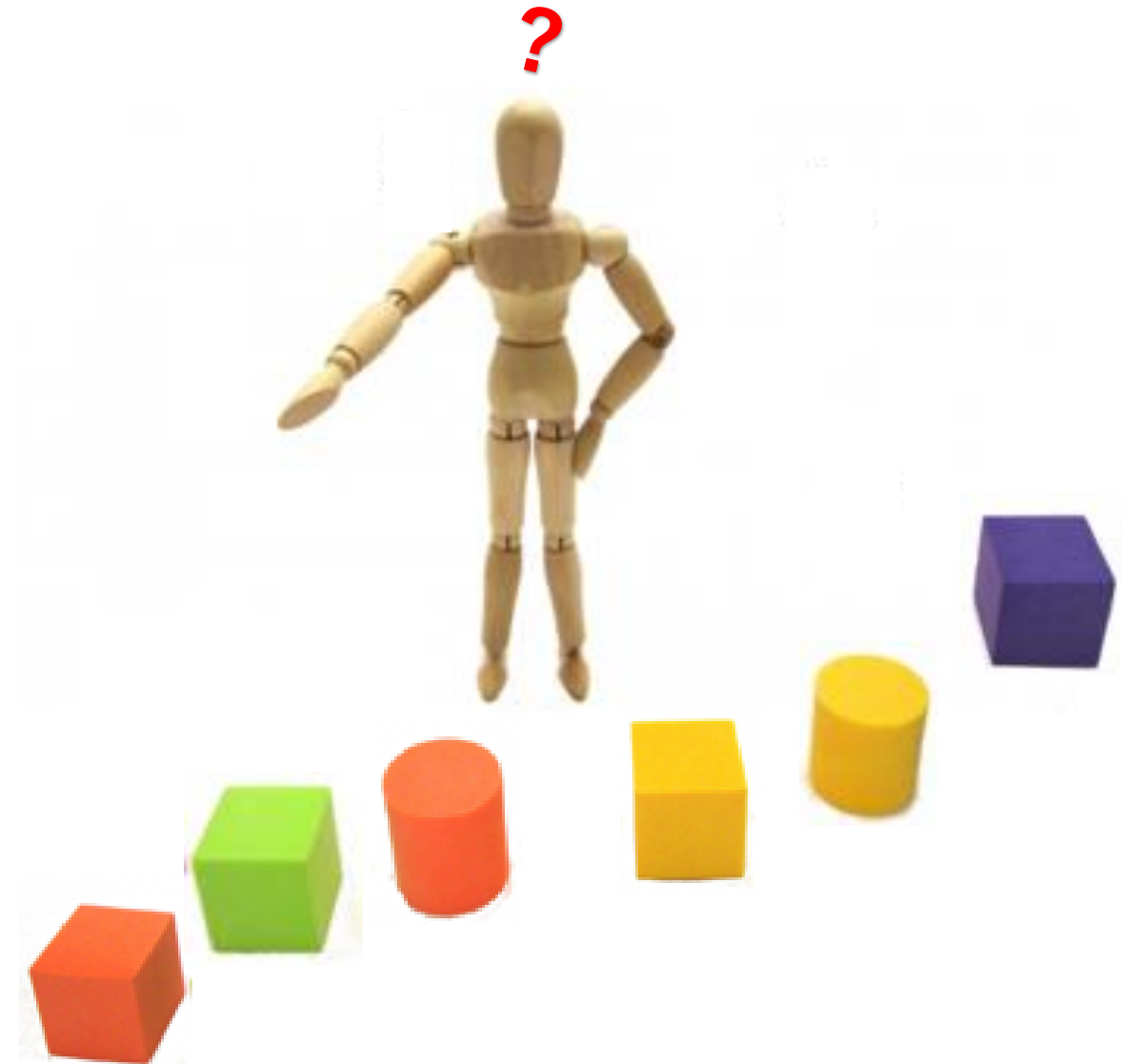
Bathing aids

Outdoors

Monitoring systems



Communication Robot



3

How to get **vital data** and **activity log** in a timely ?

For Using of it as **health maintenance**

For watching elderly people with **dementia**



By using
smart Sensing
< Communication standard >
Wifi · 3G / LTE · BLE
※MEMS [Micro Electro Mechanical Systems]



smart sensing can change our life

A

Wearable device

Example / my preference (2017)

heart rate measurement wear

Hitoe

- Hitoe® is a functional material for **unconsciously** collecting **biological Traffic Lights** that are weak electric Traffic Lights that we unconsciously emit from the body unconsciously.
- Hitoe® directly senses the potential difference caused by **the heart beat**. It is possible to measure heart rate by this.



BioStampRC(MC10)

- The gyro, accelerometer IC and the electrode are arranged compactly in the waterproof **type skin-contactable stamp sensor**.
- motion information (angular velocity and acceleration) and surface electromyogram simultaneously.



