

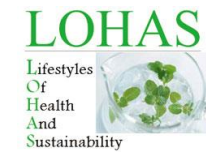
## Regional Innovation Strategies in Fukushima - Next-Generation Healthcare System-



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## LOHAS Engineering



Our College educates and researches engineering from the perspective of Lifestyles of Health and Sustainability (LOHAS).

(1) Sustainable Systems Engineering



Eco-friendly house without external power supply

(2) Bio-Medical Engineering



Next-generation health care system

## College of Engineering Nihon University R & D system Industry-Academia-Government Collaboration

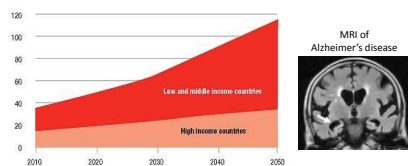


## Background

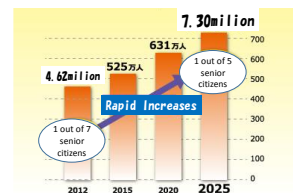
of Regional innovation Strategies in Fukushima

## Growth in Number of People with Dementia in High and Low Income Countries

● WHO reported that number of dementia cases in the world may increase to 65 million in 2030.



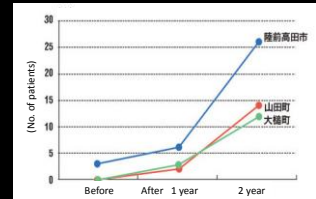
## Changes of Population of Senior Citizens with Dementia in Japan



## Strong Mental Stress Due to Great East Japan Earthquake of 2011



## Increase of Stroke Patients after the Great East Japan Earthquake



## Aims & Core Technologies

of Regional Innovation Strategies in Fukushima

## Our Aim: Realize an “Active Aging Society”

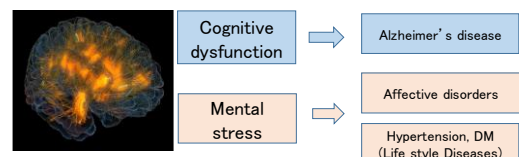


## Proposed Key Technologies for an Active Aging Society

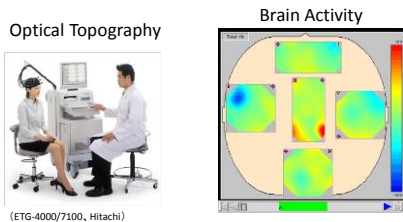
- (1) Brain healthcare based on neuroscience
- (2) Sensor technology to monitor health conditions
- (3) Information and Communications Technology (ICT)

## ① Brain Health Care Based on Neuroscience

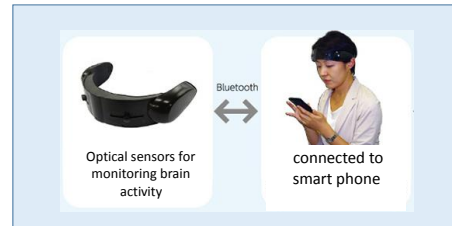
Brain Healthcare can prevent various  
physical and mental illness



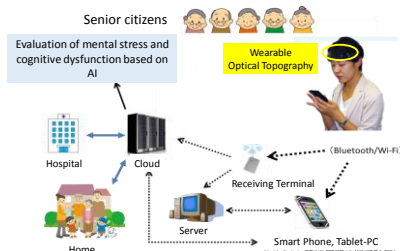
## Imaging of the Brain by Optical Topography



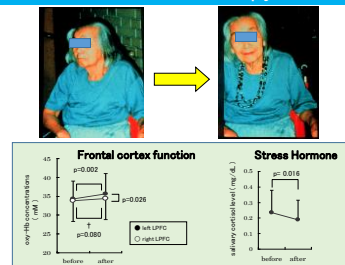
## Wearable Optical Topography



## ICT-Healthcare System of Mind & Brain

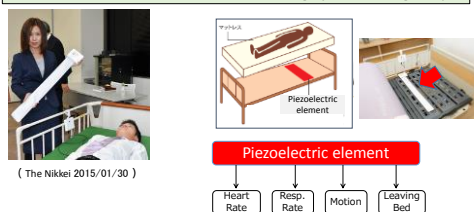


## Cosmetic Therapy



## (2) Sensor Technology to Monitor Health Condition

### Home Device for Remote Health Monitoring System during sleep



## L-CUB (Local Community Unit Business)



## Our Goal

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### Fukushima LOHAS Community Project

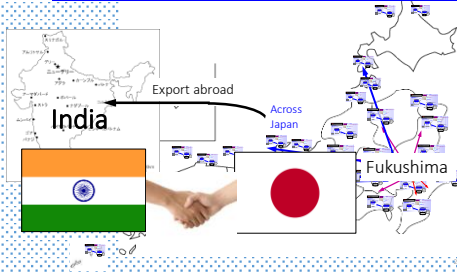


Next-generation  
Healthcare system

+

Renewable energy  
technology

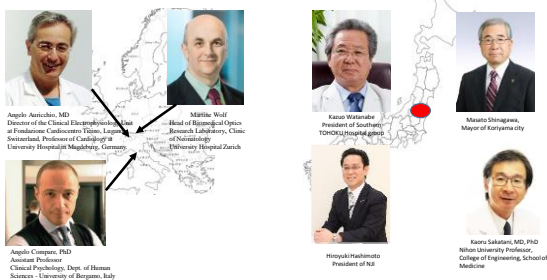
### National and International Expansion of Our Next-Generation Healthcare System (Fukushima model)



### Summary

- 1) In order to realize the active aging society, we proposed the three key technologies, including Brain healthcare, Sensor technology, and ICT.
- 2) Optical Topography allows non-invasive imaging of the Brain function, and plays an important role in brain health care.
- 3) The LOHAS community is supported by the next-generation healthcare system and the renewable energy technology.
- 4) The LOHAS community may be useful in the areas where infrastructure is not sufficiently developed.

### Core Project Members in Japan and EU



Thank you!  
बहुत धन्यवाद