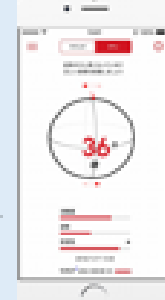
Skin-attached nano-mesh sensor

- Long-term skin breathing possible
- Expectation for application to long-term biometrics
- ※20170718DrSomeyaPJ
According to News Release



JINS MEME

- Eyeglass-type wearable device "JINS MEME" acquires movement of eyes and body with 3D sensor etc.
- Possibility of ultra-early prognosis of dementia is expected from grasping problems of walking exercise and movement of eyes.

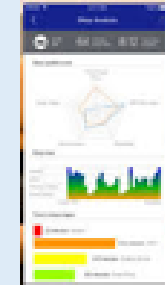


Possibility of early detection
Dementia

CALM

<https://www.calm-health.com/ja/>

- CALM. The wearable sensor measures **cardiac potential**, acceleration and temperature and performs analysis using **original AI algorithm**.
- Based on this information, we will visualize optimal training load setting and fatigue recovery, and we will look into competition in perfect condition. equipped with AI

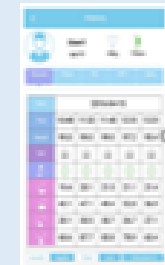


prevention of
Heart attack

KETTO

E3 (<http://e3e.jp/>)

- We use **MHC** system to not use needles.
- "KETTO" is a health care device that can measure blood sugar levels without pain without using a needle just by pinching your finger in the finger clip.



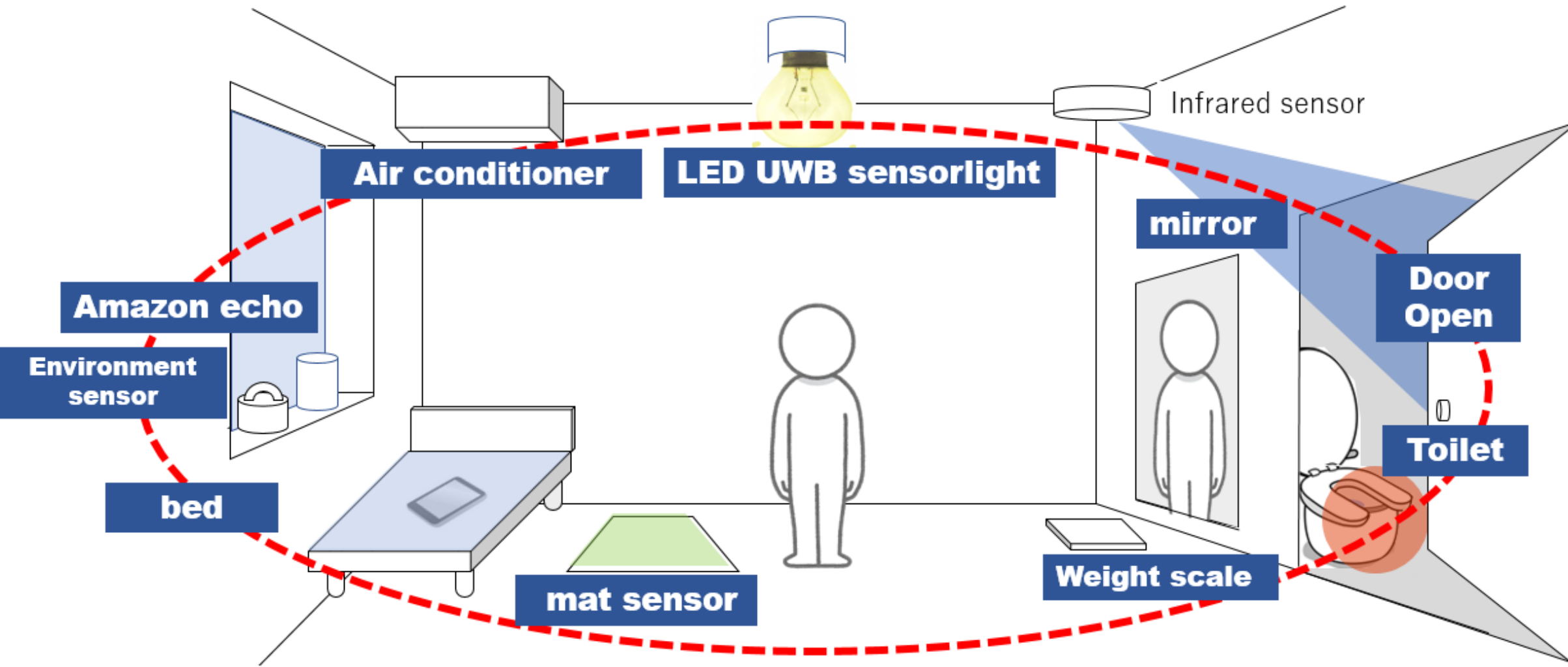
for control
Diabetes

Be wearable devices, become **casual wear,
and **connect** with our daily life**

B

Home/nursing care home

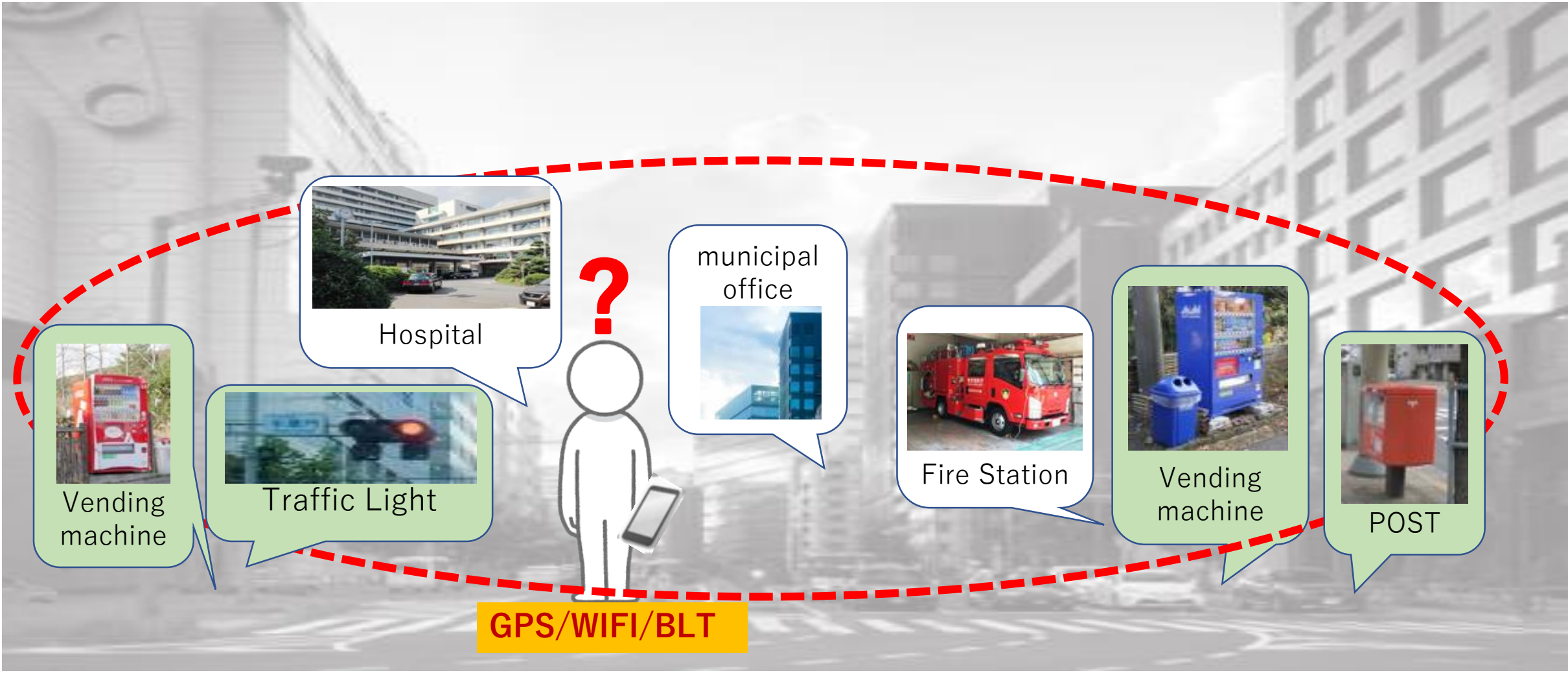
Example / my preference



Harmonize the technology and our daily living,
help everyone live in **health** and **independent**



Community



Create and connect the technology
to watch over our community , without invasion of privacy

Required Perspective

individual

connect

with
Daily life

Home / Facility

Harmonize

with
Daily life

Town/city

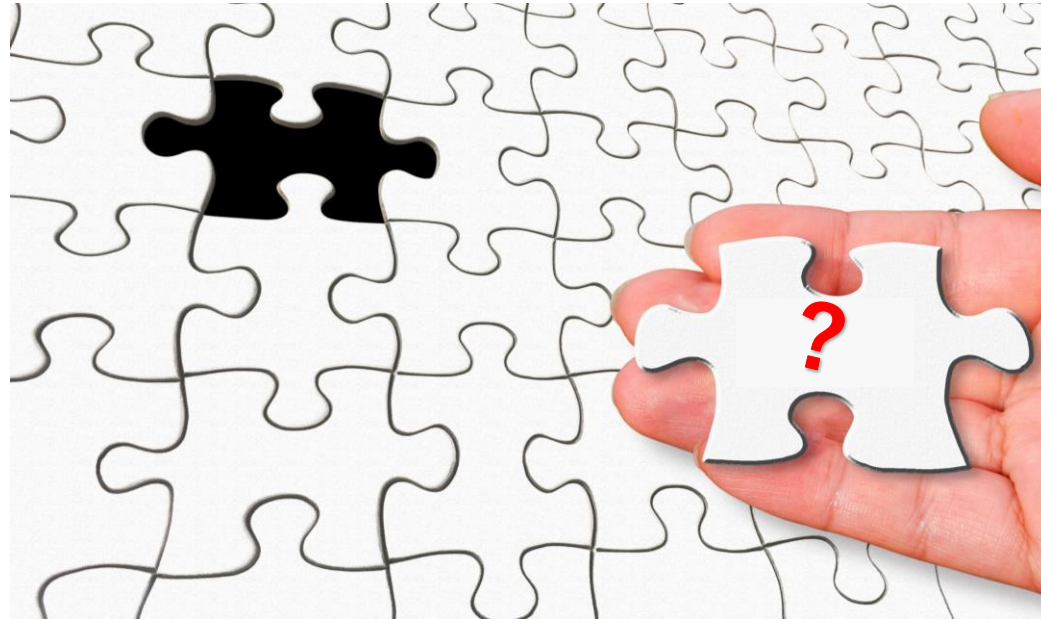
Create

Safety
community

These technologies enable to support the community life of the elderly people while maintaining health, respect and independence.

Finally,
I have a question

What kind of **the future**
do you want to **create**?



The future

I want to create is •••

Finally, I have a **proposal**

For your **Family**

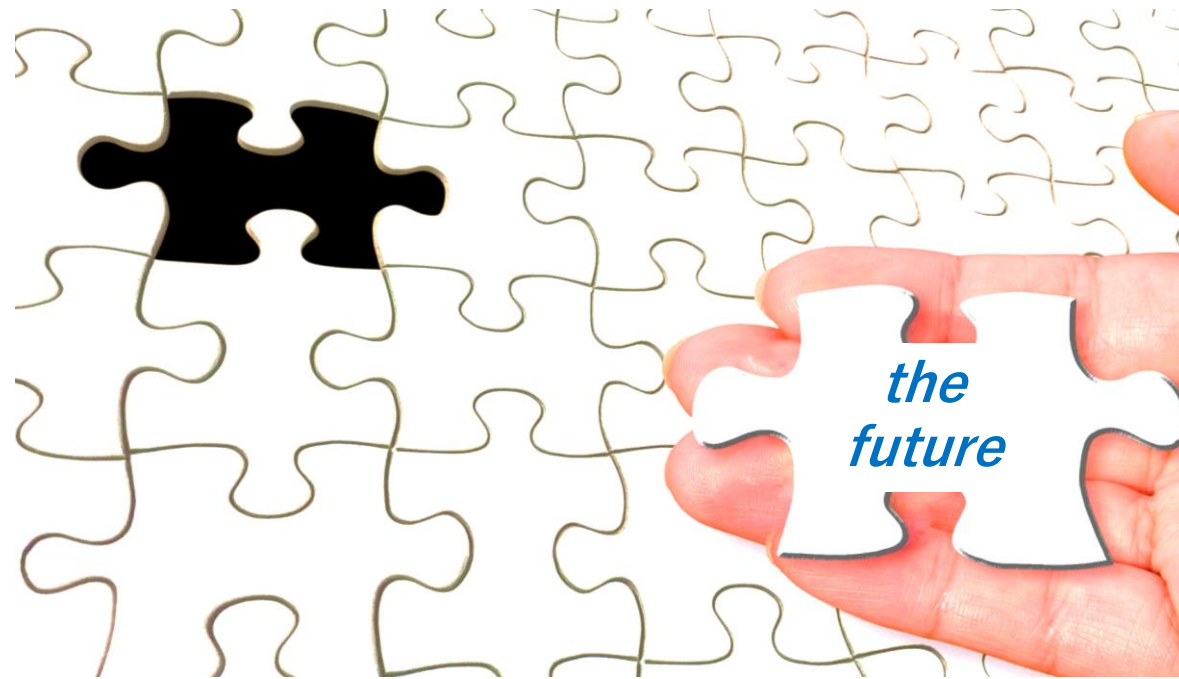
For your **loved ones**

and

For your **own future**

Let's **create The future**

Let's create the future together



The background of the image is a clear, vibrant blue sky filled with soft, wispy white clouds. The clouds are scattered across the frame, with a denser cluster in the middle-left area and smaller patches towards the bottom right.

**Thank you for
your attention**

I hope I can see you again